OFFICIAL U.S. EPA CORRESPONDENCE

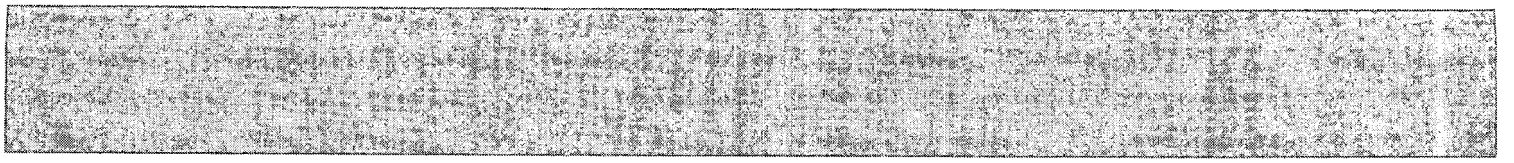
97210KPPRS7540N
MR. AMOS KAMERER
OR CURRENT ENVIRONMENTAL MANAGER
KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, OR 97210-3663

Duplicate to sct
dated 9/21/00

RECEIVED

SEP 18 2000

KOPPERS INDS, INC.
PORTLAND OR



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U.S. ENVIRONMENTAL PROTECTION AGENCY
TRI PROGRAM DIVISION
WASHINGTON, D.C. 20460

97210KPPRS7540N
MR. AMOS KAMERER OR CURRENT ENVIRONMENTAL MANAGER
KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, OR 97210-3663

TOXIC RELEASE INVENTORY
FACILITY DATA PROFILE

This notice provides information recently submitted by you in your Form R or Form A reports, or corrections included in a response to a previous Facility Data Profile, that we have entered into the Toxic Release Inventory database.

The EPA wishes to accurately represent the data reported by your facility. We believe our data capture process is of high quality. However, as a final quality measure, please verify the data presented in the enclosed Facility Data Profile. This Facility Data Profile serves two primary purposes. First, we want to give you the opportunity to confirm that we have entered your data correctly into our national computer system. If we have not, advise us so we can make corrections. Second, if we identify potential errors in the forms you have submitted, we indicate what these errors are and request that you provide us with corrections.

If the data presented in the enclosed Facility Data Profile do not match those on the form(s) you submitted, or if we have identified errors in your forms, or if you have discovered an error in your submitted data, **please respond within 21 days of receipt of this notice.** If we have identified errors in your submitted data, you must respond with corrections to these errors. **Depending on the severity of the error we have identified, failure to correct errors could result in the issuance of a notice of noncompliance.**

The enclosed Facility Data Profile is comprised of the following sections:

Instruction and Signature page – This first page provides instructions for how to review and respond to this Facility Data Profile.

Facility Information (Primary Facility) - This section displays all facility specific data that you provided, inclusive of TRI Facility Identification, facility name, facility address, facility mailing address, relevant permits (e.g., RCRA, NPDES, and UIC), Standard Industrial Classification code (SIC), and other facility data.

Facility Information (Establishment) - If you have reported as a multi-establishment facility, we are providing these subordinate facility data.

Chemical Summary - This section lists all chemicals reported by your facility for each reporting Year affected by this Facility Data Profile. For example, if this Facility Data Profile is responding to five original chemical submissions for reporting year 1999 and revisions to one chemical for reporting year 1998, a list of all chemicals for both years will appear.

Chemical Reports for this Facility or Establishment - All recently processed Form R or Form A submission data (i.e., chemical specific data) are displayed here under the appropriate facility or subordinate facility names. This Facility Data Profile prints chemical reports for recent submissions, revisions or responses to Facility Data Profile only. Hence there may be fewer chemical reports than chemicals listed in the Chemical Summary section. If only facility level changes have occurred (i.e., Part I of the Form R or A), this section is not provided.

The enclosed Facility Data Profile only covers those Form R or Form A reports which have completed our internal data quality checks. If any new Form R or A reports or revisions submitted by your facility are not covered by the enclosed Facility Data Profile, you will be receiving additional correspondence from us.

Please read and follow the instructions on the first page of the enclosed Facility Data Profile. If you need to respond to the Facility Data Profile, **please respond within 21 days of receipt**.

If you have any questions concerning this notice, please contact the EPCRA Reporting Center at: 703-816-4434 (EPCRA Reporting Center User Support, ask for TRI Mailouts)
or e-mail at: tri_mailouts@epcra.org. You may also wish to check EPA's TRI website for TRI information and updates at http://www.epa.gov/tri/ .

Thank you for your cooperation in this matter.

Sincerely,

/S/ *Bruce Schillo*, Chief
TRI Information and Outreach Branch (MS-2844)

INSTRUCTIONS FOR RESPONDING TO TRI FACILITY DATA PROFILE

1. This Facility Data Profile presents the information you have submitted on the Form R and A reports and that EPA has fully processed. The specific chemicals covered by this Facility Data Profile are shown in the Chemical Summary section.

2. Please review this Facility Data Profile to make sure that EPA has accurately entered your submitted information. If any of the data are incorrect, or you have discovered an error in your submitted data, please circle the incorrect information and indicate the correct information next to it. Please print clearly and use a dark black or blue ink pen. Do not use this response to withdraw a particular Form R or A.

3. If we have identified any potential errors in your submitted data (there will be one or more sections titled Errors Identified), please correct the error by circling the incorrect value and indicate the correct value next to it. Please print clearly and use a dark black or blue pen. If you believe that an error we have identified is really not an error, please provide a brief explanation in the space provided.

4. If you are making any corrections pursuant to the instruction in steps 2 and 3 above, you must sign the certification statement below. Then mail this signed page plus all pages on which you have marked corrections. Do not return pages on which you have neither marked changes nor provided explanations. **Please mail your response within 21 days of receipt of this Facility Data Profile to the address indicated at the bottom of this page and also send a duplicate copy to the same State organization to which you sent a copy of your original submission.** EPA recommends that Government-Owned-Contractor-Operated (GOCO) facilities send copies of their responses to their associated Federal facilities.

5. If you identify no errors in the data presented here and we have identified no errors, no response is necessary.

CERTIFICATION STATEMENT

I certify that I have reviewed the attached pages from the Facility Data Profile, and to the best of my knowledge and belief, the information and any corrections I have made to it are true and complete and that the amounts and values presented are accurate based on reasonable estimates using data available to the preparers of this response.

_____

Name and official Title of Owner/Operator or Senior Management Official (Print)

_____ _____

Signature Date

RESPONSE ADDRESSES	
Regular Mail: The EPCRA Reporting Center Attn: Facility Data Profile Response P.O. Box 3348 Merrifield, VA 22116-3348	Certified Mail, Overnight Delivery, Hand Delivery: EPCRA Reporting Center (Tel: 703-816-4445) Attn: Facility Data Profile Response C/O Computer Based Systems Inc. 4600 North Fairfax Drive Suite 300 Arlington, VA 22203
And send copy to your state.	

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FACILITY INFORMATION:

TRI Facility Identification No: 97210KPPRS7540N

Internal Use - Facility ID: 39512

Primary Facility Name and Address:

KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, COUNTY: MULTNOMAH OR 97210-3663

Mailing Address:

NA

Technical Contact Name: MR. AMOS KAMERER

Telephone No: 503-286-3681

Public Contact Name: MR. AMOS KAMERER

Telephone No: 503-286-3681

Latitude: 045-34-52

Longitude: 122-45-28

Facility Type (Federal/GOCO/Commercial): COMMERCIAL

Name of Parent Company: KOPPERS INDS. INC.

Parent Company Dun & Bradstreet No: 196991582

SIC Code	Facility Dun & Bradstreet No	EPCRA (RCRA No.)	Facility NPDES No	Underground Injection Well Code(s):
2865	027734359	ORD027734359	OR0101003	NA
NA	NA	NA	NA	

CHEMICAL REPORT SUMMARY:

* Data for this chemical report (Form R or A) included in the Chemical Reports section of this FDP

File Number	Document Control Number	CAS No./ Category Code	Chemical/Generic/ Mixture Name	Original Post Mark Date	Post Mark Date	Received Date
Reporting Year :	**1998**					
DD-99-00006147-7	13-98-120-17642-5	120127	ANTHRACENE	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17643-7	91203 *	NAPHTHALENE	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17645-2	8001589 *	CREOSOTE	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17646-4	132649 *	DIBENZOFURAN	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17644-9	N590	POLYCYCLIC AROMATIC COMPOUNDS	06-29-1999	06-29-1999	07-02-1999
Reporting Year :	**1999**					
DD-00-00011608-3	13-99-130-39460-6	120127 *	ANTHRACENE	06-30-2000	06-30-2000	07-03-2000
DD-00-00011608-3	13-99-130-39461-8	91203 *	NAPHTHALENE	06-30-2000	06-30-2000	07-03-2000
DD-00-00011608-3	13-99-130-39462-0	N590 *	POLYCYCLIC AROMATIC COMPOUNDS	06-30-2000	06-30-2000	07-03-2000
DD-00-00011608-3	13-99-130-39463-2	8001589 *	CREOSOTE	06-30-2000	06-30-2000	07-03-2000

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

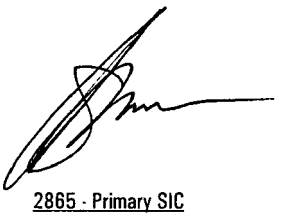
PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: ~~06-30-1999~~ 10-02-2000



4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 91203

1.2. Toxic Chemical or Chemical Category Name: NAPHTHALENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05 Range from 100,000 To 999,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	3	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	22096	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA 6.1.A.2 Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD991301748
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: EXIT 11 OFF I-80
City: KNOLLS State: UT County: TOOELE Country: Zip: 84029
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	1	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

6.2.2 Off-Site EPA Identification Number (EPCRA ID No.) PS8388
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: 7842 PROGRESS WAY
City: BRITISH COLUMBIA V4G1A4 State: County: CA Country: Canada Zip:
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	51	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	1700	22000	28000	28000
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	12000	6300	7900	7900
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **I.3** FACILITY IDENTIFICATION INFORMATION.CERTIFICATION.

ERROR: You did not sign the form and date the signature. You must sign the form and date the signature, part I, section 3.Correct by submitting a complete copy of the chemical report with all certification information.

SUBMITTED:

CAS NUMBER: 91-20-3

CHEMICAL OR CATE NAPHTHALENE

YOUR CORRECTION: Signed And dated on 10-02-2000

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There Are No QUANTITIES IN Section 8.2 Reported, thus, No Correction IS Necessary.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

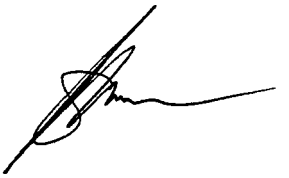
PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: ~~06-30-1999~~ 10-02-2000



4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 8001589

1.2. Toxic Chemical or Chemical Category Name: CREOSOTE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05 Range from 100,000 To 999,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	11	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	16	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) PS8388

Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES

Off-site Address: 7842 PROGRESS WAY

City: BRITISH COLUMBIA V4G1A4 State: County: CA Country: Canada Zip:

Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	206	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	0	230	290	290
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	0	25000	32000	32000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **I.3** FACILITY IDENTIFICATION INFORMATION.CERTIFICATION.

ERROR: You did not sign the form and date the signature. You must sign the form and date the signature, part I, section 3.Correct by submitting a complete copy of the chemical report with all certification information.

SUBMITTED:

CAS NUMBER: 8001-58-9

CHEMICAL OR CATE CREOSOTE

YOUR CORRECTION: Signed And dated on 10-02-00.

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There Are No quantities Reported on Section 8.2, thus, No correction is needed.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: ~~06-30-1999~~ 10-02-2000

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 132649

1.2. Toxic Chemical or Chemical Category Name: DIBENZOFURAN

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: D4 Range from 10,000 To 99,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	2741	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA

6.1.A.2 Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) PS8388

Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES

Off-site Address: 7842 PROGRESS WAY

City: BRITISH COLUMBIA V4G1A4 State: County: CA Country: Canada Zip:

Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	3	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	0	2700	3500	3500
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	0	350	440	440
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **I.3** FACILITY IDENTIFICATION INFORMATION.CERTIFICATION.

ERROR: You did not sign the form and date the signature. You must sign the form and date the signature, part I, section 3.Correct by submitting a complete copy of the chemical report with all certification information.

SUBMITTED:

CAS NUMBER: 132-64-9

CHEMICAL OR CATE DIBENZOFURAN

YOUR CORRECTION: Signed and dated 10-02-2000.

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There are no quantities reported on section 8.2, thus, no corrections are needed.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 120127

1.2. Toxic Chemical or Chemical Category Name: ANTHRACENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 04 Range from 10,000 To 99,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	4	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	NA	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD981552177
Off-Site Location Name: SAFETY-KLEEN, ARAGONITE
Off-site Address: 11600 NORTH APTUS RDAD
City: ARAGONITE State: UT County: Country: Zip: 84029

county: Tooele
country: USA

Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	1	C-MASS BALANCE CALCULATIONS	M50-Incineration/Thermal Treatment

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	210	4	3	4
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	370	63000	43000	52000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	1	1	1
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

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- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **II.6.2.1** TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and address data. For a transfer to a domestic off-site location, you must provide a street address, city, state, county and zip code. For a transfer to a foreign off-site location, you must provide a street address, city and a two character country code.

YOUR CORRECTION: County : Tooele
Country : USA

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There Are no quantities Reported in section 8.2, thus, No corrections Are Needed

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 91203

1.2. Toxic Chemical or Chemical Category Name: NAPHTHALENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 03 Range from 1,000 To 9,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	2530	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 ST. HELENS ROAD CREEK	13	M-DATA MONITORING OR MEASUREMENTS	00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD981552177
Off-Site Location Name: SAFETY-KLEEN, ARAGONITE
Off-site Address: 11600 NORTH APTUS ROAD
City: ARAGONITE State: UT County: Country: Zip: 84029

county: Tooele Country: USA

Location under control of reporting facility or parent company: ND

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	40	C-MASS BALANCE CALCULATIONS	M50-Incineration/Thermal Treatment

7A On-Site Waste Treatment Methods & Efficiency

7A.1
a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	22000	2500	1700	2100
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	6300	48000	32000	39000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	40	27	33
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

ERRORS IDENTIFIED IN THIS REPORT

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- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **II.6.2.1** TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and address data. For a transfer to a domestic off-site location, you must provide a street address, city, state, county and zip code. For a transfer to a foreign off-site location, you must provide a street address, city and a two character country code.

YOUR CORRECTION: County ! Tooele
Country ! USA

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There Are No quantities Reported in section 8.2, thus, No Corrections Are needed

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: N590

1.2. Toxic Chemical or Chemical Category Name: POLYCYCLIC AROMATIC COMPOUNDS

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05 Range from 100,000 To 999,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	42	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	NA	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 ST. HELENS ROAD CREEK	5	M-DATA MONITORING OR MEASUREMENTS	00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) NA

Off-Site Location Name: NA

Off-site Address:

City: State: County: Country: Zip:

Location under control of reporting facility or parent company:

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	NA		

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	1800	47	32	39
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	53000	150000	99000	120000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

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- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There Are no quantities Reported in Section 8.2, thus, No Corrections Are Needed.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 8001589

1.2. Toxic Chemical or Chemical Category Name: CREOSOTE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 03 Range from 1,000 To 9,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	NA	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD981552177
Off-Site Location Name: SAFETY-KLEEN, ARAGONITE
Off-site Address: 11600 NORTH APTUS ROAD
City: ARAGONITE State: UT County: Country: Zip: 84029 County : Tooele , Country : USA

Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	168	C-MASS BALANCE CALCULATIONS	M50-Incineration/Thermal Treatment

7A On-Site Waste Treatment Methods & Efficiency

7A.1
a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	230	0	0	0
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	25000	0	0	0
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	170	110	140
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **II.6.2.1** TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and address data. For a transfer to a domestic off-site location, you must provide a street address, city, state, county and zip code. For a transfer to a foreign off-site location, you must provide a street address, city and a two character country code.

YOUR CORRECTION: County : Tooele, Country : USA

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There Are No quantities Reported in Section 8.2, thus, No corrections Are Needed

ERROR: You reported an estimate in Part II, Section 8.4, column B "Quantity Recycled On-site" but did not provide an on-site recycling code in Part II, Section 7C. Please provide an on-site recycling code for Part II, Section 7C.

YOUR CORRECTION: The estimates for section 8.4 Are for the prior year (1998) only. Creosote was not Recycled in the reporting year of 1999, therefore, No Corrections Are Needed.

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Amos S. Kamerer
Plant Manager

Telephone: 503-286-3681
Fax: 503-285-2831

October 4, 2000

The EPCRA Reporting Center
Attn: Facility Data Reporting Profile Response
P. O. Box 3348
Merrifield, Va. 22116-3348

Reference: TRI Facility Data Profile

Enclosed please find the signed certification sheet on page 5 and the corrections for pages number 9, 12, 13, 16, 17, 20, 22, 24, 26, 28, 32, 34 and 36, this all per your request dated September 21, 2000.

Hopefully, this resolves any questions that you had, if not, please advise.

Sincerely,

Amos S. Kamerer

CC: Mr. Bob Alers
Oregon Emergency Response Center
Office of State Fire Marshall
4760 Portland Road, Northeast
Salem, Oregon 97305-1760

Date: 10/2/00 7:16 PM
Sender: "Kimberly Coy" <SMTP:kcoy@air-comp.com>
To: Amos Kamerer
cc: "1 Jill W Merrill" <SMTP:jmerrill@air-comp.com>
Priority: Normal
Subject: Re: (Fwd: EPA TRI 1999)

Amos:

For the error that reads: "You reported an estimate in Part II, Section 8.4,
Column B "Quantity Recycled On-site", but did not provide an on-site recycling
code in Part II, Section 7C. Please provide an on-site recycling code for Part
II, Section 7C.", your correction may state:

"Estimates for Section 8.4 are for prior year (i.e. 1998) only. Creosote was
not
recycled in the reporting year of 1999 and
therefore, no corrections are
needed."

You only have to complete Section 7C if on-site recycling was conducted for the
report year. I verified this with the EPA hotline.

Please call with any questions.

Kim

Jill Merrill wrote:

> ----------
> Subject: EPA TRI 1999
> Date: Fri, 29 Sep 2000 16:14:33 -0500
> From: <amos_kamerer@koppers.com>
> To: <jmerrill@air-comp.com>
>
> Jill,
>
> I am faxing you pages number 35 and 36 of the Facility Data Profile correction
> request that I received the other day, on the above subject. Can you please
> provide me the
> "on-site recycling code for Part II, Section 7C"?
>
> I have all of the other information that they are requesting.
>
> I would like to get this in the mail on Monday, if possible.
>
> Thanks,
>
> Amos

10/4/00 10:05 AM

Tom Yarbrough
CBSI, EPCRA center.

only respond to the Request dated 9/21/00, not the 9/14/00 request. Somehow there was a duplicate issued, And it would be best to respond to the most recent.

Send the signed Cert. Sheet and only the Corrected pages. Be sure to Cc Oregon State

OFFICIAL U.S. EPA CORRESPONDENCE

97210KPPRS7540N
MR. AMOS KAMERER
OR CURRENT ENVIRONMENTAL MANAGER
KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, OR 97210-3663

RECEIVED
SEP 25 2000
KOPPERS INDS, INC.
PORTLAND OR

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U.S. ENVIRONMENTAL PROTECTION AGENCY
TRI PROGRAM DIVISION
WASHINGTON, D.C. 20460

97210KPPRS7540N
MR. AMOS KAMERER OR CURRENT ENVIRONMENTAL MANAGER
KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, OR 97210-3663

TOXIC RELEASE INVENTORY
FACILITY DATA PROFILE

This notice provides information recently submitted by you in your Form R or Form A reports, or corrections included in a response to a previous Facility Data Profile, that we have entered into the Toxic Release Inventory database.

The EPA wishes to accurately represent the data reported by your facility. We believe our data capture process is of high quality. However, as a final quality measure, please verify the data presented in the enclosed Facility Data Profile. This Facility Data Profile serves two primary purposes. First, we want to give you the opportunity to confirm that we have entered your data correctly into our national computer system. If we have not, advise us so we can make corrections. Second, if we identify potential errors in the forms you have submitted, we indicate what these errors are and request that you provide us with corrections.

If the data presented in the enclosed Facility Data Profile do not match those on the form(s) you submitted, or if we have identified errors in your forms, or if you have discovered an error in your submitted data, **please respond within 21 days of receipt of this notice.** If we have identified errors in your submitted data, you must respond with corrections to these errors. **Depending on the severity of the error we have identified, failure to correct errors could result in the issuance of a notice of noncompliance.**

The enclosed Facility Data Profile is comprised of the following sections:

Instruction and Signature page – This first page provides instructions for how to review and respond to this Facility Data Profile.

Facility Information (Primary Facility) - This section displays all facility specific data that you provided, inclusive of TRI Facility Identification, facility name, facility address, facility mailing address, relevant permits (e.g., RCRA, NPDES, and UIC), Standard Industrial Classification code (SIC), and other facility data.

Facility Information (Establishment) - If you have reported as a multi-establishment facility, we are providing these subordinate facility data.

Chemical Summary - This section lists all chemicals reported by your facility for each reporting Year affected by this Facility Data Profile. For example, if this Facility Data Profile is responding to five original chemical submissions for reporting year 1999 and revisions to one chemical for reporting year 1998, a list of all chemicals for both years will appear.

Chemical Reports for this Facility or Establishment - All recently processed Form R or Form A submission data (i.e., chemical specific data) are displayed here under the appropriate facility or subordinate facility names. This Facility Data Profile prints chemical reports for recent submissions, revisions or responses to Facility Data Profile only. Hence there may be fewer chemical reports than chemicals listed in the Chemical Summary section. If only facility level changes have occurred (i.e., Part I of the Form R or A), this section is not provided.

The enclosed Facility Data Profile only covers those Form R or Form A reports which have completed our internal data quality checks. If any new Form R or A reports or revisions submitted by your facility are not covered by the enclosed Facility Data Profile, you will be receiving additional correspondence from us.

Please read and follow the instructions on the first page of the enclosed Facility Data Profile. If you need to respond to the Facility Data Profile, **please respond within 21 days of receipt.**

If you have any questions concerning this notice, please contact the EPCRA Reporting Center at: 703-816-4434 (EPCRA Reporting Center User Support, ask for TRI Mailouts)
or e-mail at: tri_mailouts@epcra.org. You may also wish to check EPA's TRI website for TRI information and updates at http://www.epa.gov/tri/ .

Thank you for your cooperation in this matter.

Sincerely,

/S/ *Bruce Schillo*, Chief
TRI Information and Outreach Branch (MS-2844)

INSTRUCTIONS FOR RESPONDING TO TRI FACILITY DATA PROFILE

1. This Facility Data Profile presents the information you have submitted on the Form R and A reports and that EPA has fully processed. The specific chemicals covered by this Facility Data Profile are shown in the Chemical Summary section.

2. Please review this Facility Data Profile to make sure that EPA has accurately entered your submitted information. If any of the data are incorrect, or you have discovered an error in your submitted data, please circle the incorrect information and indicate the correct information next to it. Please print clearly and use a dark black or blue ink pen. Do not use this response to withdraw a particular Form R or A.

3. If we have identified any potential errors in your submitted data (there will be one or more sections titled Errors Identified), please correct the error by circling the incorrect value and indicate the correct value next to it. Please print clearly and use a dark black or blue pen. If you believe that an error we have identified is really not an error, please provide a brief explanation in the space provided.

4. If you are making any corrections pursuant to the instruction in steps 2 and 3 above, you must sign the certification statement below. Then mail this signed page plus all pages on which you have marked corrections. Do not return pages on which you have neither marked changes nor provided explanations. **Please mail your response within 21 days of receipt of this Facility Data Profile to the address indicated at the bottom of this page and also send a duplicate copy to the same State organization to which you sent a copy of your original submission.** EPA recommends that Government-Owned-Contractor-Operated (GOCO) facilities send copies of their responses to their associated Federal facilities.

5. If you identify no errors in the data presented here and we have identified no errors, no response is necessary.

CERTIFICATION STATEMENT
I certify that I have reviewed the attached pages from the Facility Data Profile, and to the best of my knowledge and belief, the information and any corrections I have made to it are true and complete and that the amounts and values presented are accurate based on reasonable estimates using data available to the preparers of this response.

Amos S. Kamerer, Plant Manager
Name and official Title of Owner/Operator or Senior Management Official (Print)

Signature

10/4/00
Date

RESPONSE ADDRESSES	
Regular Mail: The EPCRA Reporting Center Attn: Facility Data Profile Response P.O. Box 3348 Merrifield, VA 22116-3348	Certified Mail, Overnight Delivery, Hand Delivery: EPCRA Reporting Center (Tel: 703-816-4445) Attn: Facility Data Profile Response C/O Computer Based Systems Inc. 4600 North Fairfax Drive Suite 300 Arlington, VA 22203
And send copy to your state.	

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FACILITY INFORMATION:

TRI Facility Identification No: 97210KPPRS7540N

Internal Use - Facility ID: 39512

Primary Facility Name and Address:

KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, COUNTY: MULTNOMAH OR 97210-3663

Mailing Address:

NA

Technical Contact Name: MR. AMOS KAMERER

Telephone No: 503-286-3681

Public Contact Name: MR. AMOS KAMERER

Telephone No: 503-286-3681

Latitude: 045-34-52

Longitude: 122-45-28

Facility Type (Federal/GOCO/Commercial): COMMERCIAL

Name of Parent Company: KOPPERS INDS. INC.

Parent Company Dun & Bradstreet No: 196991582

SIC Code	Facility Dun & Bradstreet No	EPCRA (RCRA No.)	Facility NPDES No	Underground Injection Well Code(s):
2865	027734359	ORD027734359	OR0101003	NA
NA	NA	NA	NA	

CHEMICAL REPORT SUMMARY:

* Data for this chemical report (Form R or A) included in the Chemical Reports section of this FDP

File Number	Document Control Number	CAS No./ Category Code	Chemical/Generic/ Mixture Name	Original Post Mark Date	Post Mark Date	Received Date
Reporting Year :	**1998**					
DD-99-00006147-7	13-98-120-17642-5	120127	ANTHRACENE	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17643-7	91203 *	NAPHTHALENE	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17645-2	8001589 *	CREOSOTE	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17646-4	132649 *	DIBENZOFURAN	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17644-9	N590	POLYCYCLIC AROMATIC COMPOUNDS	06-29-1999	06-29-1999	07-02-1999
Reporting Year :	**1999**					
DD-00-00011608-3	13-99-130-39460-6	120127 *	ANTHRACENE	06-30-2000	06-30-2000	07-03-2000
DD-00-00011608-3	13-99-130-39461-8	91203 *	NAPHTHALENE	06-30-2000	06-30-2000	07-03-2000
DD-00-00011608-3	13-99-130-39462-0	N590 *	POLYCYCLIC AROMATIC COMPOUNDS	06-30-2000	06-30-2000	07-03-2000
DD-00-00011608-3	13-99-130-39463-2	8001589 *	CREOSOTE	06-30-2000	06-30-2000	07-03-2000

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

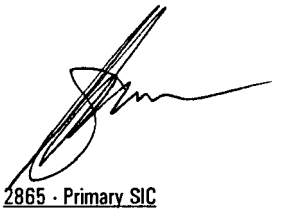
PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: ~~06-30-1999~~ 10-02-2000



4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 · Primary SIC

a. **An entire facility:** YES

b. **Part of a facility:** NO

c. **A Federal Facility:** NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 91203

1.2. Toxic Chemical or Chemical Category Name: NAPHTHALENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO
D. For sale/distribution: NO
E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO
B. As a formulation component: NO
C. As an article component: YES
D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO
B. As a manufacture aid: NO
C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05 Range from 100,000 To 999,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	3	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	22096	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD991301748
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: EXIT 11 OFF I-80
City: KNOLLS State: UT County: TOOELE Country: Zip: 84029
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	1	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

6.2.2 Off-Site EPA Identification Number (EPCRA ID No.) PS8388
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: 7842 PROGRESS WAY
City: BRITISH COLUMBIA V4G1A4 State: County: CA Country: Canada Zip:
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	51	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	1700	22000	28000	28000
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	12000	6300	7900	7900
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us In correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: I.3 FACILITY IDENTIFICATION INFORMATION.CERTIFICATION.

ERROR: You did not sign the form and date the signature. You must sign the form and date the signature, part I, section 3.Correct by submitting a complete copy of the chemical report with all certification information.

SUBMITTED:

CAS NUMBER: 91-20-3

CHEMICAL OR CATE NAPHTHALENE

YOUR CORRECTION: Signed and dated 10-02-2000.

PARAGRAPH: II.7B, 8.2B MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There are no quantities reported in section 8.2, thus, No corrections needed.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: ~~06-30-1999~~ 10-02-2000

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 8001589

1.2. Toxic Chemical or Chemical Category Name: CREOSOTE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO
D. For sale/distribution: NO
E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO
B. As a formulation component: NO
C. As an article component: YES
D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO
B. As a manufacture aid: NO
C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05 Range from 100,000 To 999,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	11	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	16	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) PS8388

Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES

Off-site Address: 7842 PROGRESS WAY

City: BRITISH COLUMBIA V4G1A4 State: County: CA Country: Canada Zip:

Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	206	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	0	230	290	290
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	0	25000	32000	32000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **I.3** FACILITY IDENTIFICATION INFORMATION.CERTIFICATION.

ERROR: You did not sign the form and date the signature. You must sign the form and date the signature, part I, section 3.Correct by submitting a complete copy of the chemical report with all certification information.

SUBMITTED:

CAS NUMBER: 8001-58-9

CHEMICAL OR CATE CREOSOTE

YOUR CORRECTION: Dated and Signed on 10-02-2000.

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There are no quantities Reported in section 8.2, thus, No corrections are needed.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: ~~06-30-1999~~ 10-02-2000

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. **An entire facility:** YES

b. **Part of a facility:** NO

c. **A Federal Facility:** NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 132649

1.2. Toxic Chemical or Chemical Category Name: DIBENZOFURAN

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical: If Produce or Import:

A. Produce: YES

C. For on-site use/processing: NO
D. For sale/distribution: NO

B. Import: NO

E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 04 Range from 10,000 To 99,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	**A. Total Release**	**B. Basis of Estimate**
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	2741	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies **Stream or water body name:**	**A. Total Release**	**B. Basis of Estimate**	**C. % from Stormwater**
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA

6.1.A.2 Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) PS8388
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: 7842 PROGRESS WAY
City: BRITISH COLUMBIA V4G1A4 State: County: CA Country: Canada Zip:
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	3	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	0	2700	3500	3500
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	0	350	440	440
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

ERRORS IDENTIFIED IN THIS REPORT

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- Correct the error in the space provided in this section
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- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: I.3 FACILITY IDENTIFICATION INFORMATION.CERTIFICATION.

ERROR: You did not sign the form and date the signature. You must sign the form and date the signature, part I, section 3.Correct by submitting a complete copy of the chemical report with all certification information.

SUBMITTED:

CAS NUMBER: 132-64-9

CHEMICAL OR CATE DIBENZOFURAN

YOUR CORRECTION: Dated and signed on 10-02-2000.

PARAGRAPH: II.7B, 8.2B MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There are no quantities reported in section 8.2, thus, No corrections are needed.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 120127

1.2. Toxic Chemical or Chemical Category Name: ANTHRACENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 04 Range from 10,000 To 99,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	4	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	NA	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD981552177
Off-Site Location Name: SAFETY-KLEEN, ARAGONITE
Off-site Address: 11600 NORTH APTUS ROAD
City: ARAGONITE State: UT County: Country: Zip: 84029 county: Tooele, country: USA
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	1	C-MASS BALANCE CALCULATIONS	M50-Incineration/Thermal Treatment

7A On-Site Waste Treatment Methods & Efficiency

7A.1
a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0 Source Reduction & Recycling Activities

		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	210	4	3	4
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	370	63000	43000	52000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	1	1	1
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
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- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **II.6.2.1** TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and address data. For a transfer to a domestic off-site location, you must provide a street address, city, state, county and zip code. For a transfer to a foreign off-site location, you must provide a street address, city and a two character country code.

YOUR CORRECTION: County : Tooele , Country : USA

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There Are no quantities Reported IN Section 8.2, thus, No corrections Are Needed.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 91203

1.2. Toxic Chemical or Chemical Category Name: NAPHTHALENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO
D. For sale/distribution: NO
E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO
B. As a formulation component: NO
C. As an article component: YES
D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO
B. As a manufacture aid: NO
C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 03 Range from 1,000 To 9,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	2530	E-PUBLISHED EMISSIDN FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 ST HELENS ROAD CREEK	13	M-DATA MONITORING OR MEASUREMENTS	00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD981552177
Off-Site Location Name: SAFETY-KLEEN, ARAGONITE
Off-site Address: 11600 NORTH APTUS ROAD
City: ARAGONITE State: UT County: Country: Zip: 84029 County: Tooele, Country: USA
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	40	C-MASS BALANCE CALCULATIONS	M50-Incineration/Thermal Treatment

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	22000	2500	1700	2100
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	6300	48000	32000	39000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	40	27	33
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **II.6.2.1** TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and address data. For a transfer to a domestic off-site location, you must provide a street address, city, state, county and zip code. For a transfer to a foreign off-site location, you must provide a street address, city and a two character country code.

YOUR CORRECTION: County : Tooele, Country : USA

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There Are No quantities Reported in section 8.2, thus, No Corrections Are Needed.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: N590

1.2. Toxic Chemical or Chemical Category Name: POLYCYCLIC AROMATIC COMPOUNDS

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO
D. For sale/distribution: NO
E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO
B. As a formulation component: NO
C. As an article component: YES
D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO
B. As a manufacture aid: NO
C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05 Range from 100,000 To 999,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	42	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	NA	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 ST. HELENS ROAD CREEK	5	M-DATA MONITORING OR MEASUREMENTS	00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA 6.1.A.2 Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) NA

Off-Site Location Name: NA

Off-site Address:

City: State: County: Country: Zip:

Location under control of reporting facility or parent company:

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	NA		

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	1800	47	32	39
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	53000	150000	99000	120000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

ERRORS IDENTIFIED IN THIS REPORT

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- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There Are No QUANTITIES Reported IN Section 8.2, THUS, No CORRECTIONS Are Needed.

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 8001589

1.2. Toxic Chemical or Chemical Category Name: CREOSOTE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO
D. For sale/distribution: NO
E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO
B. As a formulation component: NO
C. As an article component: YES
D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO
B. As a manufacture aid: NO
C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 03 Range from 1,000 To 9,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	NA	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD981552177
Off-Site Location Name: SAFETY-KLEEN, ARAGONITE
Off-site Address: 11600 NORTH APTUS ROAD
City: ARAGONITE State: UT County: Country: Zip: 84029 County: Tooele, Country: USA
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	168	C-MASS BALANCE CALCULATIONS	M50-Incineration/Thermal Treatment

7A On-Site Waste Treatment Methods & Efficiency

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	230	0	0	0
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	25000	0	0	0
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	170	110	140
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

ERRORS IDENTIFIED IN THIS REPORT

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- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH: **II.6.2.1** TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and address data. For a transfer to a domestic off-site location, you must provide a street address, city, state, county and zip code. For a transfer to a foreign off-site location, you must provide a street address, city and a two character country code.

YOUR CORRECTION: County: Tooele, Country: USA

PARAGRAPH: **II.7B, 8.2B** MULTI PARAGRAPH

ERROR: You reported an estimate in Part II, Section 8.2, column B, "Quantity Used for Energy Recovery On-site," but did not provide an on-site energy recovery code in Part II, Section 7B. Please provide an on-site energy recovery code for Part II, Section 7B.

YOUR CORRECTION: There are no quantities reported in section 8.2, thus, no corrections are needed.

ERROR: You reported an estimate in Part II, Section 8.4, column B "Quantity Recycled On-site" but did not provide an on-site recycling code in Part II, Section 7C. Please provide an on-site recycling code for Part II, Section 7C.

YOUR CORRECTION: Estimates for section 8.4 are for the prior year (1998) only. Creosote was not recycled in the reporting year of 1999, therefore, no corrections are needed.

97210KPPRS7540N
MR. AMOS KAMERER
OR CURRENT ENVIRONMENTAL MANAGER
KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, OR 97210-3663

RECEIVED
NOV 20 2000
KOPPERS INDS. INC.
PORTLAND OR

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U.S. ENVIRONMENTAL PROTECTION AGENCY
TRI PROGRAM DIVISION
WASHINGTON, D.C. 20460

97210KPPRS7540N
MR. AMOS KAMERER OR CURRENT ENVIRONMENTAL MANAGER
KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, OR 97210-3663

TOXIC RELEASE INVENTORY
FACILITY DATA PROFILE

This notice provides information recently submitted by you in your Form R or Form A reports, or corrections included in a response to a previous Facility Data Profile, that we have entered into the Toxic Release Inventory database.

The EPA wishes to accurately represent the data reported by your facility. We believe our data capture process is of high quality. However, as a final quality measure, please verify the data presented in the enclosed Facility Data Profile. This Facility Data Profile serves two primary purposes. First, we want to give you the opportunity to confirm that we have entered your data correctly into our national computer system. If we have not, advise us so we can make corrections. Second, if we identify potential errors in the forms you have submitted, we indicate what these errors are and request that you provide us with corrections.

If the data presented in the enclosed Facility Data Profile do not match those on the form(s) you submitted, or if we have identified errors in your forms, or if you have discovered an error in your submitted data, **please respond within 21 days of receipt of this notice.** If we have identified errors in your submitted data, you must respond with corrections to these errors. **Depending on the severity of the error we have identified, failure to correct errors could result in the issuance of a notice of noncompliance.**

The enclosed Facility Data Profile is comprised of the following sections:

Instruction and Signature page – This first page provides instructions for how to review and respond to this Facility Data Profile.

Facility Information (Primary Facility) - This section displays all facility specific data that you provided, inclusive of TRI Facility Identification, facility name, facility address, facility mailing address, relevant permits (e.g., RCRA, NPDES, and UIC), Standard Industrial Classification code (SIC), and other facility data.

Facility Information (Establishment) - If you have reported as a multi-establishment facility, we are providing these subordinate facility data.

Chemical Summary - This section lists all chemicals reported by your facility for each reporting Year affected by this Facility Data Profile. For example, if this Facility Data Profile is responding to five original chemical submissions for reporting year 1999 and revisions to one chemical for reporting year 1998, a list of all chemicals for both years will appear.

Chemical Reports for this Facility or Establishment - All recently processed Form R or Form A submission data (i.e., chemical specific data) are displayed here under the appropriate facility or subordinate facility names. This Facility Data Profile prints chemical reports for recent submissions, revisions or responses to Facility Data Profile only. Hence there may be fewer chemical reports than chemicals listed in the Chemical Summary section. If only facility level changes have occurred (i.e., Part I of the Form R or A), this section is not provided.

The enclosed Facility Data Profile only covers those Form R or Form A reports which have completed our internal data quality checks. If any new Form R or A reports or revisions submitted by your facility are not covered by the enclosed Facility Data Profile, you will be receiving additional correspondence from us.

Please read and follow the instructions on the first page of the enclosed Facility Data Profile. If you need to respond to the Facility Data Profile, **please respond within 21 days of receipt.**

If you have any questions concerning this notice, please contact the EPCRA Reporting Center at: 703-816-4434 (EPCRA Reporting Center User Support, ask for TRI Mailouts)
or e-mail at: tri_mailouts@epcra.org. You may also wish to check EPA's TRI website for TRI information and updates at http://www.epa.gov/tri/ .

Thank you for your cooperation in this matter.

Sincerely,

/S/ *Bruce Schillo*, Chief
TRI Information and Outreach Branch (MS-2844)

INSTRUCTIONS FOR RESPONDING TO TRI FACILITY DATA PROFILE

1. This Facility Data Profile presents the information you have submitted on the Form R and A reports and that EPA has fully processed. The specific chemicals covered by this Facility Data Profile are shown in the Chemical Summary section.

2. Please review this Facility Data Profile to make sure that EPA has accurately entered your submitted information. If any of the data are incorrect, or you have discovered an error in your submitted data, please circle the incorrect information and indicate the correct information next to it. Please print clearly and use a dark black or blue ink pen. Do not use this response to withdraw a particular Form R or A.

3. If we have identified any potential errors in your submitted data (there will be one or more sections titled Errors Identified), please correct the error by circling the incorrect value and indicate the correct value next to it. Please print clearly and use a dark black or blue pen. If you believe that an error we have identified is really not an error, please provide a brief explanation in the space provided.

4. If you are making any corrections pursuant to the instruction in steps 2 and 3 above, you must sign the certification statement below. Then mail this signed page plus all pages on which you have marked corrections. Do not return pages on which you have neither marked changes nor provided explanations. **Please mail your response within 21 days of receipt of this Facility Data Profile to the address indicated at the bottom of this page and also send a duplicate copy to the same State organization to which you sent a copy of your original submission.** EPA recommends that Government-Owned-Contractor-Operated (GOCO) facilities send copies of their responses to their associated Federal facilities.

5. If you identify no errors in the data presented here and we have identified no errors, no response is necessary.

CERTIFICATION STATEMENT

I certify that I have reviewed the attached pages from the Facility Data Profile, and to the best of my knowledge and belief, the information and any corrections I have made to it are true and complete and that the amounts and values presented are accurate based on reasonable estimates using data available to the preparers of this response.

_____

Name and official Title of Owner/Operator or Senior Management Official (Print)

_____ _____

Signature Date

RESPONSE ADDRESSES	
Regular Mail: The EPCRA Reporting Center Attn: Facility Data Profile Response P.O. Box 3348 Merrifield, VA 22116-3348	Certified Mail, Overnight Delivery, Hand Delivery: EPCRA Reporting Center (Tel: 703-816-4445) Attn: Facility Data Profile Response C/O Computer Based Systems Inc. 4600 North Fairfax Drive Suite 300 Arlington, VA 22203
And send copy to your state.	

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FACILITY INFORMATION:

TRI Facility Identification No: 97210KPPRS7540N

Internal Use - Facility ID: 39512

Primary Facility Name and Address:

KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, COUNTY: MULTNOMAH OR 97210-3663

Mailing Address:

NA

Technical Contact Name: MR. AMDS KAMERER

Telephone No: 503-286-3681

Public Contact Name: MR. AMOS KAMERER

Telephone No: 503-286-3681

Latitude: 045-34-52

Longitude: 122-45-28

Facility Type (Federal/GOCO/Commercial): COMMERCIAL

Name of Parent Company: KOPPERS INDS. INC.

Parent Company Dun & Bradstreet No: 196991582

SIC Code	Facility Dun & Bradstreet No	EPCRA (RCRA No.)	Facility NPDES No	Underground Injection Well Code(s):
2865	027734359	ORD027734359	OR0101003	NA
NA	NA	NA	NA	

CHEMICAL REPORT SUMMARY:

* Data for this chemical report (Form R or A) included in the Chemical Reports section of this FDP

File Number	Document Control Number	CAS No./ Category Code	Chemical/Generic/ Mixture Name	Original Post Mark Date	Post Mark Date	Received Date
Reporting Year :	**1998**					
DD-99-00006147-7	13-98-120-17642-5	120127	ANTHRACENE	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17643-7	91203 *	NAPHTHALENE	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17645-2	8001589 *	CREOSOTE	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17646-4	132649 *	DIBENZOFURAN	06-29-1999	06-29-1999	07-02-1999
DD-99-00006147-7	13-98-120-17644-9	N590	POLYCYCLIC AROMATIC COMPOUNDS	06-29-1999	06-29-1999	07-02-1999
Reporting Year :	**1999**					
DD-00-00011608-3	13-99-130-39460-6	120127 *	ANTHRACENE	06-30-2000	06-30-2000	07-03-2000
DD-00-00011608-3	13-99-130-39461-8	91203 *	NAPHTHALENE	06-30-2000	06-30-2000	07-03-2000
DD-00-00011608-3	13-99-130-39462-0	N590 *	POLYCYCLIC AROMATIC COMPOUNDS	06-30-2000	06-30-2000	07-03-2000
DD-00-00011608-3	13-99-130-39463-2	8001589 *	CREOSOTE	06-30-2000	06-30-2000	07-03-2000

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 91203

1.2. Toxic Chemical or Chemical Category Name: NAPHTHALENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05 Range from 100,000 To 999,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	3	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	22096	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD991301748
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: EXIT 11 OFF I-80
City: KNOLLS State: UT County: TOOELE Country: Zip: 84029
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	1	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

6.2.2 Off-Site EPA Identification Number (EPCRA ID No.) PS8388
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: 7842 PROGRESS WAY
City: BRITISH COLUMBIA V4G1A4 State: County: CA Country: Canada Zip:
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	51	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency waste_seq

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	1700	22000	28000	28000
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	NA	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	12000	6300	7900	7900
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	Quntity Released as a Result of Remedial, Catastrophic, or One Time Events	0			
8.9	Production Ratio or Activity Index	1.47			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	NAPHTHALENE		
Document Control Number	13-98-120-17643-7	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

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ERROR: No errors were identified in this submission

YOUR CORRECTION:

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 8001589

1.2. Toxic Chemical or Chemical Category Name: CREOSOTE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05 Range from 100,000 To 999,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	11	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	16	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) PS8388
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: 7842 PROGRESS WAY
City: BRITISH COLUMBIA V4G1A4 State: County: CA Country: Canada Zip:
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	206	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency waste_seq

7A.1
a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	0	230	290	290
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	NA	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	0	25000	32000	32000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	Quntity Released as a Result of Remedial, Catastrophic, or One Time Events	0			
8.9	Production Ratio or Activity Index	1.47			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	CREOSOTE		
Document Control Number	13-98-120-17645-2	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

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ERROR: No errors were identified in this submission

YOUR CORRECTION:

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 132649

1.2. Toxic Chemical or Chemical Category Name: DIBENZOFURAN

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 04 Range from 10,000 To 99,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	2741	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA 6.1.A.2 Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) PS8388
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: 7842 PROGRESS WAY
City: BRITISH COLUMBIA V4G1A4 State: County: CA Country: Canada Zip:
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	3	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency waste_seq

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	0	2700	3500	3500
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	NA	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	0	350	440	440
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	Quntity Released as a Result of Remedial, Catastrophic, or One Time Events	0			
8.9	Production Ratio or Activity Index	1.47			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1998
Chemical Name	DIBENZOFURAN		
Document Control Number	13-98-120-17646-4	Post Mark Date	06-29-1999
File Number	DD-99-00006147-7	Received Date	07-02-1999

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YOUR CORRECTION:

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 120127

1.2. Toxic Chemical or Chemical Category Name: ANTHRACENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 04 Range from 10,000 To 99,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	4	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	NA	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA 6.1.A.2 Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD981552177
Off-Site Location Name: SAFETY-KLEEN, ARAGONITE
Off-site Address: 11600 NORTH APTUS ROAD
City: ARAGONITE State: UT County: TOOELE Country: Zip: 84029
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	1	C-MASS BALANCE CALCULATIONS	M50-Incineration/Thermal Treatment

7A On-Site Waste Treatment Methods & Efficiency waste_seq

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	210	4	3	4
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	NA	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	370	63000	43000	52000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	1	1	1
8.8	Quntity Released as a Result of Remedial, Catastrophic, or One Time Events	0			
8.9	Production Ratio or Activity Index	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	ANTHRACENE		
Document Control Number	13-99-130-39460-6	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

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PARAGRAPH:

ERROR: No errors were identified in this submission

YOUR CORRECTION:

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. **An entire facility:** YES

b. **Part of a facility:** NO

c. **A Federal Facility:** NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 91203

1.2. Toxic Chemical or Chemical Category Name: NAPHTHALENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 03 Range from 1,000 To 9,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	2530	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 ST. HELENS ROAD CREEK	13	M-DATA MONITORING OR MEASUREMENT	100

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD981552177
Off-Site Location Name: SAFETY-KLEEN, ARAGONITE
Off-site Address: 11600 NORTH APTUS ROAD
City: ARAGONITE State: UT County: TOOELE Country: Zip: 84029
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	40	C-MASS BALANCE CALCULATIONS	M50-Incineration/Thermal Treatment

7A On-Site Waste Treatment Methods & Efficiency waste_seq

7A.1
a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	22000	2500	1700	2100
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	NA	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	6300	48000	32000	39000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	40	27	33
8.8	Quntity Released as a Result of Remedial, Catastrophic, or One Time Events	0			
8.9	Production Ratio or Activity Index	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	NAPHTHALENE		
Document Control Number	13-99-130-39461-8	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

ERRORS IDENTIFIED IN THIS REPORT

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- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

PARAGRAPH:

ERROR: No errors were identified in this submission

YOUR CORRECTION:

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for:

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

4.5 SIC Code(s): 2865 - Primary SIC

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: N590

1.2. Toxic Chemical or Chemical Category Name: POLYCYCLIC AROMATIC COMPOUNDS

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05 Range from 100,000 To 999,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	42	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	NA	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 ST. HELENS RDAD CREEK	5	M-DATA MONITORING OR MEASUREMENTS	00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA 6.1.A.2 Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) NA
Off-Site Location Name: NA
Off-site Address:
City: State: County: Country: Zip:
Location under control of reporting facility or parent company:

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	NA		

7A On-Site Waste Treatment Methods & Efficiency waste_seq

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0 Source Reduction & Recycling Activities		Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	1800	47	32	39
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	NA	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	53000	150000	99000	120000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	Quntity Released as a Result of Remedial, Catastrophic, or One Time Events	0			
8.9	Production Ratio or Activity Index	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	POLYCYCLIC AROMATIC COMPOUNDS		
Document Control Number	13-99-130-39462-0	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

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PARAGRAPH:

ERROR: No errors were identified in this submission

YOUR CORRECTION:

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

PART I:

1.0 Reporting Year: 1999

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 06-30-1999

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865 - Primary SIC

a. **An entire facility:** YES

b. **Part of a facility:** NO

c. **A Federal Facility:** NO

PART II:

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 8001589

1.2. Toxic Chemical or Chemical Category Name: CREOSOTE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity:

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 03 Range from 1,000 To 9,999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	NA	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA 6.1.A.2 Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD981552177
Off-Site Location Name: SAFETY-KLEEN, ARAGONITE
Off-site Address: 11600 NORTH APTUS ROAD
City: ARAGONITE State: UT County: TDDELE Country: Zip: 84029
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	168	C-MASS BALANCE CALCULATIONS	M50-Incineration/Thermal Treatment

7A On-Site Waste Treatment Methods & Efficiency waste_seq

7A.1 a. General Waste Stream: NA
c. Range of Influent Concentration:
d. Waste Treatment Efficiency Estimate(%):
e. Based on Operating Data:
b. Waste Treatment Method Sequence:

7B On-site Energy Recovery Processes

1. NA

7C On-site Recycling Processes

1. NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	230	0	0	0
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	NA	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	25000	NA	0	0
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	170	110	140
8.8	Quntity Released as a Result of Remedial, Catastrophic, or One Time Events	0			
8.9	Production Ratio or Activity Index	1.24			

8.10 Source Reduction Activities: Method A Method B Method C

8.10.1 NA

For Internal Use Only			
TRI Facility ID No	97210KPPRS7540N	Reporting Year	1999
Chemical Name	CREOSOTE		
Document Control Number	13-99-130-39463-2	Post Mark Date	06-30-2000
File Number	DD-00-00011608-3	Received Date	07-03-2000

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PARAGRAPH:

ERROR: No errors were identified in this submission

YOUR CORRECTION:

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Amos S. Kamerer
Plant Manager

Telephone: 503-286-3681
Fax: 503-285-2831

The EPCRA Reporting Center
Attn: Facility Data Profile Response
P. O. Box 3348
Merrifield, Va. 22116-3348

January 12, 2000

Reference: TRI Facility Data

Mr. David Weidner,

Enclosed are the corrections that we discussed yesterday.

Thank you again for your understanding regarding the delay in getting this response back to your office.

Sincerely,

Amos S. Kamerer

CC: Mr. Bob Alers
Oregon Emergency Response Commission
Office of State Fire Marshall
4760 Portland Road, Northeast
Salem, Oregon 97305-1760

Date: 1/12/00 10:40 AM
Sender: "Weidner.David" <Weidner.David@EPCRA.org>
To: Amos Kamerer
Priority: Normal
Subject: Response - Facility Data Profile Koppers Inds. Inc. (97210-K

Amos,

The corrections were mostly to the off-site location data. If we indicated
that there were validation errors, simply mark up the affected "Errors
Identifed in This Report" page(s) with the changes. Make sure that there is
sufficient information on the page so that we know which chemical report
needs to be modified. Also, it would probably be useful to copy and attach
the "Facility Information" page so that the analyst here will be able to
immediately and precisely identify your facility. If you find errors that
we injected during data capture in any of the "Chemical Reports for This
Facility or Establishment" sections (i.e, the chemical report facsimiles),
line through our value and annotate the page with the corrected value.

Basically, its a matter of minimizing copying so that the burden is least
for you; give us enough information about the specific report and your
facility so that we don't make a mistake during transcription. Once we make
these changes, in theory, your data are updated in the TRI database, flags
are set to indicate a change was made, and the affected records are eligible
for a new Facility Data Profile mailout. With hope, all records included in
the next notice will be perfect and you get the satisfaction of seeing that
these changes were effected. And then you file the copy. I don't know what
Oregon's interest is, but you might think about sending a copy of the same
response to keep them in synch.

Let me know if there is anything else we can help with - now or later.

> ----------
> From: amos_kamerer@koppers.com
> Sent: Tuesday, January 11, 2000 4:39 PM
> To: Weidner.david@epcra.org
> Subject: TRI Errors - ID # 97210kpprs7540n
>
>
> David Weidner,
>
> Thank you again for your help earlier today, however, I have

another
> question.
> Simply, do I only need
> to send back the pages of the report that are corrected; or
do you want
> the
> entire report returned?
>
> Thanks,
>
> Amos Kamerer
>
>

RFC822.TXT

FileItem.txt

11/11/00

David Kleidner, Operations Mgr
kleidner@david@EPCRA.ORG
- can't make change at this time

National Data Release of Info.
late Feb/early March

No
- Critical errors, no big deal.
No cover letter needed

Also need to
Advise the state
of these connections

Anthracene	UT
Naphthalene	UT, BC
PAC's	UT
Creosote	BC
Dibenzofuran	BC

Mark Questions

1) is the above correct
2) 1997 data came with this

As well

- First time I have ever seen this
- explain when I call

Date: 1/11/00 4:39 PM
Sender: Amos Kamerer
To: Weidner.david@epcra.org
Priority: Normal
Receipt requested
Subject: TRI Errors - ID # 97210kpprs7540n

David Weidner,

Thank you again for your help earlier today, however, I have another question. Simply, do I only need
to send back the pages of the report that are corrected; or do you want the entire report returned?

Thanks,

Amos Kamerer

Yes, entire document, through the cover section

97210KPPRS7540N
TOXIC RELEASE INVENTORY TECHNICAL CONTACT
KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, OR 97210-3663

cc: T. Self, K-1800
M. Cilley, Stroock

RECEIVED

OCT 29 1999

KOPPERS INDS, INC.
PORTLAND OR

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U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PREVENTION, PESTICIDES, AND TOXIC SUBSTANCES
OFFICE OF POLLUTION PREVENTION AND TOXICS
INFORMATION MANAGEMENT DIVISION
WASHINGTON, D.C. 20460

97210KPPRS7540N
TOXIC RELEASE INVENTORY TECHNICAL CONTACT
KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND,OR 97210-3663

TOXICS RELEASE INVENTORY
FACILITY DATA PROFILE

This notice provides information recently reported by you in your Form R or Form A reports that we have entered into the Toxic Release Inventory database.

The EPA wishes to accurately represent the data reported by your facility. We believe our data capture process is of high quality, however, as a final quality measure, please verify the data presented in this notice against your own Form R or Form A records. This notice serves two purposes. First, we want to give you the opportunity to confirm that we have entered your data correctly and, if we have not, to advise us so we are able to make corrections. Secondly, if we indicate that we have detected potential errors in the reports you have provided, we indicate what these errors are and request that you provide us with corrections.

If the data presented here do not match those on the form you submitted, or if we advise you of errors that we have detected in your forms, **please respond within 14 days of receipt of this notice.**

If we advise you that we have detected errors in the data you submitted, it is essential that you respond with corrections to these errors. **Depending on the severity of the error, failure to correct errors could result in the issuance of a compliance violation notice or, at minimum, if the value(s) does not meet reporting standards, we will represent this as "invalid".**

This notice is comprised of the following sections:

For Your Information - News and general information from the EPA pertinent to the Toxic Release Inventory data collection effort.

Facility Information (Primary Facility) - This section displays all facility specific data that you provided, inclusive of TRI Facility Identification, facility name, facility address, facility mailing address, relevant permits (e.g., RCRA, NPDES, and UIC), Standard Industrial Classification code (SIC), and other facility data.

Facility Information (Establishment) - If you have reported as a multi-establishment facility, we are providing these subordinate facility data. This information includes the subordinate facility name, mailing address, facility specific data, technical contact name, public contact name, and permit information.

Chemical Reports for this Facility or Establishment - All Form R or Form A submission data (i.e., chemical specific data) are displayed here. The chemical name, generic chemical name, or mixture component identity name, release/transfer/Pollution Prevention Act data, and other chemical specific data appear under the appropriate facility or subordinate facility names so you can verify that these chemical reports were entered correctly and that they are associated with the correct reporting facility or facility part. This section is provided so you can write in corrections to any errors we have made during data capture. The purpose of this display is to correct data; do not revise data in this section.

Updates to Facility or Chemical Data Since the Last Facility Data Profile Notification - This section may follow facility data and/or each chemical section. We indicate those data changes that you directed us to make or changes we made to Facility or Chemical Data as a result of ongoing data quality reviews since we sent your last Facility Data Profile notice to you. To assist you in identifying and verifying these data changes, we have specified the form section where these changes were made and provided the new value. If this section contains no information it is because we have made no changes to data.

Errors Identified in this Report/Automated TRI Reporting Software (ATRS) Status Validation Messages - In this section we specify errors that we found in your data or problems we encountered when we processed your magnetic media diskette. These error messages, if you are affected, appear after the facility data or after each chemical information section. Every error message is accompanied by applicable guidance on how you can correct the error. For example, in the "Chemical Reports for this Facility or Establishment" section, all captured form field values will be displayed for each form field. If you provided potentially erroneous data (e.g., invalid SIC code, invalid latitude/longitude value, an invalid CAS number, a misspelled chemical name, an invalid form version, an incomplete form, etc.), the report field value displayed indicates that it is invalid. Following this section, in the validation error messages, the actual submitted value is displayed. The part and section enumeration is provided so you can map the value to the form section in which it occurred; magnetic media submitters are provided with information regarding ATRS or other party software diskette failures (unreadable, missing files, incorrect file linkages, etc.). Please enter your correction here or attach replacement report pages. If we indicate a disk failure or other unrecoverable error, please replace the disk with a new disk containing data that can be processed.

Summary - This section lists information about the chemical(s) submitted by your facility to the EPA for a given reporting year at the time that this notice was generated and the status of these reports. In this summary we indicate the chemical name(s), CAS number(s), and compliance dates (i.e., postmark dates, and date received at the Reporting Center).

We observe certain conventions in the way that your facility or chemical report data are represented. We use standard abbreviations for certain words (e.g., Corp for Corporation, Hwy for Highway, etc.). On-site releases, off-site transfers, and other waste stream quantities are entered to the nearest pound; thus amounts less than 0.5 will appear as zero. Please correct this type of information only if the actual data are incorrect.

This report only lists those Form R or Form A reports which have completed our internal data quality checks. If any reports or revisions submitted by your facility are not listed, you will be receiving additional correspondence from us.

If you need to respond to this notice, follow these instructions **within 14 days of receipt**:

On the attached Errors report, please write the correct value in the space provided and send this page(s) to the EPCRA Reporting Center. If you detect an error in the Facility or Chemical sections, mark through the erroneous value and write the correct value next to it or attach replacement report pages if necessary. In case of diskette errors, enclose a replacement diskette.

Form R/A replacement pages or replacement diskettes must be accompanied by the Facility Data Profile notice.

Return your corrections to:

THE EPCRA REPORTING CENTER
ATTN: FACILITY DATA PROFILE RESPONSE
P.O. BOX 3348
MERRIFIELD, VA 22116-3348

If data corrections are in order, send a copy of this notice with your corrections to the same State organization to which you sent a copy of your original submission; EPA recommends that Government-Owned-Contractor-Operated (GOCO) facilities send copies of their corrections to their associated Federal facilities.

If you do not find any errors and if we do not indicate that we have identified problems with your data in the notice, no further action on your part is required.

If your original submission contains other information you now believe to be incorrect, please submit a complete, revised submission with the corrected information. Follow the voluntary revision guidelines found in the Toxic Chemical Release Inventory Reporting Forms and Instructions (Revised 1998 Version) booklet.

If you have any questions concerning this notice, please call the Emergency Planning and Community Right-to-Know Hotline at:

1-800-535-0202 (toll free outside the D.C. Metro area)
1-800-553-7672 (TDD Number, toll free outside the D.C. Metro area)
(703) 412- 9877 (D.C. Metro and Northern Virginia area)

or the EPCRA Reporting Center (ask for TRI Mailouts) at:

(703) 816-4434 (EPCRA Reporting Center User Support)

Thank you for your cooperation in this matter.

Sincerely,

/S/ *Tim Crawford*, Acting Chief
Toxic Release Inventory Information Management Branch (7407)

For Your Information -- News and General Information from the U.S. Environmental Protection Agency

Preprinted Latitude/Longitude
This year a problem was encountered with generating the latitudes and longitudes for the preprinted page one that you may have used in developing your TRI submission. In an attempt to correct this, those cases where the latitude and longitude may have been affected were replaced with the values retained for the prior year. If you used the preprinted page one or the information provided on the preprinted page one when preparing your submission, please make special note of the latitude and longitude we have for your facility.

Additionally, if you submitted a report for reporting years 1995 and 1996, the latitude and longitude values currently in the TRI database for your facility may not be the ones generated by your facility, but may have been generated by EPA and substituted on the preprinted page one for RY 1996 . If these conditions apply to your facility, please make special note of these values and submit a change to reflect the latitude and longitude values generated for your facility on the attached Facility Data Profile.

Revision Policy
EPA has revised the period during which the Agency will accept voluntary revisions to Form R and Form A submissions each year for inclusion in the annual data release for that year. Facilities must now submit voluntary revisions to their Form R and Form A submissions to EPA within 30 days of the reporting deadline each year to be included in that year's public data release. The statutory annual reporting deadline is July 1. Therefore, revisions received after July 31 of each year will not be included in the annual release of the TRI data for that year. EPA will, however, continue to accept these revisions for inclusion in the TRI database. The amended revision policy is effective April 26, 1999 (Federal Register Policy Statement, April 26, 1999, Volume 64, No. 79, pages 20198 - 20200).

New Reporters
Covered facilities in the following industry groups will be required to submit TRI reports for the first time: coal mining, metal mining, electricity generation (limited to facilities that combust coal and/or oil), hazardous waste treatment and disposal, petroleum bulk plants and terminals, chemical wholesale, and solvent recycling. These industry sectors were added in a final rule published on May 1, 1997 (62 FR 23834).

How to Respond to a Facility Data Profile
If we indicate in the Errors Identified in this Report section of this notification that you have provided invalid data, please provide corrections in the following manner:

- Correct the error in the space provided in the Errors Identified in this Report section itself
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to enter

If we inform you of a disk processing error, please provide a new disk.

All responses, whether a marked copy of this notice, replacement pages or disks, must include the Errors Identified in this Report section and be sent to Attention: Facility Data Profile Response. Do Not Use this Notice For Data Revision Purposes. Send your response to the EPCRA Reporting Center address (indicated in the cover letter) within 14 days of receipt of this notice for timely processing.

FACILITY INFORMATION:

TRI Facility Identification No: 97210KPPRS7540N

Internal Use - Facility ID: 39512

Primary Facility Name and Address:

KOPPERS INDS. INC. PORTLAND TAR PLANT
7540 N.W. ST. HELENS RD.
PORTLAND, COUNTY:MULTNOMAH OR 97210-3663

Mailing Address:

NA

Technical Contact Name: MR. AMOS KAMERER

Telephone No: 503-286-3681

Public Contact Name: MR. AMOS KAMERER

Telephone No: 503-286-3681

Latitude: 045-34-52

Longitude: 122-45-28

Facility Type (Federal/GOCO/Commercial): COMMERCIAL

Name of Parent Company: KOPPERS INDS. INC.

Parent Company Dun & Bradstreet No: 196991582

SIC Code	Facility Dun & Bradstreet No	EPCRA (RCRA No.)	Facility NPDES No	Underground Injection Well Code(s):
2865	027734359	ORD027734359		NA
NA	NA	NA	NA	

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

For Internal Use			
Document Control Number	13-98-120-17642-5	Post Mark Date	1999-06-29
File Number	DD-99-00006147-7	Received (EPCRARC) Date	1999-07-02

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 1999-06-30

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 120127

1.2. Toxic Chemical or Chemical Category Name: ANTHRACENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For Sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05

Range from 100000 To 999999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	2	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	203	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD991301748
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: EXIT 11 OFF I-80
City: KNOLLS State: UT County: Country: Zip: 84029 Add: TOOELE
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	4	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1a A. General Waste Stream: NA
C. Range of Influent Concentration:
D. Waste Treatment Efficiency Estimate(%):
E. Based on Operating Data:
B. Waste Treatment Method Sequence:

7B On-Site Energy Recovery Processes

1. NA

7C On-Site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

8.0	**Source Reduction & Recycling Activities**	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	75	210	260	260
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	12000	370	470	470
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities Method A Method B Method C

8.10.1 NA

For Internal Use	
Document Control Number	13-98-120-17642-5
Formr ID	1120799

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

Do not use this notice for data revision purposes.

In order to be processed in a timely fashion, **all responses, whether a marked copy of this notice, replacement pages or disks, must include this section** and be sent to address below within 14 days of receipt of this notice:

THE EPCRA REPORTING CENTER
ATTN: FACILITY DATA PROFILE RESPONSE
P.O. BOX 3348
MERRIFIELD, VA 22116-3348

PARAGRAPH: II.6.2.1 TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and/or address data. Correct this by providing the off-site name and the complete address for the location.

YOUR CORRECTION: Added; Tooele, County

For Internal Use	
Document Control Number	
Formr ID	

MAGNETIC MEDIA ERRORS IDENTIFIED IN THIS REPORT

No Errors Found

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

For Internal Use			
Document Control Number	13-98-120-17643-7	Post Mark Date	1999-06-29
File Number	DD-99-00006147-7	Received (EPCRARC) Date	1999-07-02

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER
Date Signed: 1999-06-30

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865
a. An entire facility: YES
b. Part of a facility: NO
c. A Federal Facility: NO

PART II

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 91203

1.2. Toxic Chemical or Chemical Category Name: NAPHTHALENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:
A. Produce: YES
B. Import: NO

If Produce or Import:
C. For on-site use/processing: NO
D. For Sale/distribution: NO
E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:
A. As a reactant: NO
B. As a formulation component: NO
C. As an article component: YES
D. Repackaging: NO

3.3. Otherwise use the toxic chemical:
A. As a chemical processing aid: NO
B. As a manufacture aid: NO
C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05
Range from 100000 To 999999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	3	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	22096	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2 LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3 SURFACE IMPOUNDMENT	NA	
5.5.4 OTHER DISPOSAL	NA	
5.4.1 UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2 UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD9913D1748
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: EXIT 11 OFF I-80
City: KNOLLS State: UT County: Country: Zip: 84029 Add: Tooele
Location under control of reporting facility or parent company: ND

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	1	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

6.2.2 Off-Site EPA Identification Number (EPCRA ID No.) PS8388
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: 7842 PROGRESS WAY
City: DELTA, ~~BRITISH COLUMBIA~~ State: County: CA Country: Canada Zip:
Location under control of reporting facility or parent company: ND

city : Delta
Province : British Columbia
zip : V4G1A4
correct to the Above

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	51	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1a A. General Waste Stream: NA
C. Range of Influent Concentration:
D. Waste Treatment Efficiency Estimate(%):
E. Based on Operating Data:
B. Waste Treatment Method Sequence:

7B On-Site Energy Recovery Processes

1. NA

7C On-Site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	1700	22000	28000	28000
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	12000	6300	7900	7900
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities Method A Method B Method C

8.10.1 NA

For Internal Use	
Document Control Number	13-98-120-17643-7
Formr ID	1120800

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
- If we inform you of a disk processing error, please provide a new disk.

Do not use this notice for data revision purposes.

In order to be processed in a timely fashion, **all responses, whether a marked copy of this notice, replacement pages or disks, must include this section** and be sent to address below within 14 days of receipt of this notice:

THE EPCRA REPORTING CENTER
ATTN: FACILITY DATA PROFILE RESPONSE
P.O. BOX 3348
MERRIFIELD, VA 22116-3348

PARAGRAPH: II.6.2.1 TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and/or address data. Correct this by providing the off-site name and the complete address for the location.

YOUR CORRECTION:
Added County: Tooele

PARAGRAPH: II.6.2.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and/or address data. Correct this by providing the off-site name and the complete address for the location.

YOUR CORRECTION:
Corrected: City: Delta, Province: British Columbia, Country: Canada, Zip: V4G1A4

ERROR: You provided both county and country data. If this is an extra-national transfer, indicate the off-site name, address, and Country Code; if a domestic Offsite, provide the Off-site Name and correct Address.

YOUR CORRECTION:
Corrected: City: Delta, Province: British Columbia, Country: Canada, Zip: V4G1A4

For Internal Use	
Document Control Number	
Formr ID	

MAGNETIC MEDIA ERRORS IDENTIFIED IN THIS REPORT

No Errors Found

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

For Internal Use			
Document Control Number	13-98-120-17644-9	Post Mark Date	1999-06-29
File Number	DD-99-00006147-7	Received (EPCRARC) Date	1999-07-02

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 1999-06-30

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: N590

1.2. Toxic Chemical or Chemical Category Name: POLYCYCLIC AROMATIC COMPOUNDS

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: NO

If Produce or Import:

C. For on-site use/processing: NO

D. For Sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05

Range from 100000 To 999999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	14	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	1764	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 ST. HELENS ROAD CREEK	20	M-DATA MONITORING OR MEASUREMENTS	100.00

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) UTD991301748
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: EXIT 11 OFF I-80
City: KNOLLS State: UT County: Country: Zip: 84029 Add county! TOOELE
Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	16	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1a A. General Waste Stream: NA
C. Range of Influent Concentration:
D. Waste Treatment Efficiency Estimate(%):
E. Based on Operating Data:
B. Waste Treatment Method Sequence:

7B On-Site Energy Recovery Processes

1. NA

7C On-Site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	250	1800	2300	2300
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	71000	53000	66000	66000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	2	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities Method A Method B Method C

8.10.1 NA

For Internal Use	
Document Control Number	13-98-120-17644-9
Formr ID	1120801

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ATTN: FACILITY DATA PROFILE RESPONSE
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MERRIFIELD, VA 22116-3348

PARAGRAPH: II.6.2.1 TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and/or address data. Correct this by providing the off-site name and the complete address for the location.

YOUR CORRECTION:

Added County ! TOOELE

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MAGNETIC MEDIA ERRORS IDENTIFIED IN THIS REPORT

No Errors Found

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

For Internal Use			
Document Control Number	13-98-120-17645-2	Post Mark Date	1999-06-29
File Number	DD-99-00006147-7	Received (EPCRARC) Date	1999-07-02

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER
Date Signed: 1999-06-30

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865
a. An entire facility: YES
b. Part of a facility: NO
c. A Federal Facility: NO

PART II

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 8001589

1.2. Toxic Chemical or Chemical Category Name: CREOSOTE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:
A. Produce: YES
B. Import: NO

If Produce or Import:
C. For on-site use/processing: NO
D. For Sale/distribution: NO
E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:
A. As a reactant: NO
B. As a formulation component: NO
C. As an article component: YES
D. Repackaging: NO

3.3. Otherwise use the toxic chemical:
A. As a chemical processing aid: NO
B. As a manufacture aid: NO
C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05
Range from 100000 To 999999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	11	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	16	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations

6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA

POTW Address:

City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) PS8388

Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES

Off-site Address: 7842 PROGRESS WAY

City: DELTA, ~~BRITISH COLUMBIA~~ State: County: CA Country: Canada Zip:

city : DELTA
PROVINCE : British Columbia
Country : CANADA
Zip : V4G1A4
CORRECT TO the Above

Location under control of reporting facility or parent company: NO

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	206	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1a A. General Waste Stream: NA

C. Range of Influent Concentration:

D. Waste Treatment Efficiency Estimate(%):

E. Based on Operating Data:

B. Waste Treatment Method Sequence:

7B On-Site Energy Recovery Processes

1. NA

7C On-Site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	0	230	290	290
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	0	25000	32000	32000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities Method A Method B Method C

8.10.1 NA

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Formr ID	1120802

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P.O. BOX 3348
MERRIFIELD, VA 22116-3348

PARAGRAPH: II.6.2.1 TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and/or address data. Correct this by providing the off-site name and the complete address for the location.

YOUR CORRECTION:

Corrected: City: DELTA, Province: British Columbia, country: CANADA, zip: V4G1A4

ERROR: You provided both county and country data. If this is an extra-national transfer, indicate the off-site name, address, and Country Code; if a domestic Offsite, provide the Off-site Name and correct Address.

YOUR CORRECTION:

Corrected: City: DELTA, Province: British Columbia, country: CANADA, zip: V4G1A4

For Internal Use	
Document Control Number	
Formr ID	

MAGNETIC MEDIA ERRORS IDENTIFIED IN THIS REPORT

No Errors Found

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

For Internal Use			
Document Control Number	13-98-120-17646-4	Post Mark Date	1999-06-29
File Number	DD-99-00006147-7	Received (EPCRARC) Date	1999-07-02

PART I:

1.0 Reporting Year: 1998

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER
Date Signed: 1999-06-30

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865
a. An entire facility: YES
b. Part of a facility: NO
c. A Federal Facility: NO

PART II

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 132649

1.2. Toxic Chemical or Chemical Category Name: DIBENZOFURAN

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:
A. Produce: YES
B. Import: NO

If Produce or Import:
C. For on-site use/processing: NO
D. For Sale/distribution: NO
E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:
A. As a reactant: NO
B. As a formulation component: NO
C. As an article component: YES
D. Repackaging: NO

3.3. Otherwise use the toxic chemical:
A. As a chemical processing aid: NO
B. As a manufacture aid: NO
C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 04
Range from 10000 To 99999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	NA	
5.2 STACK OR POINT AIR EMISSIONS	2741	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations

6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) PS8388
Off-Site Location Name: LAIDLAW ENVIRONMENTAL SERVICES
Off-site Address: 7842 PROGRESS WAY
City: DELTA, BRITISH COLUMBIA State: County: CA Country: Canada Zip:

city : DELTA
Province : British Columbia
country : CANADA
zip : V4G1A4
correct to the above —

Location under control of reporting facility or parent company: ND

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	3	C-MASS BALANCE CALCULATIONS	M72-Landfill/Disposal Surface Impoundment

7A On-Site Waste Treatment Methods & Efficiency

7A.1a A. General Waste Stream: NA
C. Range of Influent Concentration:
D. Waste Treatment Efficiency Estimate(%):
E. Based on Operating Data:
B. Waste Treatment Method Sequence:

7B On-Site Energy Recovery Processes

1. NA

7C On-Site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

8.0	Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	0	2700	3500	3500
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	0	350	440	440
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.47			

8.10 Source Reduction Activities Method A Method B Method C

8.10.1 NA

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Document Control Number	13-98-120-17646-4
Formr ID	1120803

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PARAGRAPH: II.6.2.1 TRANSFERS TO OTHER OFF-SITE LOCATIONS.

ERROR: You provided incomplete off-site name and/or address data. Correct this by providing the off-site name and the complete address for the location.

YOUR CORRECTION:

CORRECTED: CITY: DELTA, PROVINCE: BRITISH COLUMBIA, COUNTRY: CANADA, ZIP: V4G 1A4

ERROR: You provided both county and country data. If this is an extra-national transfer, indicate the off-site name, address, and Country Code; if a domestic Offsite, provide the Off-site Name and correct Address.

YOUR CORRECTION:

CORRECTED: CITY: DELTA, PROVINCE: BRITISH COLUMBIA, COUNTRY: CANADA, ZIP: V4G 1A4

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Document Control Number	
Formr ID	

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No Errors Found

No other Errors beyond this section!

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

For Internal Use			
Document Control Number	13-97-110-48768-7	Post Mark Date	1999-07-19
File Number	DD-99-00016314-3	Received (EPCRARC) Date	1999-07-23

PART I:

1.0 Reporting Year: 1997

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER
Date Signed: 1999-07-30

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865
a. An entire facility: YES
b. Part of a facility: NO
c. A Federal Facility: NO

PART II

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 120127

1.2. Toxic Chemical or Chemical Category Name: ANTHRACENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:
A. Produce: YES
B. Import: NO

If Produce or Import:
C. For on-site use/processing: NO
D. For Sale/distribution: NO
E. As a byproduct: NO
F. As an Impurity: YES

3.2. Process the toxic chemical:
A. As a reactant: NO
B. As a formulation component: NO
C. As an article component: YES
D. Repackaging: NO

3.3. Otherwise use the toxic chemical:
A. As a chemical processing aid: NO
B. As a manufacture aid: NO
C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 04
Range from 10000 To 99999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	2	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIDNS	49	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

	Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2	LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3	SURFACE IMPOUNDMENT	NA	
5.5.4	OTHER DISPOSAL	NA	
5.4.1	UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2	UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A	RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B	OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) NA
Off-Site Location Name: NA
Off-site Address:
City: State: County: Country: Zip:
Location under control of reporting facility or parent company:

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	NA		

7A On-Site Waste Treatment Methods & Efficiency

7A.1a A. General Waste Stream: NA
C. Range of Influent Concentration:
D. Waste Treatment Efficiency Estimate(%):
E. Based on Operating Data:
B. Waste Treatment Method Sequence:

7B On-Site Energy Recovery Processes

1. NA

7C On-Site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

	8.0 Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1	QUANTITY RELEASED	0	52	52	52
8.2	QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3	QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4	QUANTITY RECYCLED ON-SITE	0	12000	12000	12000
8.5	QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6	QUANTITY TREATED ON-SITE	0	0	0	0
8.7	QUANTITY TREATED OFF-SITE	0	0	0	0
8.8	QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9	PRODUCTION RATIO OR ACTIVITY INDEX	1.00			

8.10 Source Reduction Activities Method A Method B Method C

8.10.1 NA

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Document Control Number	13-97-110-48768-7
Formr ID	1186041

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P.O. BOX 3348
MERRIFIELD, VA 22116-3348

PARAGRAPH:

ERROR: No errors were identified in this submission.

YOUR CORRECTION:

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Document Control Number	
Formr ID	

MAGNETIC MEDIA ERRORS IDENTIFIED IN THIS REPORT

No Errors Found

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT

For Internal Use			
Document Control Number	13-97-111-07061-9	Post Mark Date	1999-07-19
File Number	DD-99-00016314-3	Received (EPCRA:RC) Date	1999-07-23

PART I:

1.0 Reporting Year: 1997
2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO
3.0 Certification: **Official Name:** MR. AMOS KAMERER
Title: PLANT MANAGER **Date Signed:** 1998-06-30

PART II:

1. TOXIC CHEMICAL IDENTITY

1.1 CAS Number or Chemical Category Code: 92524
1.2 Toxic Chemical or Chemical Category Name: BIPHENYL
1.3 Generic Chemical Name: NA

2. MIXTURE COMPONENT IDENTITY:

2.1 Generic Chemical Name Provided by Supplier: NA

For Internal Use	
Document Control Number	13-97-111-07061-9
Formr ID	1186042

ERRORS IDENTIFIED IN THIS REPORT

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ATTN: FACILITY DATA PROFILE RESPONSE
P.O. BOX 3348
MERRIFIELD, VA 22116-3348

PARAGRAPH:

ERROR: No errors were identified in this submission.
YOUR CORRECTION:

For Internal Use	
Document Control Number	
Formr ID	

MAGNETIC MEDIA ERRORS IDENTIFIED IN THIS REPORT

No Errors Found

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT

For Internal Use			
Document Control Number	13-97-111-07062-1	Post Mark Date	1999-07-19
File Number	DD-99-00016314-3	Received (EPCRARC) Date	1999-07-23

PART I:

1.0 Reporting Year: 1997
2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO
3.0 Certification: **Official Name:** MR. AMOS KAMERER
Title: PLANT MANAGER **Date Signed:** 1998-06-30

PART II:

1. TOXIC CHEMICAL IDENTITY

1.1 CAS Number or Chemical Category Code: 132649
1.2 Toxic Chemical or Chemical Category Name: DIBENZOFURAN
1.3 Generic Chemical Name: NA

2. MIXTURE COMPONENT IDENTITY:

2.1 Generic Chemical Name Provided by Supplier: NA

For Internal Use	
Document Control Number	13-97-111-07062-1
Formr ID	1186043

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

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THE EPCRA REPORTING CENTER
ATTN: FACILITY DATA PROFILE RESPONSE
P.O. BOX 3348
MERRIFIELD, VA 22116-3348

PARAGRAPH:

ERROR: No errors were identified in this submission.

YOUR CORRECTION:

For Internal Use	
Document Control Number	
Formr ID	

MAGNETIC MEDIA ERRORS IDENTIFIED IN THIS REPORT

No Errors Found

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT:

For Internal Use			
Document Control Number	13-97-110-48769-9	Post Mark Date	1999-07-19
File Number	DD-99-00016314-3	Received (EPCRARC) Date	1999-07-23

PART I:

1.0 Reporting Year: 1997

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER **Title:** PLANT MANAGER

Date Signed: 1999-07-30

4.2 This Report Contains Information for: **4.5 SIC Code(s):** 2865

a. An entire facility: YES

b. Part of a facility: NO

c. A Federal Facility: NO

PART II

1.0. Toxic Chemical Identity:

1.1. CAS Number or Chemical Category Code: 91203

1.2. Toxic Chemical or Chemical Category Name: NAPHTHALENE

1.3. Generic Chemical Name: NA

2.0. Mixture Component Identity

2.1. Generic Chemical Name Provided By Supplier: NA

3.0 Activities and Uses of the Toxic Chemical at the Facility:

3.1 Manufacture the toxic chemical:

A. Produce: YES

B. Import: ND

If Produce or Import:

C. For on-site use/processing: NO

D. For Sale/distribution: NO

E. As a byproduct: NO

F. As an Impurity: YES

3.2. Process the toxic chemical:

A. As a reactant: NO

B. As a formulation component: NO

C. As an article component: YES

D. Repackaging: NO

3.3. Otherwise use the toxic chemical:

A. As a chemical processing aid: NO

B. As a manufacture aid: NO

C. Ancillary or other use: NO

4.1. Maximum Amount of the Toxic Chemical On-Site at any Time During the Year: 05

Range from 100000 To 999999 (lb)

5.0 Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

Air Emissions	A. Total Release	B. Basis of Estimate
5.1 FUGITIVE OR NON-POINT AIR EMISSIONS	3	E-PUBLISHED EMISSION FACTORS
5.2 STACK OR POINT AIR EMISSIONS	1735	E-PUBLISHED EMISSION FACTORS

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name:	A. Total Release	B. Basis of Estimate	C. % from Stormwater
5.3.1 NA			0.00

Underground Injection/Land Disposal	A. Total Release	B. Basis of Estimate
5.5.2 LAND TREATMENT / APPLICATION FARMING	NA	
5.5.3 SURFACE IMPOUNDMENT	NA	
5.5.4 OTHER DISPOSAL	NA	
5.4.1 UNDERGROUND INJECTION ON-SITE TO CLASS I WELLS	NA	
5.4.2 UNDERGROUND INJECTION ON-SITE TO CLASS II-V WELLS	NA	
5.5.1A RCRA SUBTITLE C LANDFILLS	NA	
5.5.1B OTHER LANDFILLS	NA	

6.0 Transfers of the Toxic Chemical in Waste to Off-site Locations
6.1 Discharges to Publicly Owned Treatment Works (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1 Total Transfers: NA **6.1.A.2** Basis of Estimate:

6.1.B.1 POTW NAME: NA
POTW Address:
City: County: State: Zip:

6.2 Transfers to Other Off-site Locations

6.2.1 Off-Site EPA Identification Number (EPCRA ID No.) NA
Off-Site Location Name: NA
Off-site Address:
City: State: County: Country: Zip:
Location under control of reporting facility or parent company:

	Total Transfers	Basis of Estimate	Type of Waste Treatment/Disposal/ Recycling/Energy Recovery
1	NA		

7A On-Site Waste Treatment Methods & Efficiency

7A.1a A. General Waste Stream: NA
C. Range of Influent Concentration:
D. Waste Treatment Efficiency Estimate(%):
E. Based on Operating Data:
B. Waste Treatment Method Sequence:

7B On-Site Energy Recovery Processes

1. NA

7C On-Site Recycling Processes

1. R14-SOLVENTS/ORGANICS RECOVERY - SOLVENT EXTRACTION

8.0 Source Reduction & Recycling Activities	Col. A Prior Year	Col. B Current Year	Col. C Following Year	Col. D Second Following Year
8.1 QUANTITY RELEASED	0	1700	1700	1700
8.2 QUANTITY USED FOR ENERGY RECOVERY ON-SITE	0	0	0	0
8.3 QUANTITY USED FOR ENERGY RECOVERY OFF-SITE	0	0	0	0
8.4 QUANTITY RECYCLED ON-SITE	0	12000	12000	12000
8.5 QUANTITY RECYCLED OFF-SITE	0	0	0	0
8.6 QUANTITY TREATED ON-SITE	0	0	0	0
8.7 QUANTITY TREATED OFF-SITE	0	0	0	0
8.8 QUANTITY RELEASED AS A RESULT OF REMEDIAL, CATASTROPHIC, OR ONE TIME EVENTS	0			
8.9 PRODUCTION RATIO OR ACTIVITY INDEX	1.00			

8.10 Source Reduction Activities Method A Method B Method C

8.10.1 NA

For Internal Use	
Document Control Number	13-97-110-48769-9
Formr ID	1186044

ERRORS IDENTIFIED IN THIS REPORT

If we indicate in this section that you have provided invalid data, or if you discover that we omitted or inaccurately altered your submitted data please provide corrections in the following manner:

- Correct the error in the space provided in this section
- Mark through the erroneous value in the Facility Information or Chemical Report section and write the correct value next to it
- Attach replacement (Form R/A) pages and any explanatory remarks that might aid us in correcting data for those values we have failed to capture correctly
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Do not use this notice for data revision purposes.

In order to be processed in a timely fashion, **all responses, whether a marked copy of this notice, replacement pages or disks, must include this section** and be sent to address below within 14 days of receipt of this notice:

THE EPCRA REPORTING CENTER
ATTN: FACILITY DATA PROFILE RESPONSE
P.O. BOX 3348
MERRIFIELD, VA 22116-3348

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MAGNETIC MEDIA ERRORS IDENTIFIED IN THIS REPORT

No Errors Found

CHEMICAL REPORTS FOR THIS FACILITY OR ESTABLISHMENT

For Internal Use			
Document Control Number	13-97-111-07063-3	Post Mark Date	1999-07-19
File Number	DD-99-00016314-3	Received (EPCRARC) Date	1999-07-23

PART I:

1.0 Reporting Year: 1997

2.0 Trade Secret Information: **2.1 Trade Secret:** NO **2.2 Sanitized:** NO

3.0 Certification: **Official Name:** MR. AMOS KAMERER
Title: PLANT MANAGER **Date Signed:** 1999-07-30

PART II:

1. TOXIC CHEMICAL IDENTITY

1.1 CAS Number or Chemical Category Code: 8001589
1.2 Toxic Chemical or Chemical Category Name: CREOSOTE
1.3 Generic Chemical Name: NA

2. MIXTURE COMPONENT IDENTITY:

2.1 Generic Chemical Name Provided by Supplier: NA

For Internal Use	
Document Control Number	13-97-111-07063-3
Formr ID	1186046

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PARAGRAPH:

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YOUR CORRECTION:

For Internal Use	
Document Control Number	
Formr ID	

MAGNETIC MEDIA ERRORS IDENTIFIED IN THIS REPORT

No Errors Found

Toxics Release Inventory Chemical Report Summary:

File Number	Document Control Number	CAS No./ Category Code	Chemical/Generic/Mixture Name	Original Post Mark Date	Post Mark Date	Received Date
Reporting Year: 1997						
	13-97-111-03344-5	92524	BIPHENYL	1998-07-01	1998-07-01	1998-07-01
	13-97-111-03345-8	132649	DIBENZOFURAN	1998-07-01	1998-07-01	1998-07-01
	13-97-110-19516-9	120127	ANTHRACENE	1998-07-01	1998-07-01	1998-07-01
DD-99-00016314-3	13-97-110-48768-7	120127	ANTHRACENE	1998-07-01	1999-07-19	1999-07-23
	13-97-110-19517-1	91203	NAPHTHALENE	1998-07-01	1998-07-01	1998-07-01
	13-97-110-19518-3	N590	POLYCYCLIC AROMATIC COMPOUNDS	1998-07-01	1998-07-01	1998-07-01
DD-99-00016314-3	13-97-111-07061-9	92524	BIPHENYL	1998-07-01	1999-07-19	1999-07-23
DD-99-00016314-3	13-97-110-48769-9	91203	NAPHTHALENE	1998-07-01	1999-07-19	1999-07-23
DD-99-00016314-3	13-97-111-07063-3	8001589	CREOSOTE	1999-07-19	1999-07-19	1999-07-23
DD-99-00016314-3	13-97-110-48770-1	N590	POLYCYCLIC AROMATIC COMPOUNDS	1998-07-01	1999-07-19	1999-07-23
DD-99-00016314-3	13-97-111-07062-1	132649	DIBENZOFURAN	1998-07-01	1999-07-19	1999-07-23
Reporting Year: 1998						
DD-99-00006147-7	13-98-120-17642-5	120127	ANTHRACENE	1999-06-29	1999-06-29	1999-07-02
DD-99-00006147-7	13-98-120-17643-7	91203	NAPHTHALENE	1999-06-29	1999-06-29	1999-07-02
DD-99-00006147-7	13-98-120-17644-9	N590	POLYCYCLIC AROMATIC COMPOUNDS	1999-06-29	1999-06-29	1999-07-02
DD-99-00006147-7	13-98-120-17645-2	8001589	CREOSOTE	1999-06-29	1999-06-29	1999-07-02
DD-99-00006147-7	13-98-120-17646-4	132649	DIBENZOFURAN	1999-06-29	1999-06-29	1999-07-02

AIR/COMPLIANCE CONSULTANTS, INC.

Memorandum

To:	Amos Kamerer
Company:	Koppers Industries, Inc., Portland Tar Plant
From:	Bill Cowell/Jill Merrill
Date:	January 7, 2000
Subject:	Reporting Omission--4 Barrels of Refined Tar Spills

Dear Amos:

Based on existing data, refined tar has three components of concern, in regarding reporting releases to the environment due to a spill.

Koppers analysis has showed that Refined Tar contains the following components

Anthracene	1.62%
Naphthalene	0.58%
PAC's	7.08%

Based on the information you provided Jill about 4 barrels or RT being spilled, this yields the following speciated component releases (assuming 55 gal/barrel and 10.0 lb/gal density)

Anthracene	35.6 lbs
Naphthalene	12.8 lbs
PAC's	155.8 lbs

Note: Anthracene and PACs are not considered HAP's, but are instead SARA reportable compounds. They along with Naphthalene would have to be reported in section 5 (Total Releases to the Environment) of the Form R Reports. If the spill was cleaned up and the contaminated soil was shipped off-site or treated on-site, then the spill would not be considered a release and instead would be categorized as disposal off-site or treatment on-site

If you have any questions or comments, please give me a call at 412 826-3636.

Regards, Bill

This was not needed, originally data reported included this

Air/Compliance Consultants, Inc.

Date: 1/7/00

Page 1 of 2

Project Number:

Please Deliver Immediately To:

Name: Amos Kamerer	Phone:
Company: Koppers Industries	Fax: 503 285 2831

From: Bill Cowell	Phone: (412) 826-3636
Air/Compliance Consultants, Inc.	Fax: (412) 826-3640

Message:

Non-Hazardous Waste Info as Requested

Please call if transmission is incomplete.

This message is intended only for the use of the Individual or Entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the Reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone, and return the original transmission to us at the above address via U.S. Postal Services. Thank you.

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Amos S. Kamerer
Plant Manager

Telephone: 503-286-3681
Fax: 503-285-2831

EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
Attn: Toxic Chemical Release Inventory
Magnetic Media Submission

KOPPERS INDUSTRIES, INC. PORTLAND TAR PLANT
7540 N.W. SAINT HELENS ROAD
PORTLAND
OR 97210-3663
TRI Fac. ID: 97210KPPRS7540N

06/29/2000

To Whom It May Concern:

Enclosed please find one (1) microcomputer diskette containing toxic chemical release reporting information for:

KOPPERS INDUSTRIES, INC. PORTLAND TAR PLANT

This information is submitted as required under Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and the Pollution Prevention Act of 1990.

We are submitting a total of **4** Chemical Report(s) for our facility.
These **4** Chemical Report(s) are described below:

Chemical Name	Report Year	CAS Number	Report Type
ANTHRACENE	1999	000120127	5-page Form R
NAPHTHALENE	1999	000091203	5-page Form R
POLYCYCLIC AROMATIC COMPO	1999	N590	5-page Form R
CREOSOTE	1999	008001589	5-page Form R

Our technical point of contact is:

MR. AMOS KAMERER PHONE NUMBER: (503) 286-3681

And is available should any questions or problems arise in your processing of these diskettes.

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Sincerely,

MR. AMOS KAMERER
PLANT MANAGER

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Amos S. Kamerer
Plant Manager

Telephone: 503-286-3681
Fax: 503-285-2831

Oregon Emergency Response Team
Office of State Fire Marshall
4760 Potland Road, Northeast
Salem, Or 97305-1760
Attn: Mr. Bob Alers

KOPPERS INDUSTRIES, INC. PORTLAND TAR PLANT
7540 N.W. SAINT HELENS ROAD
PORTLAND
OR 97210-3663
TRI Fac. ID: 97210KPPRS7540N

06/29/2000

To Whom It May Concern:

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CREOSOTE	1999	008001589	5-page Form R

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I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Sincerely,

MR. AMOS KAMERER
PLANT MANAGER

Date: 6/23/00 2:40 PM
Sender: Amos Kamerer
To: "Kimberly Coy" <SMTP:kcoy@air-comp.com>
cc: Traci Self; "Jill W Merrill" <SMTP:jmerrill@air-comp.com>; Mark Cilley
Priority: Normal
Subject: Re:Draft 1999 SARA Calcs - Portland

Kim,

First, Safety Kleen advises that the waste sent to Clive, Ut. last year was landfilled. Also, this shipment was a total of 1,200 pounds, in 4 drums; not 1,200 pounds per drum or 4,800 pounds total.

Also, I have forwarded a copy of this to Mark Cilley at our Stickney plant for his review, prior to the 28th, so please wait for his response before processing. Also, regarding any work for Portland in the future, please make sure to add Mark to the distribution list. Thank you.

Amos

Reply Separator

Subject: Draft 1999 SARA Calcs - Portland
Author: "Kimberly Coy" <SMTP:kcoy@air-comp.com>
Date: 6/23/00 11:26 PM

Amos:

Please review the attached file. Please have all comments by June 28 so
we can ensure the deadline of July 1 is met.

Also, what is done with the waste sent to Safety Kleen in Utah (cresoste
rags, et cetera)? Last year we noted it was landfilled in Utah and just
wanted to make sure it was the same.

Best regards, Kim

SARA99_E.XLS

Attachment 1. 1997/1998/1999 Comparison of SARA 313 Reports
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Chemical	Air Releases Non-Point (lbs/yr) Section 5.1	Air Releases Point (lbs/yr) Section 5.2	Water Releases Wastewater (lbs/yr) Section 5.3	Transfers Off-Site Cresoste (lbs/yr) Section 6.2	Transfers Off-Site RT (lbs/yr) Section 6.2	Quantity Released (lbs/yr) Section 8.1	Recycled On-site (lbs/yr) Section 8.4	Recycled Off-site (lbs/yr) Section 8.5	Treated On-site (lbs/yr) Section 8.6
Anthracene									
1997	2	49	0	NA	NA	52	12,433	0	0
1998	2	203	0	0	4	209	373	0	0
1999	4	0	0	2	NA	6	62,084	0	0
Biphenyl									
1997	0	24	0	NA	NA	24	0	0	0
1998	EXEMPT FROM REPORTING, <25,000 lbs AND 10,000 lbs								
1999	EXEMPT FROM REPORTING, <25,000 lbs AND 10,000 lbs								
Creosote									
1997	10	57	0	NA	NA	66	0	0	0
1998	11	16	0	206	0	233	25,200	0	0
1999	0	0	0	672	NA	672	0	0	0
Dibenzofuran									
1997	0	27	0	NA	NA	27	0	0	0
1998	0	2,741	0	3	0	2,744	346	0	0
1999	EXEMPT FROM REPORTING, DEMINIMIS								
Naphthalene									
1997	3	1,735	0	NA	NA	1,738	11,951	0	0
1998	3	22,096	0	51	1	22,151	6,276	0	0
1999	0	2,303	13	161	NA	2,478	43,298	0	0
PAC's									
1997	23	0	2	NA	NA	25	70,998	0	2
1998	14	1,764	20	0	16	1,814	52,776	0	0
1999	38	0	5	0	NA	43	138,317	0	0

Koppers018213

1999 Assumptions For SARA 313 Report

* Recycling On-site: It will be assumed that the pitch vapors going to the fume scrubber are recycled. The pitch fumes going to the fume scrubber will not be considered waste treatment, only recycling on-site.

* New tank T-200 fugitives not included - only in service 6 days in 1999.

Table 1-1-a. Summary of SARA 313 Reporting Quantities, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Chemical	Applicable to Reporting?	Air Releases		Water Releases	Transfers Off-site	Quantity	Recycled	Recycled	Treated	Treated	Total Annual	Applicable
		Non-Point (lbs/yr) Section 5.1	Point (lbs/yr) Section 5.2	Wastewater (lbs/yr) Section 5.3	Creosote (lbs/yr) Section 6.2	Released (lbs/yr) Section 8.1	On-site (lbs/yr) Section 8.4	Off-site (lbs/yr) Section 8.5	On-site (lbs/yr) Section 8.6	Off-site (lbs/yr) Section 8.7	Reportable Amount (lbs/yr)	Form
Anthracene	YES	4	0	0	2	6	62,084	0	0	0	62,090	FORMR
Benzene	NO	0	0	0	0	0	0	0	0	0	0	NA
Biphenyl	NO	0	216	0	3	219	0	0	0	0	219	NA
m-cresols	NO	0	0	0	2	2	0	0	0	0	2	NA
o-cresols	NO	0	0	0	0	0	0	0	0	0	0	NA
p-cresols	NO	0	0	0	2	2	0	0	0	0	2	NA
Creosote	YES	0	0	0	672	672	0	0	0	0	672	FORMR
Dibenzofuran	NO	0	1,401	0	8	1,409	1,932	0	0	0	3,341	NA
Ethylbenzene	NO	0	0	0	0	0	0	0	0	0	0	NA
Picoline	NO	0	0	0	0	0	0	0	0	0	0	NA
Naphthalene	YES	0	2,303	13	161	2,478	43,298	0	0	0	45,776	FORMR
PAC's	YES	38	0	5	0	43	138,317	0	0	0	138,360	FORMR
Phenanthrene	NO	0	0	0	11	11	7,246	0	0	0	7,257	NA
Phenol	NO	0	0	5	1	6	0	0	0	0	6	NA
Pyridine	NO	0	0	0	0	0	0	0	0	0	0	NA
Quinoline	NO	0	176	0	3	179	0	0	0	0	179	NA
Styrene	NO	0	0	0	1	1	0	0	0	0	1	NA
Toluene	NO	0	0	0	0	0	0	0	0	0	0	NA
m-xylene	NO	0	0	0	0	0	0	0	0	0	0	NA
o-xylene	NO	0	0	0	0	0	0	0	0	0	0	NA
p-xylene	NO	0	0	0	0	0	0	0	0	0	0	NA

Koppers018215

Table 1-1-b. Summary of Projected 2000 SARA 313 Reporting Quantities, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Chemical	Quantity Released (lbs/yr) Section 8.1	Recycled On-site (lbs/yr) Section 8.4	Recycled Off-site (lbs/yr) Section 8.5	Treated On-site (lbs/yr) Section 8.6	Treated Off-site (lbs/yr) Section 8.7
Anthracene	5	45,942	0	0	0
Benzene	0	0	0	0	0
Biphenyl	162	0	0	0	0
m-cresols	1	0	0	0	0
o-cresols	0	0	0	0	0
p-cresols	1	0	0	0	0
Creosote	497	0	0	0	0
Dibenzofuran	1,043	1,430	0	0	0
Ethylbenzene	0	0	0	0	0
Picoline	0	0	0	0	0
Naphthalene	1,833	32,041	0	0	0
PAC's	32	102,355	0	0	0
Phenanthrene	8	5,362	0	0	0
Phenol	4	0	0	0	0
Pyridine	0	0	0	0	0
Quinoline	132	0	0	0	0
Styrene	1	0	0	0	0
Toluene	0	0	0	0	0
m-xylene	0	0	0	0	0
o-xylene	0	0	0	0	0
p-xylene	0	0	0	0	0

Projected Pitch Production for 2000:	8,572,727
1999 Pitch Production:	11,510,937
Factor:	0.74

Koppers018216

Table 1-1-c. Summary of Projected 2001 SARA 313 Reporting Quantities, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Chemical	Quantity Released (lbs/yr) Section 8.1	Recycled On-site (lbs/yr) Section 8.4	Recycled Off-site (lbs/yr) Section 8.5	Treated On-site (lbs/yr) Section 8.6	Treated Off-site (lbs/yr) Section 8.7
Anthracene	6	55,876	0	0	0
Benzene	0	0	0	0	0
Biphenyl	197	0	0	0	0
m-cresols	2	0	0	0	0
o-cresols	0	0	0	0	0
p-cresols	2	0	0	0	0
Creosote	605	0	0	0	0
Dibenzofuran	1,268	1,739	0	0	0
Ethylbenzene	0	0	0	0	0
Picoline	0	0	0	0	0
Naphthalene	2,230	38,968	0	0	0
PAC's	39	124,485	0	0	0
Phenanthrene	10	6,521	0	0	0
Phenol	5	0	0	0	0
Pyridine	0	0	0	0	0
Quinoline	161	0	0	0	0
Styrene	1	0	0	0	0
Toluene	0	0	0	0	0
m-xylene	0	0	0	0	0
o-xylene	0	0	0	0	0
p-xylene	0	0	0	0	0

Projected Pitch Production for 2001:	10,363,363
1999 Pitch Production:	11,510,937
Factor:	0.9

Koppers018217

Table 1-2. Input Data for the 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Process Production/Usage Rates

Mixture	Density (lb/gal)	Yearly Total (gal)	Maximum On-site (gal)
Pitch	11.0	11,510,937	3,031,130
Heavy Oil	9.6	50,321	55,398
P1/P13 Creosote	9.0	12,935	12,935

On-Site Recycling

Waste	Total Pounds	
Scrubber Fluid	483,082	(Heavy Oil)

Tank Throughputs

Tank ID	Commodity	Throughput (gallons)	
T-33	Heavy Oil	50,321	
T-65	Liquid Pitch	11,510,937	
T-67	P1/P13 Creosote	12,935	
T-67	Heavy Oil	50,321	
T-68	Liquid Pitch	5,374,702	
T-3	Crude Methyl Naphthalene	0	Changed to Stormwater Service May 1,1998
T-23	Light Coal Tar Distillate (UCC)	0	Changed to Stormwater Service May 1,1998
T-34	Naphthalene Still Residue	0	Changed to Stormwater Service May 1,1998
T-17	P1/P13 Creosote	0	Changed to Stormwater Service May 1,1998
T-19	Priming and Refractory Oil	0	Changed to Stormwater Service January 1,1999

Koppers018218

Table 1-3. Reporting Inventories for Threshold Quantities and Maximum On-Site, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Mixture	Yearly Total (lbs)	% By Weight															
		Anthracene 120-12-7	Benzene 71-43-2	Biphenyl 92-52-4	m-cresol 108-39-4	o-cresol 95-48-7	p-cresol 106-44-5	Creosote 8001-58-9	Dibenzo-furan 132-64-8	Ethyl-Benzene 100-41-4	Meth-Pyridine (picoline) 109-06-8	Naphthalene 91-20-3	PAC's N590	Phenan-threne 85-01-8	Phenol 108-95-2	Pyridine 110-86-1	Quinoline 91-22-5
	Deminimus (%)	1.0	0.1	1.0	1.0	1.0	1.0	0.1	1.0	1.0	1.0	1.0	0.1	1.0	1.0	1.0	1.0
Pitch	126,620,307	0.790										0.040	7.930				
Heavy Oil	483,082	10.500							0.400				11.800	1.500			
P1/P13(Clean)	116,415	0.254	0.003	0.324	0.165		0.165	70.000	0.828	0.015	0.003	16.809		1.164	0.075	0.006	0.297
Does Chemical Meet Deminimus Exemption:		NO	YES	YES	YES	YES	YES	NO	YES	YES	YES	NO	NO	NO	YES	YES	YES

(Note: The deminimus exemption was only applied if the chemical in every mixture was below the deminimus threshold)

Yearly Totals

Mixture	Yearly Total (lbs)	Yearly Totals															
		Anthracene 120-12-7	Benzene 71-43-2	Biphenyl 92-52-4	m-cresol 108-39-4	o-cresol 95-48-7	p-cresol 106-44-5	Creosote 8001-58-9	Dibenzo-furan 132-64-9	Ethyl-Benzene 100-41-4	Meth-Pyridine (picoline) 109-06-8	Naphthalene 91-20-3	PAC's N590	Phenan-threne 85-01-8	Phenol 108-95-2	Pyridine 110-86-1	Quinoline 91-22-5
Pitch	126,620,307	1,000,300	NA	NA	NA	NA	NA	0	NA	NA	NA	50,648	10,040,980	0	NA	NA	NA
Heavy Oil	483,082	50,724	NA	NA	NA	NA	NA	0	NA	NA	NA	0	57,004	7,246	NA	NA	NA
P1/P13(Clean)	116,415	296	NA	NA	NA	NA	NA	81,491	NA	NA	NA	19,566	0	1,355	NA	NA	NA
Component Total:		1,051,320	0	0	0	0	0	81,491	0	0	0	70,216	10,097,994	8,601	0	0	0
Applicable to Reporting (Processes >25,000 lbs):		YES	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES	YES	NO	NO	NO	NO

Monthly Maximum On-site

Mixture	Maximum Monthly Total (lbs)	Monthly Maximums Totals															
		Anthracene 120-12-7	Benzene 71-43-2	Biphenyl 92-52-4	m-cresol 108-39-4	o-cresol 95-48-7	p-cresol 106-44-5	Creosote 8001-58-9	Dibenzo-furan 132-64-9	Ethyl-Benzene 100-41-4	Meth-Pyridine (picoline) 109-06-8	Naphthalene 91-20-3	PAC's N590	Phenan-threne 85-01-8	Phenol 108-95-2	Pyridine 110-86-1	Quinoline 91-22-5
Pitch	3,031,130	23,948	NA	NA	NA	NA	NA	0	NA	NA	NA	1,212	240,369	NA	NA	NA	NA
Heavy Oil	55,398	5,817	NA	NA	NA	NA	NA	0	NA	NA	NA	0	6,537	NA	NA	NA	NA
P1/P13(Clean)	12,935	33	NA	NA	NA	NA	NA	9,055	NA	NA	NA	2,174	0	NA	NA	NA	NA
		29,796	0	0	0	0	0	9,055	0	0	0	3,387	248,906	0	0	0	0

Koppers018219

threshold

Table 1-4. Summary of Storage Tank Emissions, Point Air Releases, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Tank ID	Contents	Throughput (gal)	Temp °F	D (ft)	Hs (ft)	Hl (ft)	V (ft3)	Turn overs	Mv (lb/mol)	Pva (psia)	La (lb/yr)	Lw (lb/yr)	Total (lb/yr)	Control (%)	Control Total (lb/yr)	Controlled Benzene (lb/yr)	Controlled Pyridine (lb/yr)	Controlled Toluene (lb/yr)	Controlled Picoline (lb/yr)	Controlled Ethylbenzene (lb/yr)	Controlled m-Xylene (lb/yr)	Controlled p-xylene (lb/yr)	Controlled Styrene (lb/yr)	Controlled Phenol (lb/yr)	Controlled p-cresol (lb/yr)	Controlled 2,4 Dimethyl m-cresol (lb/yr)	Controll Naphthale (lb/)
33	Heavy Oil	50,321	250	18	24	12	45682.28	1.10	161.80	0.00	0.15	0.06	0.21		0.2												
67	Heavy Oil	50,321	250	12	24	12	20303.23	2.48	161.80	0.00	0.05	0.06	0.11		0.1												
67	P1/P13 Creosote	12,935	150	12	24	12	20303.23	0.64	139.38	0.05	2.58	2.04	4.62		4.6	0.030	0.009	0.076	0.005	0.024	0.042	0.043	0.057	0.010	0.011	0.011	0.1
TOTAL																**0.030**	**0.009**	**0.076**	**0.005**	**0.024**	**0.042**	**0.043**	**0.057**	**0.010**	**0.011**	**0.011**	**0.1**

Notes:

1. Tank 67 contained two commodies during 1999. The number of days that each commodity was contained in the tank was calculated by multiplying the ratio of the commodity throughputs by 365 days per year. This value was then used to calculate standing losses from Tank 67.

Days Containing Heavy Oil =(50,321 gal/(50,321 + 12,935) gal) * 365 days/yr = 290 days
Days Containing Creosote = 365 days/yr -Days Containing Heavy Oil = 75 days

TOTALS	**(lb/yr)**
Anthracene	0.020
Benzene	0.030
Biphenyl	0.002
m-cresols	0.011
o-cresols	0.011
p-cresols	0.011
Creosote	
Dibenzofuran	0.000
Ethylbenzene	0.024
Picoline	0.005
Naphthalene	0.121
PAC's	
Phenanthrene	0.029
Phenol	0.010
Pyridine	0.009
Quinoline	0.030
Styrene	0.057
Toluene	0.076
m-xylene	0.042
o-xylene	0.055
p-xylene	0.043

Koppers018220

Table 1-5. Fugitive Equipment Leak Air Emissions, Non Point Air Releases, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Description	Commodity	Gas/LL/HL	Throughput (gal)	Pumping Rate (gpm)	Actual Hours	Number of Equipment Type					TOC Emission Factors (lb/hr/source)					TOC Potential Emissions (lb/hr)					
						P	V	PRV	OEL	FL	P	V	PRV	OEL	FL	P	V	PRV	OEL	FL	TOTA
Tank 67	P1/P13 Creosote	HL	12,935	200	2	3	23	0	1	57	0.01899	0.00051	0.22907	0.00374	0.00403	0.057	0.012	0.000	0.004	0.230	0.3C
Tank 67	Heavy Oil	HL	50,321	200	8	3	23	0	1	57	0.01899	0.00051	0.22907	0.00374	0.00403	0.057	0.012	0.000	0.004	0.230	0.3C
Tank 33	Heavy Oil	HL	50,321	80	21	1	7	0	0	18	0.01899	0.00051	0.22907	0.00374	0.00403	0.019	0.004	0.000	0.000	0.073	0.09
Pitch Storage	Pitch	HL	11,510,937	400	959	5	31	0	5	68	0.01899	0.00051	0.22907	0.00374	0.00403	0.095	0.016	0.000	0.019	0.274	0.4C
Pitch Loading	Pitch	HL	11,510,937	400	480	2	11	0	2	33	0.01899	0.00051	0.22907	0.00374	0.00403	0.038	0.006	0.000	0.007	0.133	0.18
Hot Oil System (Old)	Oil	HL	101,912	200	5,797	6	100	1	0	170	0.01899	0.00051	0.22907	0.00374	0.00403	0.114	0.051	0.229	0.000	0.685	1.07
Hot Oil System (New)	Oil	HL	101,912	200	360	7	159	0	0	207	0.01899	0.00051	0.22907	0.00374	0.00403	0.133	0.081	0.000	0.000	0.834	1.04
TOTAL																0.513	0.182	0.229	0.034	2.459	3.41

		Speciated Emissions (lbs/yr)																		
		Anthracene	Benzene	Biphenyl	m-cresols	o-cresols	p-cresols	Creosote	Dibenzo	Ethylbenz	Picoline	Naphth	PACs	Phenan	Phenol	Pyridine	Quinoline	Styrene	Toluene	m-xylene	o-xyle
Tank 67	P1/P13 Creosote	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tank 67	Heavy Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tank 33	Heavy Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pitch Storage	Pitch	3	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	
Pitch Loading	Pitch	1	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	
Hot Oil System (Old)	Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hot Oil System (New)	Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL		4	0	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	

		Commodity % by weight																		
		Anthracene	Benzene	Biphenyl	m-cresols	o-cresols	p-cresols	Creosote	Dibenzo	Ethylbenz	Picoline	Naphth	PACs	Phenan	Phenol	Pyridine	Quinoline	Styrene	Toluene	m-xylene	o-xyle
Tank 67	P1/P13 Creosote	0.254	0.003	0.324	0.165	0.000	0.165	70.000	0.828	0.015	0.003	16.809	0.000	1.164	0.075	0.006	0.297	0.054	0.021	0.032	0.02
Tank 67	Heavy Oil	10.500	0.000	0.000	0.000	0.000	0.000	0.000	0.400	0.000	0.000	0.000	11.800	1.500	0.000	0.000	0.000	0.000	0.000	0.000	0.0C
Tank 33	Heavy Oil	10.500	0.000	0.000	0.000	0.000	0.000	0.000	0.400	0.000	0.000	0.000	11.800	1.500	0.000	0.000	0.000	0.000	0.000	0.000	0.0C
Pitch Storage	Pitch	0.790	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040	7.930	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0C
Pitch Loading	Pitch	0.790	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040	7.930	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0C
Hot Oil System (Old)	Oil	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0C
Hot Oil System (New)	Oil	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0C

KEY

LL	Light Liquid
HL	Heavy Liquid
P	Pump
V	Valve
PRV	Pressure Relief Device
FL	Flanges

Emission factors contained in EPA 453/R-95-017, SOCMI average emission factors.
Actual hours calculated using the following formula (except Hot Oil Heaters, where data provided by Koppers):
Hours = 2 * [throughput/ pumping rate] / 60
New Tank T-200 fugitives not included - only in service 6 days in 1999.

Koppers018221

Table 1-6-a. Fume Recovery Emissions, Point Air Releases, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Fume Recovery VOC Emissions: 3,018 pounds per 720 hours, per ChemCad
Fume Recovery Hourly Emissions: 4.19 lbs/hr
Fume Recovery Operating Hours: 5,673 hours
Fume Recovery Annual Emissions: 23,770 lbs/yr

Constituent	Emission Factors (lb/720 hr)	(lb/hr)	Emissions (lbs/yr)
Anthracene	0.00	0.000	0
Benzene	0.00	0.000	0
Biphenyl	27.31	0.038	216
m-cresols	0.00	0.000	0
o-cresols	0.00	0.000	0
p-cresols	0.00	0.000	0
Creosote	0.00	0.000	0
Dibenzofuran	178.01	0.247	1,401
Ethylbenzene	0.00	0.000	0
Picoline	0.00	0.000	0
Naphthalene	292.44	0.406	2,303
PAC's	0.00	0.000	0
Phenanthrene	0.00	0.000	0
Phenol	0.00	0.000	0
Pyridine	0.00	0.000	0
Quinoline	22.00	0.031	176
Styrene	0.00	0.000	0
Toluene	0.00	0.000	0
m-xylene	0.00	0.000	0
o-xylene	0.00	0.000	0
p-xylene	0.00	0.000	0

Koppers018222

Table 1-6-b. Fume Recovery Emissions, Operating Hours, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Assumptions:

All Pitch comes in as solid pitch		
Total Annual Pitch Production:	63,310	tons/yr
Pitch Charging into T-65	58	tons/hr, based on 1,200 tons per each change of 20.6 hrs
% Pitch loaded into trucks from T-68:	60	% of total pitch production
Pitch loading pumping rate into trucks from T-68:	55.5	tons/hr, based on 37 tons loaded per 40 minutes
% Pitch loaded into railcar from T-65:	40	% of total pitch production
Pitch loading pumping rate into railcars from T-65:	58.0	tons/hr, based on 87 tons loaded per 90 minutes
% Pitch transferred from T-65 to T-68	60.0	% of total pitch production
Pitch transfer pumping rate from T-65 to T-68	70.0	tons/hr
Heavy Oil pumping rate	23	tons/hr, based on 1,200 gal/15min, and a density of 9.6 lbs/gal
Heavy Oil Annual Usage	242	tons/yr

Calculations:

Transfer Description	Amount per Charge (tons)	Pumping Rate (ton/hr)	Annual Amount Transferred (tons/yr)	Annual Transfer Time (hours)	Annual Number of Transfers	T-65 fume hours	T-68 fume hours	Total hours
Dry Pitch Charging	1200	58	63,310	1,092	53	1,208		1,208
From T-68 to trucks	37	55.5	37,986	684	1,027		2,738	2,738
From T-65 to rail	87	58.0	25,324	437	291	1,019		1,019
From T-65 to T-68	1200	70.0	37,986	543	32		607	607
Heavy oil tranfer	5.4	23	242	11	45	51	51	101
TOTALS:				**2,767**	**1,448**	**2,278**	**3,396**	**5,673**

Assume all transfers (except Solid Pitch) are done independently and that the scrubbers are at high capacity (1,050 scfm). Assume it takes one hour before and after each transfer to turn the fume system off and on.

Koppers018223

Table 1-7. Summary of Water Releases, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Sample calculation:

gal/day x mg/l x 3.785 l/gal x 1 g/1000mg x 1lb/454 g x days/mo. = lb/mo.

		Measured Concentration					Water Releases				
Sample	Flow Rate	Anthracene 120-12-7	Naphthalene 91-20-3	PAC's N590	Phenol 108-95-2	Phenanthrene 85-01-8	Anthracene 120-12-7	Naphthalene 91-20-3	PAC's N590	Phenol 108-95-2	Phenanthrene
	GPD	mg/L	mg/L	mg/L	mg/L	mg/L	lb	lb	lb	lb	lb
Jan-99	28,387	0.0079	0.4800	0.0438	0.0000	0.0120	0.06	3.52	0.32	0.00	0.09
Feb-99	49,286	0.0079	0.4800	0.0438	0.0600	0.0120	0.09	5.52	0.50	0.69	0.14
Mar-99	35,484	0.0079	0.4800	0.0438	0.0000	0.0120	0.07	4.40	0.40	0.00	0.11
Apr-99	22,000	0.0110	0.0000	0.1423	0.2600	0.0000	0.06	0.00	0.78	1.43	0.00
May-99	28,387	0.0110	0.0000	0.1423	0.0000	0.0000	0.08	0.00	1.04	0.00	0.00
Jun-99	14,667	0.0110	0.0000	0.1423	0.0000	0.0000	0.04	0.00	0.52	0.00	0.00
Jul-99	7,097	0.0005	0.0003	0.0378	0.0000	0.0014	0.00	0.00	0.07	0.00	0.00
Aug-99	7,097	0.0005	0.0003	0.0378	0.0500	0.0014	0.00	0.00	0.07	0.09	0.00
Sep-99	7,333	0.0005	0.0003	0.0378	0.0700	0.0014	0.00	0.00	0.07	0.13	0.00
Oct-99	14,194	0.0039	0.0000	0.0870	0.0600	0.0000	0.01	0.00	0.32	0.22	0.00
Nov-99	22,000	0.0039	0.0000	0.0870	0.0000	0.0000	0.02	0.00	0.48	0.00	0.00
Dec-99	21,290	0.0039	0.0000	0.0870	0.0900	0.0000	0.02	0.00	0.48	0.50	0.00
					TOTAL		0	13	5	3	0

Notes:

1. Anthracene, naphthalene, phenanthrene and PAC were measured are measured quarterly.
2. Phenol concentrations were taken from the monthly discharge report.

SUMMARY	lb/yr
Anthracene	0
Benzene	
Biphenyl	
m-cresols	
o-cresols	
p-cresols	
Creosote	
Dibenzofuran	
Ethylbenzene	
Picoline	
Naphthalene	13
PAC's	5
Phenanthrene	0
Phenol	5
Pyridine	
Quinoline	
Styrene	
Toluene	
m-xylene	
o-xylene	
p-xylene	

Koppers018224

Table 1-8. Calculation of Hazardous Waste Shipments, Transfer to Off-Site Locations, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

In 1999, 4 drums of creosote spill material was shipped off-site to be landfilled. It is assumed that the material is approximately 20% cresosote (similar to Woodward Tar Plant). The material was sent to the following destination:

Safety-Kleen (TG), Inc.
3 Miles East, 7 Miles North
Exit 41 OffI-80
Clive, Utah 84083
ID: UTD991301748

Total amount shipped: 1200 ~~4,800~~ pounds Total

Calculations

Chemical	Creosote Spill Material	
	Composition by weight (%)	Quantity Transferred (pounds)
Total Transferred:		4,800
Anthracene	0.051	2
Benzene	0.001	0
Biphenyl	0.065	3
m-cresols	0.033	2
o-cresols	0.000	0
p-cresols	0.033	2
Creosote	14.000	672
Dibenzofuran	0.166	8
Ethylbenzene	0.003	0
Picoline	0.001	0
Naphthalene	3.362	161
PAC's	0.000	0
Phenanthrene	0.233	11
Phenol	0.015	1
Pyridine	0.001	0
Quinoline	0.059	3
Styrene	0.011	1
Toluene	0.004	0
m-xylene	0.006	0
o-xylene	0.005	0
p-xylene	0.006	0

Table 1-9. Calculation of Fume Recovery Fluid Recycling, Recycling On-Site, 1999 SARA 313 Report
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Scrubber Fluid: Heavy Oil

Chemical	Fume Recovery Fluid Recycling Composition by weight (%)	Quantity Transferred (pounds)
Total Recycled		483,082
Anthracene	10.50	50,724
Benzene	0.00	0
Biphenyl	0.00	0
m-cresols	0.00	0
o-cresols	0.00	0
p-cresols	0.00	0
Creosote	0.00	0
Dibenzofuran	0.40	1,932
Ethylbenzene	0.00	0
Picoline	0.00	0
Naphthalene	0.00	0
PAC's	11.80	57,004
Phenanthrene	1.50	7,246
Phenol	0.00	0
Pyridine	0.00	0
Quinoline	0.00	0
Styrene	0.00	0
Toluene	0.00	0
m-xylene	0.00	0
o-xylene	0.00	0
p-xylene	0.00	0

Notes:

1. The scrubber is Tank 102.

Koppers018226

Table 1-10. Calculation of Pitch Fume Recycling, Recycling On-Site, 1999 SARA 313 Report
Koppers Industries, Inc. Portland, Oregon.

Pitch vapors from the pitch tanks and pitch loading racks are directed to a fume scrubber, where pitch is knocked-out into the creosote, then sold as product.

Influent Pitch Hourly Emissions:	24.7	lbs/hr, per existing ChemCAD
Fume Recovery Hours of Operation:	5,673	hours
Influent Pitch Annual Emissions:	140,123	lbs/yr
Temperature of vapors:	400	F

Component	% weight @400 F	Quantity Recycled (pounds/yr)
Anthracene	8.11	11,360
Benzene	0.00	0
Biphenyl	0.00	0
m-cresols	0.00	0
o-cresols	0.00	0
p-cresols	0.00	0
Creosote	0.00	0
Dibenzofuran	0.00	0
Ethylbenzene	0.00	0
Picoline	0.00	0
Naphthalene	30.90	43,298
PAC's	58.03	81,313
Phenanthrene	0.00	0
Phenol	0.00	0
Pyridine	0.00	0
Quinoline	0.00	0
Styrene	0.00	0
Toluene	0.00	0
m-xylene	0.00	0
o-xylene	0.00	0
p-xylene	0.00	0

Koppers018227

Table 1-11. Calculation of the Production Ratio, 1999 SARA 313 Report
Koppers Industries, Inc. Portland, Oregon.

1999 Pitch Production:	11,510,937	gallons
1998 Pitch Production:	10,224,364	gallons, per AK, Koppers
Production Ratio:	1.13	

Koppers018228

Date: 3/9/00 9:20 AM
Sender: Amos Kamerer
To: jmerrill@air-copm.com
cc: Traci Self; Mark Cilley
Priority: Normal
Subject: Form R

Jill,

I was looking for something off of this report and I noticed that our NPDES number is incorrect, so you should note the correct one for the next report as.....ORD101642.

Amos

1998

~~1997~~ SARA Title III, Toxic Chemical Reporting Inventory, Tank and Tank Car Throughputs
Koppers Industries, Inc., Portland Tar Plant, Portland, Oregon

Tank ID	Commodity	Tank Capacity (gallons)	Tank Diameter (ft)	Tank Height (ft)		1998 ~~1997~~ Throughput (gallons)	Notes
T-3	Crude Methyl Naphthalene	100,000	24.00	30.00		~~0~~ 2,687	Not to be considered in inventory
T-33	Heavy Oil	45,000	18.00	24.00		~~56,784~~ 65,417	Working and standing losses
T-23	Light Coal Tar Distillate (UCC)	20,000	12.00	24.00		0 0	Standing losses only
T-68	Liquid Pitch	245,000	37.80	29.50	(1)	~~4,175,141~~ [1]	Standing & Vented to Fume System
T-65	Liquid Pitch	750,000	60.30	35.60	(2)	~~6,958,569~~	Standing & Vented to Fume System
T-34	Naphthalene Still Residue	45,000	18.00	24.00		~~0~~ 1,111	Not to be considered in inventory
T-17	P1/P13 Creosote	20,000	24.00	12.00		36,000 [2] SAME	Working and standing losses
T-67	P1/P13 Creosote	90,000	24.25	28.50		~~203,522~~ 250,719	Working and standing losses
T-19	Priming and Refractory Oil	20,000	12.00	24.00		~~0~~ 715	Standing losses only
Railcars	Refined Tars	30,000	17	17		~~156,090~~ 95,409	Working and standing losses

[1] All pitch that enters the facility is melted in Tank 65. It is assumed that 100% of the pitch is stored in Tank 65, and 60% is transferred to Tank 68.

[2] Throughput was assumed to be 3,000 gallons per month.

(1) 6,073,923 (TRUCK) - .594%

(2) 4,150,131 (CARS) - .406%

Koppers018230

Author: AMOS KAMERER at PITT
Date: 1/5/99 4:28 PM
Priority: Normal
TO: William Freudenberger at Internet
TO: Larry_Blomquist@intalco.com at Internet
TO: Russell_Brandt@intalco.com at Internet
TO: Don Evans at PITT
TO: John Kunkle at PITT
TO: James Schaum at PITT
TO: Susan Koval at PITT
TO: Kenneth Regel at PITT
Subject: Intalco's pitch inventory report

---------- Message Contents ----------

Below please find the December recap of Intalco's pitch inventory at the Koppers Industries, Portland, Oregon terminal.

	December	
	pounds	metric tons
opening inventory	7,988,150	3,623.4
receipts(pencils)	0	0
shipments(liquid)	4,007,120	1,817.6
closing inventory	3,981,030	1,805.8
total YTD receipts	50,705,800	23,000.0
total YTD shipments	46,698,680	21,194.2

If you do not agree with any of this information, please advise.

Amos Kamerer

- INTALCO/TRUCK
- KAISER-TACOMA/TRUCK

+ 20,114,580

66,813,260 # TRUCK

6,073,933 GALLONS

TOTAL SHIPMENTS 112,468,000

< 66,813,260> TRUCKS

45,654,740 # RAILCAR

4,150,431 GALLONS

CREOSOTE 1998 SHIPMENTS = 2,863,300 #

318,144 GALS

	ALCOA	Kaiser-Mead	Intalco	* Kaiser-Tacoma, 1998
J.				2,808,560
F.				1,602,520
M.				1,848,980
A.				1,736,320
M.				1,534,620
J.				1,813,280
J.				1,580,160
A.				1,741,240
S.				2,077,320
O.				900,620
N.				1,304,640
D.				1,166,320
				20,114,580

Tank T-99 Water Discharge

Koppers018233

COLUMBIA INSPECTION, INC.

Environmental • Petroleum • Wastewater • Drinking Water
LABORATORY

Dick Reid
Laboratory Director

www.columbiainspection.com
7133 North Lombard Street
Portland, OR 97203

Toll Free (888) 2-INSPEC
Phone (503) 286-9464
Fax (503) 285-7831
Cellular (503) 970-7919

Koppers018234

Ann O'Roke
(503) 823-7230
FAX 823-7537

Kamerer Amos

From: Oroke, Ann [ANNO@BES.CI.PORTLAND.OR.US]
Sent: Tuesday, October 08, 2002 4:51 PM
To: Kamerer Amos
Subject: RE: batch discharge request-Approval

That should be all that is necessary. I'll just make a copy of our emails
for the records.

-----Original Message-----
From: Kamerer Amos [mailto:KamererAS@koppers.com]
Sent: Tuesday, October 08, 2002 3:36 PM
To: Oroke, Ann
Subject: RE: batch discharge request-Approval

Ann,

Our discharge was completed today. We started at 0915 hours and finished at
1430 hours. The total discharge was 12,595 gallons, which calculates to 40
GPM.

Is there any follow up paper work that you need? If so, please let me know.

Thank you again, for all of your assistance in helping me with this.

Regards,

Amos

-----Original Message-----
From: Oroke, Ann [mailto:ANNO@BES.CI.PORTLAND.OR.US]
Sent: Wednesday, October 02, 2002 3:29 PM
To: Kamerer Amos
Subject: batch discharge request-Approval

Amos,

It was really very nice of you to come over to meet with me and discuss your
batch discharge.

The discharge is approved and there are no charges due. The tank was filled with city water and you paid the sewer fees involved at that time.
The is no batch discharge charges for permitted companies. I checked on the
rate of discharge and 80 gpm is acceptable.

All I'll need is for you to email me the actual date and time period after
you conduct your discharge and we'll be done with the paperwork.

Let me know if you have any concerns or if I can be of additional assistance..

10/8/02

T-99

0900 Start measurement 2.5 ft

0915 Start Pumping

1430 Stop Pumping

1430 Stop measurement .75 ft

Start 2.5 ft 17,993 Gal.

Stop .75 5398 Gal.

12595 Pumped

Koppers018237

Kamerer Amos

From: Kamerer Amos
Sent: Wednesday, October 02, 2002 3:34 PM
To: 'Oroke, Ann'
Subject: RE: batch discharge request-Approval

Thank you, Ann,

I'll notify you both prior to and after the discharge.

Amos

-----Original Message-----
From: Oroke, Ann [mailto:ANNO@BES.CI.PORTLAND.OR.US]
Sent: Wednesday, October 02, 2002 3:29 PM
To: Kamerer Amos
Subject: batch discharge request-Approval

Amos,

It was really very nice of you to come over to meet with me and discuss your
batch discharge.

The discharge is approved and there are no charges due. The tank was filled with city water and you paid the sewer fees involved at that time.
The is no batch discharge charges for permitted companies. I checked on the
rate of discharge and 80 gpm is acceptable.

All I'll need is for you to email me the actual date and time period after
you conduct your discharge and we'll be done with the paperwork.

Let me know if you have any concerns or if I can be of additional assistance..

ENVIRONMENTAL SERVICES
CITY OF PORTLAND

BATCH DISCHARGE REQUEST

Batch Discharge Number:

_____ -- _____

(For City use only)

Date of Request: October 2, 2002

Requested by:

Contact Name: Amos Kamerer

Company Name: Koppers Industries, Inc.

Company Address: 7540 NW Saint Helens Road

City: Portland State: Oregon Zip: 97210-3663

Telephone: 503-286-3681 Cellular: 503-705-8748

Facsimile: 503-285-2831 Pager: N/A

Waste Generator:

Facility Name: Koppers Industries, Inc.

Facility Address: 7540 NW Saint Helens Road

City: Portland State: Oregon Zip: 97210-3663

Facility Contact: Amos Kamerer Telephone: 503-286-3681

Description of Wastewater (attach analytical data report): City water that was added to Tank # T-99, which contains coal tar residues, to stabilize the tank during the flood of 1996 when it started to float.

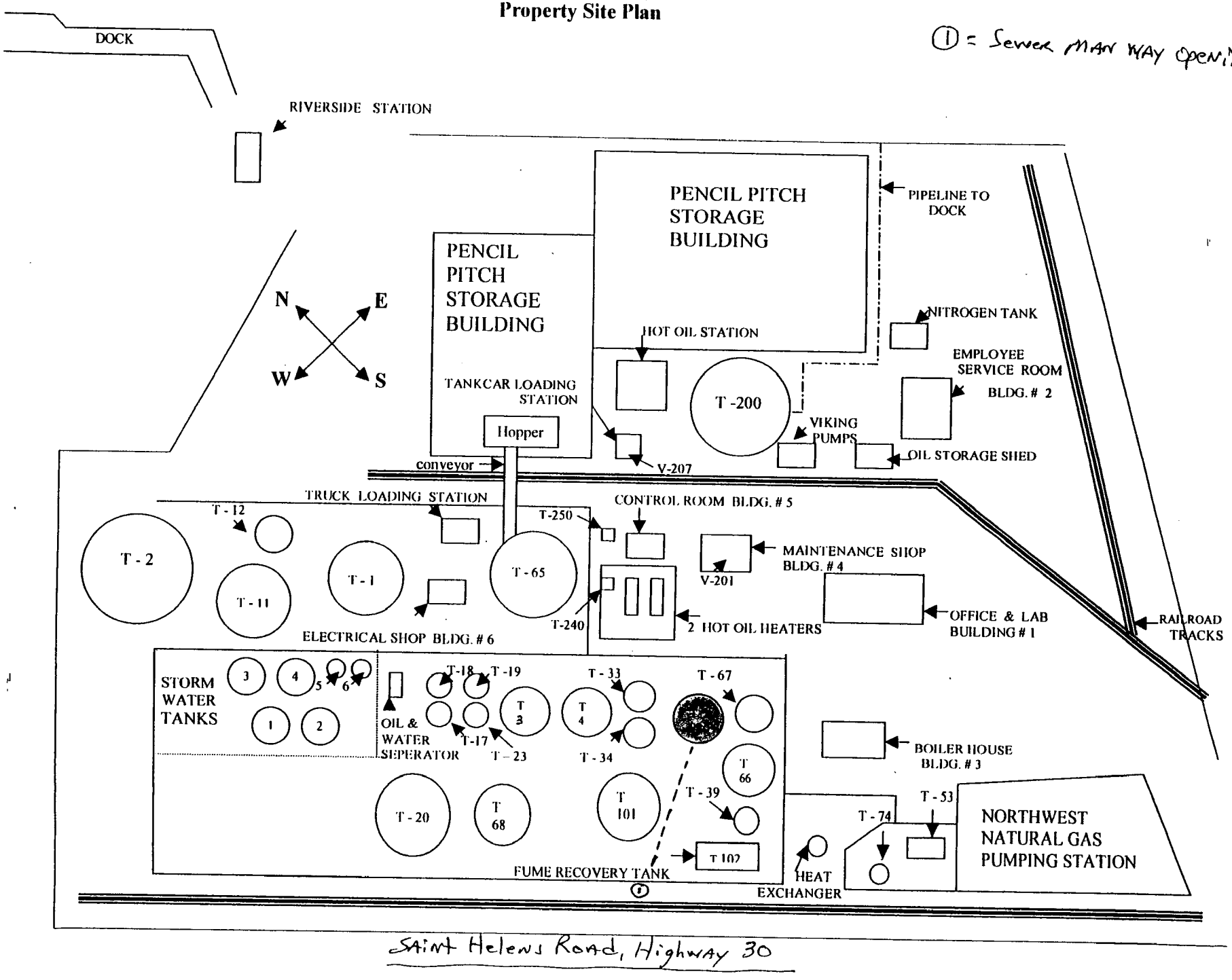
Proposed Date(s) of Discharge: October 7, 8 or 9, pending the permit approval. The discharge should take approximately 3 hours using an 80 GPM pump.

Estimated Volume: 13,000 gallons

Proposed point of disposal (attach diagram): City sewer man way located on plant property, per the attached site Map.

Signature _____ Date 10/2/02

Property Site Plan



① = Sewer man way opening

Koppers018240

COPY

CI CERTIFICATE OF ANALYSIS

CLIENT: Koppers Industries, Inc.
7540 NW St. Helens Road
Portland OR, 97210-3663
ATTN: Amos Kamerer

PROJECT NAME: Tank 99 Water Test

PHONE: (503) 286-3681
FAX: (503) 285-2831

SUBMITTED: 09/19/02 10:49

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
2091908-01	Tank 99 Wastewater Grab	09/19/2002	0000	Water

REPORT DATE: 09/27/02 16:20 REPORT NUMBER: 2091908

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
2091908-01	**SAMPLE ID: Tank 99 Wastewater Grab**						
General Bench Analysis							
O & G, TOTAL (HEM)	EPA 1664	TOTAL OIL AND GREASE	17	mg/L	2	CX	09/27/2002 15:48
PH	EPA 150.1/9040	pH	8.13	SU		DR	09/19/2002 14:26
Total Metals by Inductively Coupled Plasma							
CADMIUM - ICP	EPA 200.7/6010B	CADMIUM	0.009	mg/L	0.001	GW	09/24/2002 11:57
CHROMIUM - ICP		CHROMIUM	0.014	mg/L	0.001	GW	09/24/2002 11:57
LEAD - ICP		LEAD	ND	mg/L	0.001	GW	09/24/2002 11:57
NICKEL - ICP		NICKEL	0.065	mg/L	0.004	GW	09/24/2002 11:57
ZINC - ICP		ZINC	0.065	mg/L	0.001	GW	09/24/2002 11:57
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
ACID SEMIVOLS 625	EPA 625	2-CHLOROPHENOL	ND	mg/L	0.0050	RVM	09/27/2002 13:54
		P-CHLORO-M-CRESOL	ND	mg/L	0.0050		
		2,4-DICHLOROPHENOL	ND	mg/L	0.0050		
		2,4-DIMETHYLPHENOL	ND	mg/L	0.0050		
		2,4-DINITROPHENOL	ND	mg/L	0.0050		
		2-NITROPHENOL	ND	mg/L	0.0050		
		4-NITROPHENOL	ND	mg/L	0.0050		
		PHENOL	ND	mg/L	0.0050		
		PENTACHLOROPHENOL	ND	mg/L	0.025		
		2,4,5-TRICHLOROPHENOL	ND	mg/L	0.0050		
		2,4,6-TRICHLOROPHENOL	ND	mg/L	0.0050		
		4,6-DINITRO-O-CRESOL	ND	mg/L	0.025		
		Surrogate: Phenol-d6	0.328 %	%RECOVERY	50-150		
		Surrogate: 2,4,6-Tribromophenol	70.2 %	%RECOVERY	50-150		
B/N SEMIVOL 625		ACENAPHTHENE	ND	mg/L	0.0050	RVM	09/27/2002 14:27
		ACENAPHTHYLENE	ND	mg/L	0.0050		
		a-TERPINEOL	ND	mg/L	0.0050		
		ANTHRACENE	0.22	mg/L	0.0050		
		BENZIDINE	ND	mg/L	0.010		
		BENZO(a)ANTHRACENE	ND	mg/L	0.0050		
		BENZO(a)PYRENE	ND	mg/L	0.0050		
		BENZO(k)FLUORANTHENE	ND	mg/L	0.0050		
		BENZO(g,h,i)PERYLENE	ND	mg/L	0.0050		
		BENZO(b)FLUORANTHENE	ND	mg/L	0.0050		

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SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
2091908-01	**SAMPLE ID: Tank 99 Wastewater Grab**						
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
B/N SEMIVOL 625	EPA 625	BIS(2-CHLOROETHOXY)METHANE	ND	mg/L	0.0050	RVM	09/27/2002 14:27
		BIS(2-CHLOROETHYL)ETHER	ND	mg/L	0.0050		
		BIS(2-CHLOROISOPROPYL)ETHER	ND	mg/L	0.0050		
		BIS(2-ETHYLHEXYL)PHTHALATE	0.020	mg/L	0.0050		
		BUTYL BENZYL PHTHALATE	ND	mg/L	0.0050		
		4-BROMOPHENYL PHENYL ETHER	ND	mg/L	0.0050		
		CARBAZOLE	ND	mg/L	0.0050		
		2-CHLORONAPHTHALENE	ND	mg/L	0.0050		
		4-CHLOROPHENYL PHENYL ETHER	ND	mg/L	0.0050		
		CHRYSENE	0.094	mg/L	0.0050		
		N-DECANE	ND	mg/L	0.0050		
		DIBENZO(a,h)ANTHRACENE	ND	mg/L	0.0050		
		3,3-DICHLOROBENZIDINE	ND	mg/L	0.010		
		1,2-DICHLOROBENZENE	ND	mg/L	0.0050		
		1,3-DICHLOROBENZENE	ND	mg/L	0.0050		
		1,4-DICHLOROBENZENE	ND	mg/L	0.0050		
		DIETHYL PHTHALATE	ND	mg/L	0.0050		
		DIMETHYL PHTHALATE	ND	mg/L	0.0050		
		DI-N-BUTYL PHTHALATE	ND	mg/L	0.0050		
		DI-N-OCTYL PHTHALATE	ND	mg/L	0.0050		
		2,4-DINITROTOLUENE	ND	mg/L	0.010		
		1,2-DIPHENYLHYDRAZINE (as AZOBENZENE)	ND	mg/L	0.0050		
		2,6-DINITROTOLUENE	ND	mg/L	0.010		
		FLUORANTHENE	0.31	mg/L	0.0050		
		FLUORENE	0.38	mg/L	0.0050		
		HEXACHLOROBENZENE	ND	mg/L	0.0050		
		HEXACHLOROBUTADIENE	0.021	mg/L	0.0050		
		HEXACHLOROCYCLOPENTADIENE	ND	mg/L	0.025		
		HEXACHLOROETHANE	ND	mg/L	0.0050		
		INDENO(1,2,3-cd)PYRENE	ND	mg/L	0.0050		
		ISOPHORONE	ND	mg/L	0.0050		
		NAPHTHALENE	0.83	mg/L	0.0050		
		NITROBENZENE	ND	mg/L	0.0050		
		N-NITROSODIMETHYLAMINE	ND	mg/L	0.0050		
		N-NITROSODIPHENYLAMINE	ND	mg/L	0.0050		
		N-NITROSO-DI-N-PROPYLAMINE	ND	mg/L	0.0050		
		N-OCTADECANE	0.0079	mg/L	0.0050		
		PHENANTHRENE	1.2	mg/L	0.0050		
		PYRENE	0.22	mg/L	0.0050		
		1,2,4-TRICHLOROBENZENE	ND	mg/L	0.0050		
		Surrogate: 2-Fluorobiphenyl	34.2 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-d5	53.7 %	%RECOVERY	50-150		
		Surrogate: p-Terphenol-d14	39.0 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 625	EPA 625 (SCAN)	AROCHLOR 1016	ND	mg/L	0.0023	RVM	09/27/2002 11:47
		AROCHLOR 1221	ND	mg/L	0.0023		

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SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
2091908-01	**SAMPLE ID: Tank 99 Wastewater Grab**						
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 625	EPA 625 (SCAN)	AROCHLOR 1232	ND	mg/L	0.0023	RVM	09/27/2002 11:47
		AROCHLOR 1242	ND	mg/L	0.0023		
		AROCHLOR 1248	ND	mg/L	0.0023		
		AROCHLOR 1254	ND	mg/L	0.0023		
		AROCHLOR 1260	ND	mg/L	0.0023		
PESTICIDES 625	EPA 625 (SIM)	ALDRIN	ND	mg/L	0.0031	RVM	09/27/2002 13:36
		ALPHA-BHC	ND	mg/L	0.0015		
		BETA-BHC	ND	mg/L	0.0031		
		GAMMA-BHC (LINDANE)	ND	mg/L	0.0015		
		DELTA-BHC	ND	mg/L	0.0031		
		4,4-DDD	ND	mg/L	0.0062		
		4,4-DDE	ND	mg/L	0.0031		
		CHLORDANE	ND	mg/L	0.0031		
		4,4-DDT	ND	mg/L	0.0062		
		DIELDRIN	ND	mg/L	0.0031		
		ENDOSULFAN I	ND	mg/L	0.0031		
		ENDOSULFAN II	ND	mg/L	0.0062		
		ENDOSULFAN SULFATE	ND	mg/L	0.0062		
		ENDRIN	ND	mg/L	0.0031		
		ENDRIN ALDEHYDE	ND	mg/L	0.0077		
		HEPTACHLOR	ND	mg/L	0.0031		
		HEPTACHLOR EPOXIDE	ND	mg/L	0.0031		
		METHOXYCHLOR	ND	mg/L	0.0077		
		TOXAPHENE	ND	mg/L	0.062		

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COLUMBIA INSPECTION, INC 7133 N. Lombard, Portland, OR 97203 Phone:(503) 286-9464 Fax:(503) 286-5355 E-mail:lab@ColumbiaInspection.com

ENVIRONMENTAL SERVICES
CITY OF PORTLAND

BATCH DISCHARGE REQUEST

Date of Request: _____

Batch Discharge Number:
_____ -- _____
(For City use only)

Requested by:

Contact Name: _____

Company Name: _____

Company Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____ Cellular: _____

Facsimile: _____ Pager: _____

Waste Generator:

Facility Name: _____

Facility Address: _____

City: _____ State: _____ Zip: _____

Facility Contact: _____ Telephone: _____

Description of Wastewater (attach analytical data report): _____

_____

_____

_____

Proposed Date(s) of Discharge: _____

Estimated Volume: _____ gallons

Proposed point of disposal (attach diagram): _____

_____

_____

_____ _____
Signature Date

Industrial Source Control Division

BATCH DISCHARGE REQUEST PROCEDURE

The following procedures are to be followed when requesting a batch discharge of industrial wastewater to the City of Portland (hereafter the City) sanitary sewer system, regardless of the volume of the discharge. Industrial users, who have a current a six-month batch discharge authorization, may be exempt from the following procedures, if they have established other procedures governing periodic batch discharges.

All industrial users of the City sewer system are to be aware that it is unlawful to discharge industrial waste into the City sewer system in excess of the limitations established in City code, Section 17.34.030 and 17.34.040, and Industrial Source Control Division Administrative Rules (Table 1).

Batch discharges to the sanitary sewer must take place during **DRY WEATHER ONLY**. Dry weather is defined by the Oregon Department of Environmental Quality as a time it is not raining and it has not rained in the Portland metropolitan area during the previous eight (8) hours. Melting ice and snow, even though there has been no precipitation for the previous eight hours, shall be considered wet weather.

- The discharger may be liable for penalties incurred by the City if the discharge exacerbates a combined sewer overflow (CSO) on a wet day.

- The discharger may be liable for penalties incurred by the City if the discharge causes a CSO on a dry day.

The normal discharge rate allowed for a batch discharge is 50 gallons/minute (gpm). Greater flow rates must be approved by the BES's Maintenance Engineering. Maintenance Engineering may:

- Limit the discharge rate due to sewer conditions, location of sewer diversions, etc.

- Require discharger's personnel be available to monitor the discharge and to be in contact with City personnel monitoring the flow.

All batch discharges may be subject to the appropriate fees (Table 2), which will be invoiced after discharge is completed.

Please read the following conditions and instructions carefully to ensure a correct and quick response to each batch discharge request.

Koppers018245

Batch discharges are not allowed without written permission. To obtain permission for a discharge, submit a written request to the Industrial Source Control Division for each batch discharge requested. A *Batch Discharge Request* form (attached) may be used, or a request, written on company letterhead, will be acceptable. A non-refundable application fee may be required with the request (Table 2). At the City's discretion, the application fee may be invoiced for payment.

1. If a written request is received on letterhead, the request shall contain:

   a. The name and facility address of the waste generator.

   b. A description of the wastewater to be discharged.

   c. All analytical test results for pollutants which might be expected to be present in significant quantities in the batch wastewater. Analytical methods should conform to 40 CFR 136 *Guidelines Establishing Test Procedures for the Analysis of Pollutants* and any amendments thereto.

   d. The estimated volume of the discharge.

   e. The specific location of the waste material (e.g., process area or tank identification.)

   f. The preferred method and point of discharge into the City sewer. (Please send a map or drawing of facility pinpointing discharge location.)

   g. For discharge rates exceeding 50 gpm, please include:

      (1) The method for metering flow and how compliance with the authorized discharge rate will be assured.

      (2) The communications protocol which will be established, if necessary, between the applicant and the Bureau of Maintenance and/or other City representatives.

Send all written requests to:

Batch Discharge Program
Industrial Source Control Division
Water Pollution Control Laboratory
Bureau of Environmental Services
6543 N. Burlington Avenue
Portland, Oregon 97203

3. Upon receipt of the written request, the Industrial Source Control Division will review the request. Additional sampling and analysis may be required to aid the review process.

Koppers018246

4. If wastewater samples fail to meet discharge limitations set forth in Chapter 17.34 or the Administrative Rules, additional pretreatment and sampling shall be required and requests shall be resubmitted for additional review.

5. All discharges will be approved by the City in writing. Prior to discharging, the industrial user shall sign an agreement issued by the Industrial Source Control Division to ensure compliance with conditions applicable to a specific discharge.

6. Discharges that require additional sampling, special analysis, or exceed the biochemical oxygen demand (BOD_5) and/or total suspended solids (TSS) concentrations defined in Section 17.36.060(a) of the City code, may be subject to extra-strength sewage charges and administrative fees (Table 2).

7. After written approval to discharge has been obtained from the City, and prior to discharge of any industrial wastewater, the discharger shall return the acknowledgment of terms to the Industrial Source Control Division prior to any wastewater discharge.

   As part of the terms for discharge, the Industrial Source Control Division may schedule City sampling. If City sampling is required, please allow 48 hours for scheduling a sample collection and an additional 5 to 6 days for laboratory results to confirm that the planned discharge meets discharge limits of the City of Portland.

   If requested by the City, the wastewater samples collected during the discharge shall be provided to or split with the Water Pollution Control Laboratory (WPCL).

8. After permission is granted, the discharger shall maintain a written log of all batch discharges to the sewer system. At a minimum, the log shall record the date, time, volume, and weather conditions for each batch discharge to the City sewer. In addition, all sample analysis data shall be recorded and maintained with the log. These records shall be available for review by City personnel upon request.

9. The *Batch Discharge Report* issued with the approval letter shall be returned to the Industrial Source Control Division within thirty (30) days of completion of the discharge.

The City reserves the right to revoke this special authorization at any time. If you have any questions or comments, please contact Brett Hulstrom at 823-7807 (telephone) or 823-5559 (facsimile).

Koppers018247

Table 1. **WASTEWATER DISCHARGE LIMITATIONS**
(Effective 26 October 1998)

Applicable Regulations: Chapter 17.34 of the Code of the City of Portland

Pollutant	City Discharge Limit (mg/liter)	Screening Values (mg/liter)	Prohibited Discharge (> MDL)
arsenic (total)	0.2		
cadmium (total)	0.7		
chromium (total)	5.0		
copper (total)	3.7		
lead (total)	0.7		
mercury (total)	0.010		
molybdenum (total)	1.4		
nickel (total)	2.8		
selenium (total)	0.6		
silver (total)	0.4		
zinc (total)	3.7		
ammonia	BMP		
closed-cup flashpoint	< 140°F prohibited		
cyanide (total)	1.2		
fluoride	BMP		
oil and grease: non-polar	110		
oil and grease: polar	BMP		
pH	5.0 - 11.5 SU		
sulfate	BMP		
sulfide: dissolved	4.0		
1,2-dichloroethane	0.50		
2,4-dinitrotoluene	0.13		
acrylonitrile	1.00		
chlordane	0.03		
chlorobenzene	0.20		
chloroform	0.20		
nitrobenzene	2.00		
pentachlorophenol	0.04		
trichloroethene (tce)	0.20		
1,1,1-trichloroethane		1.60	
1,1,2,2-tetrachloroethane		0.40	
1,1-dichloroethane		2.30	
1,2-dichloroethene (trans)		0.30	
1,2-dichloropropane		3.60	
1,3-dichloropropene (trans)		0.10	
2,4,6-trichlorophenol		0.60	
2-methyl-4,6-dinitrophenol		3.50	
acrolein		0.10	
aldrin		0.40	
benzene		0.14	
benzo(a)pyrene		10.0	
carbon tetrachloride		0.03	
chrysene		4.70	
ethyl benzene		1.60	
hexachloroethane		0.10	
methylene chloride		2.10	
naphthalene		2.70	
tetrachloroethene		0.30	
toluene		1.40	

Koppers018248

Table 1. **WASTEWATER DISCHARGE LIMITATIONS (Effective 26 October 1998)**

Pollutant	City Discharge Limit (mg/liter)	Screening Values (mg/liter)	Prohibited Discharge (> MDL)
1,1,1,2-tetrachloroethane			0.010
1,1,2-trichloroethane			0.005
1,1-dichloroethene			0.005
1,2,4-trichlorobenzene			0.005
1,2-dichlorobenzene			0.005
1,2-diphenylhydrazine			0.005
1,3-dichlorobenzene			0.005
1,4-dichlorobenzene			0.005
2,3,7,8-tcdd			
2,6-dinitrotoluene			0.005
4,4'-ddd (p,p'-tde)			0.001
4,4'-dde (p,p'-ddx)			0.001
4,4'-ddt			0.001
4-bromophenyl phenyl ether			0.005
bhc-alpha			0.001
bhc-beta			0.001
bhc-delta			0.001
bhc-gamma (lindane)			0.001
bis(2-chloroethoxy) methane			0.010
bis(2-chloroisopropyl) ether			0.010
bromodichloromethane			0.005
bromoform			0.005
bromomethane			0.010
chloroethane			0.050
chloromethane			0.005
dibromochloromethane			0.005
dieldrin			0.001
endosulfan I			0.001
endosulfan II			0.001
endosulfan sulfate			0.001
endrin			0.001
endrin aldehyde			0.001
heptachlor			0.001
heptachlor epoxide			0.001
hexachlorobenzene			0.005
hexachlorobutadiene			0.005
hexachlorocyclopentadiene			0.005
n-nitroso-di-n-propylamine			0.005
pcb 1016			0.001
pcb 1221			0.001
pcb 1232			0.001
pcb 1242			0.001
pcb 1248			0.001
pcb 1254			0.001
pcb 1260			0.001
toxaphene			0.001
vinyl chloride			0.050

Analyses for compounds listed as "prohibited discharge" should have method detection limits (MDLs) equal to or better than those listed above.

Koppers018249

Table 2. **APPLICABLE FEES**

Application Fee (non-refundable)	*Effective 1 July 1999*	$ 50.00
Sewer Charges		*(effective 1 July 2001)*
Sanitary sewage volume charge		$ 4.242/ccf
Clean Water to Separated Storm Sewer		$ 0.457/ccf
Biochemical oxygen demand	> 300 mg/liter	$ 0.405/pound/ccf
Total suspended solids	> 350 mg/liter	$ 0.487/pound/ccf
Approximate Hourly Rates	Costs for personnel and equipment will depend upon number required to monitor flow, etc.	

Koppers018250

Kamerer Amos

From: Oroke, Ann [ANNO@BES.CI.PORTLAND.OR.US]
Sent: Thursday, September 19, 2002 3:53 PM
To: 'KamererAS@koppers.com'
Subject: local limits

batch discharge request form.d...

batch discharge request proced...

Amos,

In the document entited batch discharge procedure are the limitations that
your batch discharge will need to meet, don't worry if not everything was
tested for in the list. If you have any concerns or questions just let me
know. My phone number is 503-823-7230 or you can fax me the results at
503-823-5559. I have also included the procedure and batch discharge
request form to be filled out when you get the analytical results. .

<<batch discharge request form.doc>> <<batch discharge request procedure.doc>>

Dick Reid, Columbia Insp.

This F.Y.I.

Amos

9/20/02

8 pages

KOPPERS INDUSTRIES

FAX TRANSMITTAL

7540 N.W. Saint Helens Rd.
Portland, Oregon 97210-3663
Phone: (503) 286-3681
Fax: (503) 285-2831
Web Page: www.koppers.com

TO: Ann O'Rorke, Ptd. Env. Service DATE: 10/1/02

FROM: Amos Kamerer TOTAL # OF PAGES: 4

Ann, here's the test results. Let me know what you think.

Thank you.

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

CI CERTIFICATE OF ANALYSIS

CLIENT: Koppers Industries, Inc.
7540 NW St. Helens Road
Portland OR, 97210-3663
ATTN: Amos Kamerer

PHONE: (503) 286-3681
FAX: (503) 285-2831

PROJECT NAME: Tank 99 Water Test

SUBMITTED: 09/19/02 10:49

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
2091908-01	Tank 99 Wastewater Grab	09/19/2002	0000	Water

REPORT DATE: 09/27/02 16:20 REPORT NUMBER: 2091908 PAGE: 1 OF 3

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
2091908-01	**SAMPLE ID: Tank 99 Wastewater Grab**						
General Bench Analysis							
O & G, TOTAL (HEM)	EPA 1664	TOTAL OIL AND GREASE	17	mg/L	2	CX	09/27/2002 15:48
PH	EPA 150.1/9040	pH	8.13	SU		DR	09/19/2002 14:26
Total Metals by Inductively Coupled Plasma							
CADMIUM - ICP	EPA 200.7/6010B	CADMIUM	0.009	mg/L	0.001	GW	09/24/2002 11:57
CHROMIUM - ICP		CHROMIUM	0.014	mg/L	0.001	GW	09/24/2002 11:57
LEAD - ICP		LEAD	ND	mg/L	0.001	GW	09/24/2002 11:57
NICKEL - ICP		NICKEL	0.065	mg/L	0.004	GW	09/24/2002 11:57
ZINC - ICP		ZINC	0.065	mg/L	0.001	GW	09/24/2002 11:57
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
ACID SEMIVOLS 625	EPA 625	2-CHLOROPHENOL	ND	mg/L	0.0050	RVM	09/27/2002 13:54
		P-CHLORO-M-CRESOL	ND	mg/L	0.0050		
		2,4-DICHLOROPHENOL	ND	mg/L	0.0050		
		2,4-DIMETHYLPHENOL	ND	mg/L	0.0050		
		2,4-DINITROPHENOL	ND	mg/L	0.0050		
		2-NITROPHENOL	ND	mg/L	0.0050		
		4-NITROPHENOL	ND	mg/L	0.0050		
		PHENOL	ND	mg/L	0.0050		
		PENTACHLOROPHENOL	ND	mg/L	0.025		
		2,4,5-TRICHLOROPHENOL	ND	mg/L	0.0050		
		2,4,6-TRICHLOROPHENOL	ND	mg/L	0.0050		
		4,6-DINITRO-O-CRESOL	ND	mg/L	0.025		
		Surrogate: Phenol-d6	0.328 %	%RECOVERY	50-150		
		Surrogate: 2,4,6-Tribromophenol	70.2 %	%RECOVERY	50-150		
B/N SEMIVOL 625		ACENAPHTHENE	ND	mg/L	0.0050	RVM	09/27/2002 14:27
		ACENAPHTHYLENE	ND	mg/L	0.0050		
		a-TERPINEOL	ND	mg/L	0.0050		
		ANTHRACENE	0.22	mg/L	0.0050		
		BENZIDINE	ND	mg/L	0.010		
		BENZO(a)ANTHRACENE	ND	mg/L	0.0050		
		BENZO(a)PYRENE	ND	mg/L	0.0050		
		BENZO(k)FLUORANTHENE	ND	mg/L	0.0050		
		BENZO(g,h,i)PERYLENE	ND	mg/L	0.0050		
		BENZO(b)FLUORANTHENE	ND	mg/L	0.0050		

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Authorized for Release By:

David T. Back - Quality/Systems Manager

CI CERTIFICATE OF ANALYSIS

REPORT DATE: 09/27/02 16:20 REPORT NUMBER:2091908

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
2091908-01	**SAMPLE ID: Tank 99 Wastewater Grab**						
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
B/N SEMIVOL 625	EPA 625	BIS(2-CHLOROETHOXY)METHANE	ND	mg/L	0.0050	RVM	09/27/2002 14:27
		BIS(2-CHLOROETHYL)ETHER	ND	mg/L	0.0050		
		BIS(2-CHLOROISOPROPYL)ETHER	ND	mg/L	0.0050		
		BIS(2-ETHYLHEXYL)PHTHALATE	0.020	mg/L	0.0050		
		BUTYL BENZYL PHTHALATE	ND	mg/L	0.0050		
		4-BROMOPHENYL PHENYL ETHER	ND	mg/L	0.0050		
		CARBAZOLE	ND	mg/L	0.0050		
		2-CHLORONAPHTHALENE	ND	mg/L	0.0050		
		4-CHLOROPHENYL PHENYL ETHER	ND	mg/L	0.0050		
		CHRYSENE	0.094	mg/L	0.0050		
		N-DECANE	ND	mg/L	0.0050		
		DIBENZO(a,h)ANTHRACENE	ND	mg/L	0.0050		
		3,3-DICHLOROBENZIDINE	ND	mg/L	0.010		
		1,2-DICHLOROBENZENE	ND	mg/L	0.0050		
		1,3-DICHLOROBENZENE	ND	mg/L	0.0050		
		1,4-DICHLOROBENZENE	ND	mg/L	0.0050		
		DIETHYL PHTHALATE	ND	mg/L	0.0050		
		DIMETHYL PHTHALATE	ND	mg/L	0.0050		
		DI-N-BUTYL PHTHALATE	ND	mg/L	0.0050		
		DI-N-OCTYL PHTHALATE	ND	mg/L	0.0050		
		2,4-DINITROTOLUENE	ND	mg/L	0.010		
		1,2-DIPHENYLHYDRAZINE (as AZOBENZENE)	ND	mg/L	0.0050		
		2,6-DINITROTOLUENE	ND	mg/L	0.010		
		FLUORANTHENE	0.31	mg/L	0.0050		
		FLUORENE	0.38	mg/L	0.0050		
		HEXACHLOROBENZENE	ND	mg/L	0.0050		
		HEXACHLOROBUTADIENE	0.021	mg/L	0.0050		
		HEXACHLOROCYCLOPENTADIENE	ND	mg/L	0.025		
		HEXACHLOROETHANE	ND	mg/L	0.0050		
		INDENO(1,2,3-cd)PYRENE	ND	mg/L	0.0050		
		ISOPHORONE	ND	mg/L	0.0050		
		NAPHTHALENE	0.83	mg/L	0.0050		
		NITROBENZENE	ND	mg/L	0.0050		
		N-NITROSODIMETHYLAMINE	ND	mg/L	0.0050		
		N-NITROSODIPHENYLAMINE	ND	mg/L	0.0050		
		N-NITROSO-DI-N-PROPYLAMINE	ND	mg/L	0.0050		
		N-OCTADECANE	0.0079	mg/L	0.0050		
		PHENANTHRENE	1.2	mg/L	0.0050		
		PYRENE	0.22	mg/L	0.0050		
		1,2,4-TRICHLOROBENZENE	ND	mg/L	0.0050		
		Surrogate: 2-Fluorobiphenyl	34.2 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-d5	53.7 %	%RECOVERY	50-150		
		Surrogate: p-Terphenol-d14	39.0 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 625	EPA 625 (SCAN)	AROCHLOR 1016	ND	mg/L	0.0023	RVM	09/27/2002 11:47
		AROCHLOR 1221	ND	mg/L	0.0023		

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CI CERTIFICATE OF ANALYSIS

REPORT DATE: 09/27/02 16:20 REPORT NUMBER:2091908 PAGE: 3 OF 3

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
2091908-01	**SAMPLE ID: Tank 99 Wastewater Grab**						
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 625	EPA 625 (SCAN)	AROCHLOR 1232	ND	mg/L	0.0023	RVM	09/27/2002 11:47
		AROCHLOR 1242	ND	mg/L	0.0023		
		AROCHLOR 1248	ND	mg/L	0.0023		
		AROCHLOR 1254	ND	mg/L	0.0023		
		AROCHLOR 1260	ND	mg/L	0.0023		
PESTICIDES 625	EPA 625 (SIM)	ALDRIN	ND	mg/L	0.0031	RVM	09/27/2002 13:36
		ALPHA-BHC	ND	mg/L	0.0015		
		BETA-BHC	ND	mg/L	0.0031		
		GAMMA-BHC (LINDANE)	ND	mg/L	0.0015		
		DELTA-BHC	ND	mg/L	0.0031		
		4,4-DDD	ND	mg/L	0.0062		
		4,4-DDE	ND	mg/L	0.0031		
		CHLORDANE	ND	mg/L	0.0031		
		4,4-DDT	ND	mg/L	0.0062		
		DIELDRIN	ND	mg/L	0.0031		
		ENDOSULFAN I	ND	mg/L	0.0031		
		ENDOSULFAN II	ND	mg/L	0.0062		
		ENDOSULFAN SULFATE	ND	mg/L	0.0062		
		ENDRIN	ND	mg/L	0.0031		
		ENDRIN ALDEHYDE	ND	mg/L	0.0077		
		HEPTACHLOR	ND	mg/L	0.0031		
		HEPTACHLOR EPOXIDE	ND	mg/L	0.0031		
		METHOXYCHLOR	ND	mg/L	0.0077		
		TOXAPHENE	ND	mg/L	0.062		

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Authorized for Release By: David T. Back - Quality/Systems Manager

COLUMBIA INSPECTION, INC 7133 N. Lombard, Portland, OR 97203 Phone:(503) 286-9464 Fax:(503) 286-5355 E-mail:lab@ColumbiaInspection.com

WASTE MANAGEMENT, INC ....NO N HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE M[illegible] TER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISP[illegible] SE OF NON-HAZARDOUS MATERIALS

This permit authorizes dispo[illegible] of Customer's waste materials in accordance with the Industrial Waste & Dispos[illegible] Services Agreement dated *5/2003*.

EXPIRES: 6/29/09

GENERATOR: K[illegible] PPERS, INC.

DESCRIPTION: *SOLID C[illegible] AL TAR PITCH, OFF SPEC CHEMICALS, PITC[illegible] COKE*	TONS: *500*
☒ SPECIAL WASTE ☐ CS ☐ CLEAN-UP MATERIAL	
LOCATION: *PORTLAND, OR[illegible] GON*	COUNTY: *Multnomah*
CONTACT: *C.J. TURNER*	PHONE: *503-286-3681*
	FAX: *503-285-2831*

BILLING: *Landfill account KOP[illegible] S INC.*	PO#: *N/A*	JOB#: *N/A*

We accept business c[illegible] ks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING: *NOT[illegible] CONTROL DUST*

MK TT TyT

APPROVED: *KRISTIN CASTNER* DATE: *04/08/08 3:34:59 PM*

A COPY OF THIS P[illegible] RMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIM[illegible] CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WASTE MANAGEMENT

HAZARDOUS W[illegible] ASTE IS STRICTLY PROHIBITED

WASTE MANAGEMENT

Hillsboro Landfill Generator's Recertification

Permit Number: 2560

		YES	NO	N/A
1.	Is the waste represented by this waste profile sheet a "Hazardous Waste" as defined by the USEPA, Canadian, Mexican, and/or State, Providence regulation, in the location where generated or ultimately managed?		X	
2.	Does the waste represented by this waste profile sheet contain regulated radioactive material or regulate concentration of Polychlorinated Biphenyls (PCB's)?		X	
3.	Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?	X		
4.	Has all the relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?	X		
5.	Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.21 or equivalent rules?	X		
6.	Will all changes that occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?	X		
7.	Has the process generating the waste been changed for the above referenced profile?		X	

Generators Signature: TJ Turner Title: Plant Superintendent

Name (type or print): TJ Turner

Company Name: Koppers Inc. Date: 4/8/08

Waste Management Decision

Precautions, Special Handling: _____

Waste Approval Managers Signature: _____ Date: _____

Please note any changes to contact names, phone or fax in the space below

_____

_____

_____

Hillsboro Landfill Generator's Recertification

Permit Number: 2560

		YES	NO
1.	Is the waste represented by this waste profile sheet a "Hazardous Waste" as Defined by USEPA, Canadian, Mexican and/or state/providence regulations in the location where generated or ultimately managed?		X
2.	Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentration of Polycholrinated Biphenyl s (PCB's).		X
3.	Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?	X	
4.	Has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?	X	
5.	Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.209(c) or equivalent rules?	X	
6.	Will all changes that in occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?	X	
7.	Has the process generating the waste been changed for the above referenced profile?		X

Generators Signature: T G Turner Title Plant Superintendent

Name(Type or Print): T G Turner

Company Name: Koppers Date: 5-17-07

Waste Management Decision

Precautions, Special Handling: _____

Special Waste Decisions: _____

Environmental Specialist Signature: _____ Date: _____

Please note any changes to contact names, phone or fax number in space below

_____

_____

_____

WASTE MANAGEMENT

Columbia Ridge, Hillsboro, Riverbend, Graham Road, Capitol, Wenatchee, Alaska Street

Hillsboro Landfill
3205 SE Minter Bridge Road
Hillsboro, Oregon 97123

May 11, 2007

Permit Renewal Notice

From
~~To~~: T.J. Turner
Fax #: 503-285-2831

TO
~~From~~: **Kristin Castner – Waste Management**
Fax #: 503-493-7822

Total Pages Including Cover Sheet -2
Permit #: 2560

Your permit to dispose at Hillsboro Landfill is expiring or has expired. If analytical or an MSDS was supplied with the original application, Waste Management is requiring updated analytical or MSDS information. If you are submitting updated analytical information please include the QA/QC data and Chain of Custody. Also if there is any change to the waste stream, please contact me at (503) 493-7834, to discuss any additional analysis that may be required to renew the permit for another year.

Please fax the renewal back to Kristin at (503) 493-7822.

Thank you,

Kristin Castner
Waste Approval Manager – PNW
Waste Management, Inc.

WASTE MANAGEMENT, INC ....NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

This permit authorizes disposal of Customer's waste materials in accordance with the Industrial Waste & Disposal Services Agreement dated *5/2003*.

EXPIRES: 6/29/08

GENERATOR: KOPPERS, INC.

DESCRIPTION: *SOLID COAL TAR PITCH, OFF SPEC CHEMICALS, PITCH COKE*	**TONS:** *500*
☒ **SPECIAL WASTE** ☐ **CS** ☐ **CLEAN-UP MATERIAL**	
LOCATION: *PORTLAND, OREGON*	**COUNTY:** *Multnomah*
CONTACT: *T.J. TURNER*	**PHONE:** *503-286-3681*
	FAX: *503-285-2831*

BILLING: *Landfill account KOPPERS INC.*	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : *NOTE: CONTROL DUST*

MK TT TyT

APPROVED: KC *KRISTIN CASTNER* DATE: *06/05/07 3:25:01 PM*

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WM

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

KOPPERS

FAX TRANSMITTAL

7540 N.W. Saint Helens Rd.
Portland. Oregon 97210-3663
Phone: (503) 286-3681
Fax: (503) 285-2831
Web Page: www.koppers.com

TO: Kristin Castiver, Hillsboro Landfill DATE: 5/23/06

FROM: Amos Kamanen TOTAL # OF PAGES: 2

Any questions, call T.B. or myself.

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

WASTE MANAGEMENT

Hillsboro Landfill
3205 SE Minter Bridge Road
Hillsboro, Oregon 97123

April 6, 2006

Permit Renewal Notice

To: T. J. Turner
Fax #: 503-285-2831

From: Kristin Castner – Waste Management
Fax #: (503) 493-7822

Total pages including cover sheet - 2
Permit # 2560

Your permit to dispose at Hillsboro Landfill is expiring or has expired. If analytical or an MSDS was supplied with the original application, Waste Management is requiring updated analytical or MSDS information. If you are submitting updated analytical information please include the QA/QC data and the Chain of Custody. Also if there is any change to the waste stream, please contact me at **(503) 493-7834**, for further information on any additional analysis that may be required to renew the permit for another year.

Please fax renewal back to Kristin at (503) 493-7822. Thank you.

Thank you,

Kristin Castner
Industrial Technical Service Manager
Waste Management Inc.

Hillsboro Landfill Generator's Recertification

Permit Number: _____

	YES	NO	N/A
1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as Defined by USEPA, Canadian, Mexican and/or state/providence regulation, in the location where generated or ultimately managed?		X	
2. Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentration of Polycholrinated Biphenyl's (PCB's).		X	
3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?	X		
4. Has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?	X		
5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.209(c) or equivalent rules?	X		
6. Will all changes that in occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?	X		
7. Has the process generating the waste been changed for the above referenced profile?		X	

Generators Signature: T. J. Turner Title: General Foreman

Name(Type or Print): T. J. Turner

Company Name: Koppers Inc. Date: 5/23/06

Waste Management Decision

Precautions, Special Handling: _____

Special Waste Decisions: _____

Environmental Specialist Signature: _____ Date: _____

Please note any changes to contact names, phone or fax number in space below

_____

_____

_____

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

This permit authorizes disposal of Customer's waste materials in accordance with the Industrial Waste & Disposal Services Agreement dated *5/2003*.

EXPIRES: 6/29/07

GENERATOR: KOPPERS, INC.

DESCRIPTION:*SOLID COAL TAR PITCH, OFF SPEC CHEMICALS, PITCH COKE*	TONS:*500*
☒SPECIAL WASTE ☐CS ☐CLEAN-UP MATERIAL	
LOCATION: *PORTLAND, OREGON*	COUNTY:*Multnomah*
CONTACT: *T.J. TURNER*	PHONE: *503-286-3681*
	FAX: *503-285-2831*

BILLING: *Landfill account KOPPERS INC.*	PO#: *N/A*	JOB#: *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : *NOTE: CONTROL DUST*

MK TT TyT

APPROVED: KC *KRISTIN CASTNER* DATE: *05/24/06 9:04:31 AM*

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WM

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

Fax: May 24 2006 10 53am p001/00

WASTE MANAGEMENT, INC ....NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

This permit authorizes disposal of Customer's waste materials in accordance with the Industrial Waste & Disposal Services Agreement dated *5/2003*.

EXPIRES: 6/29/06

GENERATOR: KOPPERS, INC.

DESCRIPTION: *SOLID COAL TAR PITCH, OFF SPEC CHEMICALS, PITCH COKE*	**TONS:** *100*
☒ **SPECIAL WASTE** ☐ **CS** ☐ **CLEAN-UP MATERIAL**	
LOCATION: *PORTLAND, OREGON*	**COUNTY:** *Multnomah*
CONTACT: *T.J. TURNER*	**PHONE:** *503-286-3681*
	FAX: *503-285-2831*

BILLING: *Landfill account BILL HAULER*	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : ***NOTE:*** ***CONTROL DUST***
HAULER: WM, EMERALD SERVICES, WCMC

MK **TT** **TyT**

APPROVED: KQ ***KRISTIN CASTNER*** DATE: ***06/29/05 4:56:35 PM***

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

Hillsboro Landfill Generator's Recertification

Permit Number: _____

	YES	NO	N/A
1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as Defined by USEPA, Canadian, Mexican and/or state/providence regulation, in the location where generated or ultimately managed?		X	
2. Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentration of Polycholrinated Biphenyl's (PCB's).		X	
3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?	X		
4. Has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?	X		
5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.209(c) or equivalent rules?	X		
6. Will all changes that in occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?	X		
7. Has the process generating the waste been changed for the above referenced profile?		X	

Generators Signature: T. J. Turner Title: GENERAL FOREMAN

Name(Type or Print): T. J. TURNER

Company Name: KOPPERS INC. Date: 6/7/05

Waste Management Decision

Precautions, Special Handling: _____

Special Waste Decisions: _____

Environmental Specialist Signature: _____ Date: _____

Please note any changes to contact names, phone or fax number in space below

_____

_____

_____

WASTE MANAGEMENT

June 7, 2005
~~April 5, 2005~~

Hillsboro Landfill
3205 SE Minter Bridge Road
Hillsboro, Oregon 97123

Permit Renewal Notice

To: ~~Andy Kameron~~ T. J. Turner
Fax #: 503-285-2831

From: Kristin Castner – Waste Management
Fax #: (503) 493-7822

Total pages including cover sheet - 2
Permit # 2560

Your permit to dispose at Hillsboro Landfill is expiring or has expired. If analytical or an MSDS was supplied with the original application, Waste Management is requiring updated analytical or MSDS information. If you are submitting updated analytical information please include the QA/QC data and the Chain of Custody. Also if there is any change to the waste stream, please contact me at (503) 493-7834, for further information on any additional analysis that may be required to renew the permit for another year.

We are also in the process of updating our Service Agreements and Credit Application. ***If applicable***, could you please fill out and sign the attached paperwork. Fax back to me with the renewal, it would be greatly appreciated.

Please fax renewal back to Kristin at (503) 493-7822. Thank you.

Thank you,

Klastner

Kristin Castner
Industrial Technical Service Manager
Waste Management Inc.

To

WASTE MANAGEMENT, INC ....NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

This permit authorizes disposal of Customer's waste materials in accordance with the Industrial Waste & Disposal Services Agreement dated *5/03*.

EXPIRES: 6/25/05

GENERATOR: KOPPERS, INC.

DESCRIPTION: *SOLID COAL TAR PITCH, OFF SPEC CHEMICALS, PITCH COKE*	**TONS:** *100*
☒ **SPECIAL WASTE** ☐ **CS** ☐ **CLEAN-UP MATERIAL**	
LOCATION: *PORTLAND, OREGON*	**COUNTY:** *Multnomah*
CONTACT: *AMOS KAMERER*	**PHONE:** *503-286-3681*
	FAX: *503-285-2831*

BILLING: *Landfill account BILL HAULER*	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : ***NOTE:*** ***CONTROL DUST***
HAULER: WM, EMERALD SERVICES, WCMC

MK **TT** **TyT**

APPROVED: KC ***KRISTIN CASTNER*** DATE: ***05/24/04 1:47:51 PM***

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WM

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

KOPPERS

TRADE REFERENCES

KMG-Bernuth Inc.
10611 Harwin Drive
Houston, TX 77036
Attn: Credit Department
Fax Request Only: 713-777-0314

ISG-Burns Harbor Inc.
250 West U. S. Hwy 12
Burns Harbor, IN 46304
Fax: 219-787-7565

Flint Hills Resources LP
4111 East 37th St. N.
Wichita, KS 67220
Phone: 316-828-8779
Fax: 316-828-5781
Attn: Kenneth Parks

United States Steel
Treasury Department
600 Grant Street
Room 1945
Pittsburgh, PA 15219-2749
Postage-paid envelope required-Mail only

Arch Wood Protection
P. O. Box 930597
Atlanta, GA 31193
Phone: 770-801-6600

BANK REFERENCE

PNC Bank
Pittsburgh, PA
Telephone: 215-749-6185
Fax: 215-749-6191
Attn: Tina Granger or Rosalee Islam

FINANCIAL REFERENCE

Financial information is available on the SEC website: www.sec.gov/edgar.shtml

Dun & Bradstreet Duns No. 19-699-1582
Federal Tax ID No. 25-1588399
Pennsylvania Corporation Incorporated 12-29-88

WM WASTE MANAGEMENT	**Credit Application**	**<Enter Address Information>**

Please complete the following information for the business or person for whom credit is being evaluated. If the application is for residential service, please skip to the next page.

Business Information

Legal Business Name: Koppers Inc. EIN: _____

Trade Name or DBA: _____

Street Address (no P.O. Box): 7540 NW. Saint Helens Rd City: Portland

State / Province: Oregon Country: Multnomah Zip: 97210-3663 Phone: 503/286-3681

Fax: 503/285-2831 E-mail address: _____ SIC: _____

Type of Ownership: Sole Proprietorship ☐ Partnership ☐ LLC ☐ Corporation ☒ Nonprofit ☐ Other ☐

If Other, describe: _____ Date Business Established: 12/29/88

Type of Service: Residential ☐ Commercial ☒ Roll Off ☐ Landfill/TS ☐ Temporary Services ☐ Other ☐

Trade References: Please provide the name of companies that can serve as trade credit references, starting with most current WM experience. Please note that affiliated companies cannot be considered as trade references.

Company Name: _____ Contact Individual: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ E-mail: _____ Account #: _____

Company Name: _____ Contact Individual: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ E-mail: _____ Account #: _____

Company Name: _____ Contact Individual: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ E-mail: _____ Account #: _____

Bank Reference

Bank Name: _____ Account Number: _____

Phone: _____ Fax: _____ Contact Individual: _____

For Internal Use Only

Set Up Coordinator: _____ **CSR:** _____

Anticipated Amount (Billing Period / Job): _____ **Sales Representative:** _____

WM.	**Credit Application**	**<Enter Address Information>**

If the application is for an individual or a business that is a sole proprietorship or partnership, please complete the following information on all individuals whose credit should also be evaluated.

Name: _____ % Owned (if partnership) : _____ SSN: _____

Home Address: _____ City: _____ State: _____ Zip: _____

For partnerships, if there is an additional partner who will be responsible for payment, please complete the information below. This additional information may improve our ability to make a favorable credit decision.

Name: _____ % Owned (if partnership) : _____ SSN: _____

Home Address: _____ City: _____ State: _____ Zip: _____

Business Owner / Individual Signature:
By signing this application, you authorize Waste Management Inc. to obtain information on you (for individuals) or your business and its principal owner(s) from consumer credit bureaus and others for the purpose of extending credit and authorize any party receiving a credit inquiry from Waste Management, Inc. to release any information requested.

All Applicants:
For and in consideration of the extension of credit for rental and services, the undersigned applicant(s) agree(s) to:

- Furnish any additional financial information, including but not limited to current financial statements, personal or corporate, from time to time as requested by the credit grantor, and to inform credit grantor of any material changes in the condition of the applicant (firm).
- Pay any amounts due within stated terms for rental and services and applicant understands that credit can be suspended at the option of credit grantor for payments not so paid. All amounts are due and payable according to the remit to information designated on invoices.
- Pay a late fee on all past due amounts accruing from the date of the invoice at a rate of eighteen percent (18%) per annum or, if less, the maximum rate allowed by law.
- Pay credit grantor any handling fees associated with returned checks from applicant.
- In the event applicant fails to pay credit grantor all amounts due hereunder, credit grantor will be entitled to collect all reasonable costs of collection, attorneys fees and court costs.
- The validity, interpretation and performance of this Agreement shall be construed in accordance with the law of the state in which the Services are performed.

The above information is correct to the best of my (our) knowledge and I am (we are) authorized, in my (our) capacity, to bind my (our) firm accordingly. I (we) further represent that I (we) have the financial ability and willingness to pay all invoices within established terms.

Signature	Title (if applicable)	Date

Signature	Title (if applicable)	Date

Koppers018271

WASTE MANAGEMENT

Hillsboro Landfill
3205 SE Minter Bridge Road
Hillsboro, Oregon 97123

April 30, 2004

Permit Renewal Notice

From: ~~To: Amos Kamerer~~ T.J. Turner
Fax #: 503-285-2831

From: Kristin Castner – Waste Management
Fax #: (503) 493-7822

Total pages including cover sheet - 4
Permit # 2560

Your permit to dispose at Hillsboro Landfill is expiring or has expired. If the waste stream has *not* changed over the last year then *no* analytical will be required. However, if there is any a change, to either the waste stream or contact information, please contact me at **(503) 493-7834,** for further information regarding any paperwork and/or analytical that will be required to renew the permit for another year.

We are also in the process of updating our Service Agreements and Credit Information, if you could fill out and sign the service agreement and fax back with the renewal it would be greatly appreciated. You may have already filled out the Service Agreement and Credit information on the last renewal notification, if this is the case, please disregard and only fill out the renewal information.

Please fax renewal back to Kristin at (503) 493-7822. Thank you.

Thank you,

The credit information will come from Corporate.

Kristin Castner
Environmental Specialist
Waste Management Inc.

Hillsboro Landfill Generator's Recertification

Permit Number: 2560

	YES	NO	N/A
1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as Defined by USEPA, Canadian, Mexican and/or state/providence regulation, in the location where generated or ultimately managed?		X	
2. Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentration of Polycholrinated Biphenyl's (PCB's).		X	
3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?	X		
4. Has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?	X		
5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.209(c) or equivalent rules?	X		
6. Will all changes that in occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?	X		
7. Has the process generating the waste been changed for the above referenced profile?		X	

Generators Signature: _____ Title: GENERAL FOREMAN

Name(Type or Print): T. J. TURNER

Company Name: KOPPERS INC. Date: 5/24/04

Waste Management Decision

Precautions, Special Handling: _____

Special Waste Decisions: _____

Environmental Specialist Signature: _____ Date: _____

Please note any changes to contact names, phone or fax number in space below

_____

_____

_____

KOPPERS

FAX TRANSMITTAL

7540 N.W. Saint Helens Rd.
Portland, Oregon 97210-3663
Phone: (503) 286-3681
Fax: (503) 285-2831
Web Page: www.koppers.com

TO: Susan Koval DATE: 5/24/04

FROM: Amos TOTAL # OF PAGES: 3

Re the attached, Please Return to Kristin Castner, W.M.
via fax @ 503-493-7822 OR mail to:
Hillsboro Landfill
3205 SE Minter Bridge Road
Hillsboro, OR. 97123

Thank

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

WASTE MANAGEMENT, INC ....NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

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GENERATOR: KOPPERS, INC.

DESCRIPTION: *SOLID COAL TAR PITCH, OFF SPEC CHEMICALS, PITCH COKE*	**TONS:** *100*
☒ **SPECIAL WASTE** ☐ **CS** ☐ **CLEAN-UP MATERIAL**	
LOCATION: *PORTLAND, OREGON*	**COUNTY:** *Multnomah*
CONTACT: *AMOS KAMERER*	**PHONE:** *503-286-3681*
	FAX: *503-285-2831*

BILLING: *Landfill account BILL HAULER*	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : ***NOTE:*** *CONTROL DUST*
HAULER: WM, EMERALD SERVICES, WCMC

MK TT TyT

APPROVED: KQ *KRISTIN CASTNER* DATE: *05/13/03 3:22:22 PM*

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

Fax! 5/12/03

WASTE MANAGEMENT

Hillsboro Landfill
3205 SE Minter Bridge Road
Hillsboro, Oregon 97123

April 23, 2003

Permit Renewal Notice

From:

To: **AMOS KAMERER**
Fax #: 503-285-2831

From: Kristin Castner – Waste Management
Fax #: (503) 493-7822

Total pages including cover sheet - 4

Permit # **2560**

Your permit to dispose at Hillsboro Landfill is expiring or has expired. If the waste stream has *not* changed over the last year then *no* analytical will be required. However, if there is any a change, to either the waste stream or contact information, please contact me at **(503) 493-7834,** for further information regarding any paperwork and/or analytical that will be required to renew the permit for another year.

We are also in the process of updating our Service Agreements, if you could fill out and sign the service agreement and fax back with the renewal it would be greatly appreciated.

Please fax renewal back to Kristin at (503) 493-7822. Thank you.

Thank you,

KC

To:

Kristin Castner
Environmental Specialist
Waste Management Inc.

Hillsboro Landfill Generator's Recertification

Permit Number: 2560

	YES	NO	N/A
1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as Defined by USEPA, Canadian, Mexican and/or state/providence regulation, in the location where generated or ultimately managed?		X	
2. Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentration of Polycholrinated Biphenyl's (PCB's).		X	
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4. Has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?	X		
5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.209(c) or equivalent rules?	X		
6. Will all changes that in occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?	X		
7. Has the process generating the waste been changed for the above referenced profile?		X	

Generators Signature: _____ Title: Plant Manager

Name(Type or Print): Amos S. Kamerck

Note Change. * Company Name: Koppers Inc. Date: 5/12/03

Waste Management Decision

Precautions, Special Handling: _____

Special Waste Decisions: _____

Environmental Specialist Signature: _____ Date: _____

Please note any changes to contact names, phone or fax number in space below

Name change - from Koppers Industries, Inc to Koppers Inc.

(5)

INDUSTRIAL WASTE & DISPOSAL SERVICES AGREEMENT

COMPANY: Hillsboro Landfill, Inc.
A WASTE MANAGEMENT COMPANY

By: _____
Authorized Signature (signature also required on second page)

Name: Eric J. Weiss

Title: Landfill Sales Manager Date

CUSTOMER: Koppers Inc.

By: _____
Authorized Signature (signature also required on second page)

Name: Amos S. Kamerer 5/12/03

Title: Plant Manager Date

Effective Date of Agreement: _____

Initial Term: 12 months

This Industrial Waste & Disposal Services Agreement, consisting of the terms and conditions set forth herein, and Exhibit A, and/or Confirmation Letter(s) and the Profile Sheet(s) entered into from and after the date hereof from time to time (all of the foregoing being collectively referred to as the "Agreement"), is made as of the Effective Date shown above by and between the Customer named above, on its and its subsidiaries and affiliates behalf (collectively, "Customer") and the Waste Management entity named above ("the Company").

TERMS AND CONDITIONS

1. SERVICES PROVIDED. The Company will provide Customer with collection, management, transportation, disposal, treatment, and recycling services ("Services") for Customer's non-hazardous solid waste, special waste, and/or hazardous waste (collectively "Industrial Waste") as described on Exhibit A and/or Confirmation Letter(s) and/or applicable Profile Sheets. **Solid Waste** means garbage, refuse and rubbish including those which are recyclable but excluding Special Waste and Hazardous Waste. **Special Waste** includes polychlorinated biphenyl ("PCB") wastes, industrial process wastes, asbestos containing material, petroleum contaminated soils, treated/decharacterized wastes, incinerator ash, medical wastes, demolition debris and other materials requiring special handling in accordance with applicable federal, state, provincial or local laws or regulations. **Hazardous Waste** means any toxic or radioactive substances, as such terms are defined by applicable federal, state, provincial or local laws or regulations. When Company handles special or hazardous waste for Customer, Customer will provide Company with a Generator's Waste Profile Sheet ("Profile Sheet") describing all special or hazardous waste, and provide a representative sample of such waste on request. In the event this Agreement includes transportation by Company, Customer shall, at the time of tender, provide to Company accurate and complete documents, shipping papers or manifests as are required for the lawful transfer of the special or hazardous waste under all applicable federal, state or local laws or regulations. Tender of delivery shall be considered nonconforming if not in accordance with this Paragraph.

2. CUSTOMER WARRANTIES. Customer hereby represents and warrants that all waste material delivered by Customer to Company shall be in accordance with waste descriptions given in this Agreement and shall not be or contain any Nonconforming Waste. "Nonconforming Waste" means: (a) non-hazardous Solid Waste that contains regulated Special Waste or Hazardous Waste; (b) waste that is not in conformance with the description of the waste in Exhibit A, the Confirmation Letter(s) or the Profile Sheet incorporated herein; (c) waste that is or contains any infectious waste, radioactive, volatile, corrosive, flammable, explosive, biomedical, biohazardous material, regulated medical or hazardous waste or toxic substances, as defined pursuant to or listed or regulated under applicable federal, state or local law, except as stated on the Profile Sheet or Confirmation Letter; or (d) waste that is prohibited from being received, managed or disposed of at the designated disposal facility by federal, state or local law, regulation, rule, code, ordinance, order, permit or permit condition. Customer (including its subcontractors) represents and warrants that it will comply with all applicable laws, ordinances, regulations, orders, permits or other legal requirements applicable to the Industrial Waste.

3. TERM OF AGREEMENT; RIGHT OF FIRST REFUSAL. The Initial Term of this Agreement shall be 12 months, commencing on the Effective Date set forth above. This Agreement shall automatically renew thereafter for additional terms of twelve (12) months each ("Renewal Term") unless either party gives to the other party written notice of termination at least ninety (90) days prior to the termination of the then-existing term; provided however, that the terms and conditions of this Agreement shall remain in full force and effect, in accordance with its terms, with respect to any uncompleted or unfinished Service provided for in an Exhibit A, Confirmation Letter and/or Profile Sheet until such Service is completed. Customer grants to Company a right of first refusal to match any offer which Customer receives or intends to make after the completion of any Term of this Agreement relating to any services provided hereunder and further agrees to give Company prompt written notice of any such offer and a reasonable opportunity to respond to it.

4. INSPECTION; REJECTION OF WASTE. Title to and liability for Nonconforming Waste shall remain with Customer at all times. Company shall have the right to inspect, analyze or test any waste delivered by Customer. If Customer's Industrial Waste is Nonconforming Waste, Company can, at its option, reject Nonconforming Waste and return it to Customer or require Customer to remove and dispose of the Nonconforming Waste at Customer's expense. Customer shall indemnify, hold harmless (in accordance with Section 9) and pay or reimburse Company for any and all costs, damages and/or fines incurred as a result of or relating to Customer's tender or delivery of Nonconforming Waste or other failure to comply or conform to this Agreement, including costs of inspection, testing and analysis.

5. SPECIAL HANDLING; TITLE. If Company elects to handle, rather than reject, Nonconforming Waste, Company shall have the right to manage the same in the manner deemed most appropriate by Company given the characteristics of the Nonconforming Waste. Company may assess and Customer shall pay additional fees associated with delivery of Nonconforming Waste, including, but not limited to, special handling or disposal charges, and costs associated with different quantities of waste, different delivery dates, modifications in operations, specialized equipment, and other operational, environmental, health, safety or regulatory requirements. Title to and ownership of acceptable Industrial Waste shall transfer to Company upon its final acceptance of such waste.

6. COMPANY WARRANTIES. Company hereby represents and warrants that: (a) Company will manage the Industrial Waste in a safe and workmanlike manner in full compliance with all valid and applicable federal, state and local laws, ordinances, orders, rules and regulations; and (b) it will use disposal facilities that have been issued permits, licenses, certificates or ap-

provals required by valid and applicable laws, ordinances and regulations necessary to allow the facility to accept, treat and/or dispose of Industrial Waste. Except as provided herein, Company makes no other warranties and hereby disclaims any other warranty, whether implied or statutory.

7. LIMITED LICENSE TO ENTER. When a Customer is transporting Industrial Waste to a Company facility, Customer and its subcontractors shall have a limited license to enter a disposal facility for the sole purpose of offloading Industrial Waste at an area designated, and in the manner directed, by Company. Customer shall, and shall ensure that its subcontractors, comply with all rules and regulations of the facility, as amended. Company may reject Industrial Waste, deny Customer or its subcontractors entry to its facility and/or terminate this Agreement in the event of Customer's or its subcontractors' failure to follow such rules and regulations.

8. CHARGES AND PAYMENTS. Customer shall pay the rates set forth on Exhibit A or a Confirmation Letter, which may be modified as provided in this Agreement. The rates may be adjusted by Company to account for: any increase in disposal or fuel costs; any change in the composition of the Industrial Waste; increased costs due to uncontrollable circumstances, including, without limitation, changes in local, state or federal laws or regulations, imposition of taxes, fees or surcharges and acts of God such as floods, fires, etc. Company may also increase the charges to reflect increases in the Consumer Price Index for the municipal or regional area in which the Services are rendered. Increases in charges for reasons other than as provided above require the consent of Customer which may be evidenced verbally, in writing or by the actions and practices of the parties. All rate adjustments as provided above and in Paragraph 5 shall take effect upon notification from Company to Customer. Customer shall pay the rates in full within 30 days of receipt of each invoice from Company. Customer shall pay a late fee on all past due amounts accruing from the date of the invoice at a rate of eighteen percent (18%) per annum or, if less, the maximum rate allowed by law.

9. INDEMNIFICATION. The Company agrees to indemnify, defend and save Customer harmless from and against any and all liability (including reasonable attorneys fees) which Customer may be responsible for or pay out as a result of bodily injuries (including death), property damage, or any violation or alleged violation of law, to the extent caused by Company's breech of this Agreement or by any negligent act, negligent omission or willful misconduct of the Company or its employees, which occurs (1) during the collection or transportation of Customer's Industrial Waste by Company, or (2) as a result of the disposal of Customer's Industrial Waste, after the date of this Agreement, in a facility owned by a subsidiary or affiliate of Waste Management, Inc., provided that the Company's indemnification obligations will not apply to occurrences involving Nonconforming Waste.

Customer agrees to indemnify, defend and save the Company harmless from and against any and all liability (including reasonable attorneys fees) which the Company may be responsible for or pay out as a result of bodily injuries (including death), property damage, or any violation or alleged violation of law to the extent caused by Customer's breach of this Agreement or by any negligent act, negligent omission or willful misconduct of the Customer or its employees, agents or contractors in the performance of this Agreement or Customer's use, operation or possession of any equipment furnished by the Company.

Neither party shall be liable to the other for consequential, incidental or punitive damages arising out of the performance of this Agreement.

10. UNCONTROLLABLE CIRCUMSTANCES. Except for the obligation to make payments hereunder, neither party shall be in default for its failure to perform or delay in performance caused by events beyond its reasonable control, including, but not limited to, strikes, riots, imposition of laws or governmental orders, fires, acts of God, and inability to obtain equipment, permit changes and regulations, restrictions (including land use) therein, and the affected party shall be excused from performance during the occurrence of such events.

11. ASSIGNMENT. This Agreement shall be binding on and shall inure to the benefit of the parties and their respective successors and assigns.

12. ENTIRE AGREEMENT. This Agreement represents the entire understanding and agreement between the parties relating to the management of waste and supersedes any and all prior agreements, whether written or oral, between the parties regarding the same; provided that, the terms of any national service agreement between the parties shall govern over any inconsistent terms herein.

13. TERMINATION; LIQUIDATED DAMAGES. Company may immediately terminate this Agreement, (a) in the event of Customer's breach of any term or provision of this Agreement, including failure to pay on a timely basis or (b) if Customer becomes insolvent, the subject of an order for relief in bankruptcy, receivership, reorganization dissolution, or similar law, or makes an assignment for the benefit of its creditors or if Company deems itself insecure as to payment ("Default"). Notice of termination shall be in writing and deemed given when delivered in person or by certified mail, postage prepaid, return receipt requested. In the event Customer terminates this Agreement prior to the expiration of any Initial or Renewal Term for any reason other than as provided herein, or in the event Company terminates this Agreement for Customer's Default, liquidated damages in addition to the Company's legal fees shall be paid and calculated as follows: 1) if the remaining Initial Term under this Agreement is six or more months, Customer shall pay its most recent monthly charges multiplied by six; 2) if the remaining Initial Term under this Agreement is less than six months, Customer shall pay its most recent monthly charges multiplied by the number of months remaining in the Term; 3) if the remaining Renewal Term under this Agreement is three or more months, Customer shall pay its most recent monthly charges multiplied by three; or 4) if the remaining Renewal Term under this Agreement is less than three months, Customer shall pay its most recent monthly charges multiplied by the number of months remaining in the Renewal Term. Customer acknowledges that the actual damage to Company in the event of termination is difficult to fix or prove, and the foregoing liquidated damages amount is reasonable and commensurate with the anticipated loss to Company resulting from such termination and is an agreed upon fee and is not imposed as a penalty. Collection of liquidated damages by Company shall be in addition to any rights or remedies available to Company under this Agreement or at common law.

14. MISCELLANEOUS. (a) The prevailing party will be entitled to recover reasonable fees and court costs, including attorneys' fees, in interpreting or enforcing this Agreement. In the event Customer fails to pay Company all amounts due hereunder, Company will be entitled to collect all reasonable collection costs or expenses, including reasonable attorneys fees, court costs or handling fees for returned checks from Customer; (b) The validity, interpretation and performance of this Agreement shall be construed in accordance with the law of the state in which the Services are performed; (c) If any provision of this Agreement is declared invalid or unenforceable, then such provision shall be deemed severable from and shall not affect the remainder of this Agreement, which shall remain in full force and effect, (d) Customer's payment obligation for Services and the Warranties and Indemnification made by each party shall survive termination of this Agreement.

Agreed & Accepted

COMPANY: WASTE MANAGEMENT

Signed: _____

CUSTOMER

Signed: _____

WASTE MANAGEMENT, INC ....NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

EXPIRES: 6/24/03

GENERATOR: KOPPERS INDUSTRIES, INC.

DESCRIPTION:*SOLID COAL TAR PITCH AND OFF SPEC CHEMICALS, PITCH COKE*	TONS:*100*
☒SPECIAL WASTE ☐CS ☐CLEAN-UP MATERIAL	
LOCATION: *PORTLAND, OREGON*	COUNTY:*Multnomah*
CONTACT: *AMOS KAMERER*	PHONE: *503-286-3681*

BILLING:*Landfill account BILL HAULER*	PO#: *N/A*	JOB#: *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : *NOTE: CONTROL DUST*
HAULER: WASTE MANAGEMENT, EMERALD SERVICES, WEST COAST MARINE CLEANING

DL MK

APPROVED: KC *KRISTIN CASTNER* DATE: *11/08/02 1:45:25 PM*

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

KOPPERS
INDUSTRIES

7540 NW Saint Helens Road
Portland, Oregon 97210-3663
Telephone: 503-286-3681
Fax: 503-285-2831
E-mail: kamereras@koppers.com

To:	Kristin Castner	Fax #:	503-493-7822
	Hillsboro Landfill, Inc.		
Date:	11/8/02	# Of Pages:	3
From:	Amos Kamerer		
Subject:	Permit # 2560 Revision		

Confirming our conversation of yesterday, I would like to add Pitch Coke to subject permit for non-hazardous materials. A copy of the TCLP results on this material, is attached.

As a reminder, please bill the hauler for the applicable the fees; which could be any one of the following, all of which have accounts with you:

Waste Management
Emerald Services
West Coast Marine

Let me know if you have nay questions or need anything else.

Thanks,

Amos

CERTIFICATE OF ANALYSIS

CLIENT: Koppers Industries, Inc.
7540 NW St. Helens Road
Portland OR, 97210-3663
ATTN: Amos Kamerer

PROJECT NAME: Pitch Coke: TCLP Test

PHONE: (503) 286-3681
FAX: (503) 285-2831

SUBMITTED: 09/18/02 14:06

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
2091802-01	Tank 65 Pitch Coke	09/18/2002	0000	Other(Sld)

REPORT DATE: 10/14/02 14:14 REPORT NUMBER: 2091802

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
2091802-01	**SAMPLE ID: Tank 65 Pitch Coke**						
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.010	GW	09/26/2002 14:39
BARIUM, TCLP - ICP		BARIUM	1.6	mg/L	0.020	GW	09/26/2002 14:39
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	GW	09/26/2002 14:39
CHROMIUM, TCLP - ICP		CHROMIUM	ND	mg/L	0.010	GW	09/26/2002 14:39
LEAD, TCLP - ICP		LEAD	0.29	mg/L	0.040	GW	09/26/2002 14:39
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	GW	09/26/2002 14:39
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	GW	09/26/2002 14:39
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP - CVAA	EPA 245.1/7470A	MERCURY	ND	mg/L	0.0003	GW	09/27/2002 06:48
Volatile Organics by Gas Chromatography/Mass Spectroscopy							
TCLP VOLATILES	EPA 8260	BENZENE	ND	ug/L	0.1	PA	09/20/2002 17:23
		CARBON TETRACHLORIDE	ND	ug/L	0.1		
		CHLOROBENZENE	ND	ug/L	0.1		
		CHLOROFORM	0.9	ug/L	0.1		
		1,4-DICHLOROBENZENE	ND	ug/L	0.1		
		1,2-DICHLOROETHANE	ND	ug/L	0.1		
		1,1-DICHLOROETHENE	ND	ug/L	0.1		
		METHYL ETHYL KETONE	ND	ug/L	0.6		
		TETRACHLOROETHYLENE	ND	ug/L	0.1		
		TRICHLOROETHENE	ND	ug/L	0.1		
		VINYL CHLORIDE	ND	ug/L	0.1		
		Surrogate: Dibromofluoromethane	98.3 %	%RECOVERY	50-150		
		Surrogate: Fluorobenzene	98.9 %	%RECOVERY	50-150		
		Surrogate: Chlorobenzene-d5	103 %	%RECOVERY	50-150		
		Surrogate: 1,4-Dichlorobenzene-d4	89.8 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
TCLP ACID SEMIVOL	EPA 8270	O-CRESOL (2-METHYLPHENOL)	ND	ug/L	11	RVM	10/02/2002 14:25
		M-CRESOL (3-METHYLPHENOL)	ND	ug/L	11		
		P-CRESOL (4-METHYLPHENOL)	ND	ug/L	11		

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Authorized for Release By: David T. Back - Quality/Systems Manager

CERTIFICATE OF ANALYSIS

COPY

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
2091802-01	**SAMPLE ID: Tank 65 Pitch Coke**						
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
TCLP ACID SEMIVOL	EPA 8270	PENTACHLOROPHENOL	ND	ug/L	11	RVM	10/02/2002 14:25
		2,4,5-TRICHLOROPHENOL	ND	ug/L	11		
		2,4,6-TRICHLOROPHENOL	ND	ug/L	11		
		Surrogate: Phenol-d6	31.2 %	%RECOVERY	50-150		
		Surrogate: 2,4,6-Tribromophenol	94.6 %	%RECOVERY	50-150		
TCLP B/N SEMIVOL		2,4-DINITROTOLUENE	ND	ug/L	210	RVM	10/02/2002 14:04
		HEXACHLOROBENZENE	ND	ug/L	110		
		HEXACHLOROBUTADIENE	ND	ug/L	110		
		HEXACHLOROETHANE	140	ug/L	110		
		NITROBENZENE	ND	ug/L	110		
		Surrogate: 2-Fluorobiphenyl	86.0 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	85.3 %	%RECOVERY	50-150		
		Surrogate: p-Terphenol-d14	82.9 %	%RECOVERY	50-150		

This report may not be reproduced except in full.

Authorized for Release By:David T. Back - Quality/Systems Manager

COLUMBIA INSPECTION, INC 7133 N. Lombard, Portland, OR 97203 Phone:(503) 286-9464 Fax:(503) 286-5355 E-mail:lab@ColumbiaInspection.com

WASTE MANAGEMENT, INC ....NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

EXPIRES: 6/24/03

GENERATOR: KOPPERS INDUSTRIES, INC.	
DESCRIPTION: *SOLID COAL TAR PITCH AND OFF SPEC CHEMICALS*	**TONS:** *100*
☒ **SPECIAL WASTE** ☐ **CS** ☐ **CLEAN-UP MATERIAL**	
LOCATION: *PORTLAND, OREGON*	**COUNTY:** *Multnomah*
CONTACT: *AMOS KAMERER*	**PHONE:** *503-286-3681*

BILLING: *Landfill account WASTE MANAGEMENT*	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : ***NOTE:*** *CONTROL DUST*
HAULER: *WASTE MANAGEMENT*

DL **MK**

APPROVED: KQ 503/493 - 7834 *KRISTIN CASTNER* DATE: ***06/24/02 4:05:37 PM***

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

Hillsboro Landfill Generator's Recertification

Permit Number: 2560

	YES	NO	N/A
1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as Defined by USEPA, Canadian, Mexican and/or state/providence regulation, in the location where generated or ultimately managed?		X	
2. Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentration of Polycholrinated Biphenyl's (PCB's).		X	
3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?	X		
4. Has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?	X		
5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.209(c) or equivalent rules?	X		
6. Will all changes that in occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?	X		
7. Has the process generating the waste been changed for the above referenced profile?		X	

Generators Signature: _____ Title: Plant Manager

Name(Type or Print): Anna S. Kamerer

Company Name: Koppers Industries, Inc. Date: 6/12/02

Waste Management Decision

Precautions, Special Handling: _____

Special Waste Decisions: _____

Environmental Specialist Signature: _____ Date: _____

Current MSDS is Attached.

WASTE MANAGEMENT

Hillsboro Landfill
3205 SE Minter Bridge Road
Hillsboro, Oregon 97123

May 29, 2002

Permit Renewal Notice

To: Amos Kamerer
Fax #: 503-285-2831

From: Kristin Castner – Waste Management
Fax #: (503) 493-7822

Total pages including cover sheet - 2

Permit # 2500

Your permit to dispose at Hillsboro Landfill is expiring or has expired. If the waste stream has *not* changed over the last year then *no* analytical will be required. However, if there is any a change, to either the waste stream or contact information, please contact me at **(503) 493-7834**, for further information regarding any paperwork and/or analytical that will be required to renew the permit for another year.

Sincerely,

Kcastner

Kristin Castner
Environmental Specialist
Waste Management Inc.

WASTE MANAGEMENT, INC ....NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

EXPIRES: 6/12/02

GENERATOR: KOPPERS INDUSTRIES, INC.	
DESCRIPTION: *SOLID COAL TAR PITCH AND OFF SPEC CHEMICALS*	**TONS:** *100*
☒ **SPECIAL WASTE** ☐ **CS** ☐ **CLEAN-UP MATERIAL**	
LOCATION: *PORTLAND, OREGON*	**COUNTY:** *Multnomah*
CONTACT: *AMOS KAMERER*	**PHONE:** *503-286-3681*

BILLING: *Landfill account WASTE MANAGEMENT*	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : *NOTE: CONTROL DUST*
HAULER: WASTE MANAGEMENT

DL **MK**

APPROVED: # 503 - 493 - 7834 *KRISTIN CASTNER* DATE: *04/02/01 11:25:39 AM*

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-360 FOR EACH LOAD OF SPECIAL WASTE

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

6Y0 -8755 X 231

USA WASTE SERVICES, INC.... NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

EXPIRES: 6/12/99

GENERATOR: KOPPERS INDUSTRIES, INC.

DESCRIPTION: *COAL TAR PITCH AND REFINED TARS*	**TONS:** *100*
☒ **SPECIAL WASTE** ☐ **PCS**	
LOCATION: *PORTLAND, OREGON*	**COUNTY:** *Multnomah*
CONTACT: *AMOS KAMERER*	**PHONE:** *286-3681*

BILLING: *Landfill account MDC 12702*	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : *NOTE:*

APPROVED: KQ ***KRISTIN CLAYTON*** DATE: ***06/12/98 3:32:47 PM***

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

USA WASTE SERVICES, INC

HAZARDOUS WASTE IS STRICTLY PROHIBITED

WASTE MANAGEMENT

GRAHAM ROAD LANDFILL, HILLSBORO LANDFILL, WASCO LANDFILL, WENATCHEE LANDFILL, RIVERBEND LANDFILL

WASTE DISPOSAL AGREEMENT
REQUEST FOR SERVICES, TERMS AND CONDITIONS

✓ DESCRIBE WASTE TYPE:_____

✓ DESCRIBE HOW WASTE WAS GENERATED:_____

✓ WHAT PERSON OR ENTITY OWNS OR CONTROLS THE WASTE? _____

✓ WHO CAN WE CONTACT ABOUT THE WASTE? (name/company/full address/voice/fax)_____

_____

_____

✓ WHERE WAS THE WASTE GENERATED? (site name/address/city/state/county) _____

_____

✓ QUANTITY OF WASTE? (both estimated weight and volume)_____

✓ DOES THE WASTE PRODUCE ANY ODOR? PLEASE DESCRIBE:_____

✓ DESCRIBE THE FREQUENCY OF TRANSPORT TO THE SITE (One Time, On-Going):_____

✓ IS THE WASTE CLASSIFIED AS HAZARDOUS, DANGEROUS OR TOXIC BY FEDERAL STATE OR LOCAL REGULATION:_____

✓ WHO WILL TRANSPORT THE WASTE TO LANDFILL? (name, company, phone, fax)_____

✓ _____

✓ TRANSPORT VIA: _____roll-off box _____dump truck _____end dump _____drums _____pickup / trailer

✓ PAYMENT INFORMATION: _____LANDFILL ACCOUNT _____CASH _____BUSINESS CHECK _____VISA/MASTERCARD

For Landfill Account Provide The Following: Billing Name _____

Account # _____ **P.O. #** _____

✓ DESIGNATE THE LANDFILL WHERE WASTE WILL BE DISPOSED: (CIRCLE ONE)

GRAHAM ROAD LANDFILL, HILLSBORO LANDFILL, WASCO LANDFILL, WENATCHEE LANDFILL, RIVERBEND LANDFILL

APPROVAL INFORMATION

FAX COMPLETED FORM, AS SIGNED ON SECOND PAGE, AND LABORATORY RESULTS AND CHAIN OF CUSTODY
TO **KRISTIN CLAYTON** AT: **OREGON** (503) 648-2490 **WASHINGTON** (800) 583-5263

FOR INFORMATION ON CHARACTERIZING YOUR WASTE CONTACT KRISTIN CLAYTON at:
OREGON - (503) 844-9597 WASHINGTON - (800) 685-8001

TERMS AND CONDITIONS OF DISPOSAL

1. **ACCEPTABLE WASTE.** Customer shall deliver and Company shall accept for disposal only Acceptable Waste. Customer shall deliver the full quantity of Acceptable Waste generated, handled and/or collected by Customer as estimated above. Acceptable Waste means and includes only such waste as is described above and which is approved and permitted for disposal at the Designated Landfill and shall not include any Excluded Waste. As used herein, Excluded Waste means waste that: (a) is not in conformance with the description of the waste set forth above; (b) is or contains any infectious waste, or radioactive, volatile, corrosive, highly flammable, explosive, biomedical, biohazardous material or hazardous, dangerous, or toxic substances, as defined pursuant to or listed or regulated under applicable federal, state or local law above regulated levels permitted for disposal as the Designated Landfill; (c) is prohibited from being received or disposed of at the Designated Landfill by federal, state or local law, regulation, rule, code, ordinance, order, permit or permit condition; (d) Company reasonably believes would, as a result of or upon disposal, be a violation of local, state or federal law, regulation or ordinance, including land use restrictions or conditions applicable to the Designated Landfill; or (e) in Company's opinion would present a significant risk to human health or the environment, cause a nuisance or otherwise create or expose Company or Customer to potential liability.

2. **REPRESENTATIONS & WARRANTIES.** Customer represents and warrants that: (a) the description of the waste set forth on the first page hereof is true and correct in all material respects; (b) all waste delivered to the Designated Landfill by Customer shall be Acceptable Waste as defined above and shall not be or contain Excluded Waste; (c) Customer shall, and shall cause any carrier with which it contracts to, handle and transport the waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations; and (d) Customer has advised its drivers of Company's prohibition on delivery of Excluded Waste, of the definitions and listing of hazardous waste and hazardous substances under applicable federal and state law and regulations and of the definition of Acceptable Waste herein. Company represents and warrants that it shall dispose of the Acceptable Waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations.

3. **TITLE; INSPECTION, REJECTION OF WASTE.** Title to and ownership of all Acceptable Waste shall transfer to Company upon its final acceptance of Acceptable Waste. Title to, ownership of and liability for Excluded Waste shall at all times remain with Customer. Company may inspect the waste delivered by Customer and reject Excluded Waste. If, following acceptance of the waste delivered by Customer, such waste is found to be or contain Excluded Waste, in whole or in part, Company may revoke its acceptance of all such waste. Revocation of acceptance by Company shall operate to re-vest all incidents of ownership in Customer at the time revocation is communicated, either orally or in writing. Customer shall remove Excluded Waste, at its sole cost and expense, from the possession of Company promptly, but in no event later than 7 days, after notice of rejection or revocation of acceptance. Company shall have the right to refuse to accept or to reject any Acceptable Waste in the event of Customer's failure to pay disposal fees owed by Customer.

4. **INDEMNITY.** Each party hereto (the "Indemnitor") hereby agrees to indemnify, hold harmless and defend the other party, and its owners, officers, directors, employees and agents (collectively, the "Indemnitees"), from and against any and all liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, judgments and costs and expenses incidental thereto, including attorneys' fees (collectively, "Damages"), which any or all of the Indemnitees may hereafter suffer, incur, be responsible for or pay out as a result of personal injuries, property damage, or contamination of or adverse effects on the environment, to the extent caused by, or arising from or in connection with the breach of any representations or warranties of the Indemnitor set forth in this Agreement, or any negligent actions or omissions or willful misconduct of the Indemnitor, its employees, officers, owners, directors or agents, or the violation of any law, ordinance or regulation, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq., as amended. Such indemnity shall exclude Damages to the extent they arise as a result of any negligent actions or omissions or willful misconduct of the Indemnitees or their employees, officers, owners, directors or agents. The indemnification obligation hereunder shall arise only in excess of any available and collectible insurance proceeds and the Indemnitor shall be liable hereunder to pay only its share of the amount of Damages, if any, that exceeds the total amount that all insurance has paid for the Damages, plus the total of all deductible and self-insured expenses paid under all insurance policies. The obligations in this Section 4 shall survive the performance and termination of this Agreement.

5. **UNCONTROLLABLE CIRCUMSTANCES; TERMINATION.** Except for the obligation to pay fees for disposal of Acceptable Waste accepted at the Designated Landfill, the performance of this Agreement may be discontinued or temporarily suspended by either party in the event the delivery of waste by Customer, or the disposal of waste by Company are prevented by a cause or causes beyond the reasonable control of either party. Such causes shall include, but not be limited to, acts of God, acts of war, riot, fire, explosion, accident, flood or sabotage, governmental laws (including nuisance), permit conditions, regulations, restrictions (including land use), condition of the waste or injunction. Company may immediately terminate disposal services upon written notice to Customer in the event Customer breaches any term, provision or obligation under this Agreement. Customer shall be liable for and shall pay to Company all costs and losses incurred by Company as a result of or relating to any such termination.

6. **MISCELLANEOUS.** This Agreement shall be governed by the laws of the state in which the Designated Landfill is located. Every provision of this Agreement shall be severable. This Agreement represents the entire understanding and Agreement between the parties relating to the disposal of waste. No representations, statements or Agreements, unless agreed to by the parties in writing, shall modify, change, amend or otherwise affect the obligations undertaken in this Agreement. No waiver by either party of any one or more defaults or breaches by the other in the performance of this Agreement shall operate or be construed as a waiver of any future defaults or breaches. Customer may not assign this Agreement without the prior written consent of Company. This Agreement shall be binding upon and shall inure to the benefit of the parties' successors and assigns.

CERTIFICATION

THIS DOCUMENT MUST BE SIGNED BY THE GENERATOR OR GENERATOR'S AUTHORIZED REPRESENTATIVE, AND INDICATES A FIRST HAND KNOWLEDGE OF THE WASTE'S CHARACTERISTICS. BY SIGNING BELOW, GENERATOR CERTIFIES THE TRUTH OF THE INFORMATION ON THE FIRST PAGE HEREOF AND THAT GENERATOR HAS READ AND AGREES TO THE TERMS AND CONDITIONS SET FORTH ON THE FIRST AND SECOND PAGES HEREOF WHICH ARE INCORPORATED HEREIN.

DATE: _____ CUSTOMER / GENERATOR: _____

PRINTED NAME: _____ SIGNATURE. _____

KOPPERS INDUSTRIES

FAX TRANSMITTAL

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663
Telephone: 503-286-3681
Fax: 503-285-2831

Tele # 978-0200 (USA Waste)

TO: Cory Fax # 285-3987 DATE: 6/12/98

FROM: Amos Famuyiwa TOTAL # OF PAGES: 4

Permit info is attached

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

USA WASTE SERVICES COMPANIES

GRAHAM ROAD LANDFILL, HILLSBORO LANDFILL, WASCO LANDFILL, RIVERBEND LANDFILL

WASTE DISPOSAL AGREEMENT
REQUEST FOR SERVICES, TERMS AND CONDITIONS

✓ DESCRIBE WASTE TYPE: Coal Tar Pitch and Refined Tars

✓ DESCRIBE HOW WASTE WAS GENERATED: spillage

✓ WHAT PERSON OR ENTITY OWNS OR CONTROLS THE WASTE? Koppers Industries, Inc.

✓ WHO CAN WE CONTACT ABOUT THE WASTE? (name/company/full address/voice/fax)

Amos Kamerer or T.J. Turner @ Koppers Industries, Inc.

7540 NW Saint Helens Rd. Portland, OR 97210 PHONE 286-3681 FAX 285-2831

✓ WHERE WAS THE WASTE GENERATED? (site name/address/city/state/county) Koppers Industries, Inc.

7540 N.W. Saint Helens Rd., Portland Or. 97210

✓ QUANTITY OF WASTE? (both estimated weight and volume) Varies - MAX 100 Tons per year

✓ DOES THE WASTE PRODUCE ANY ODOR? PLEASE DESCRIBE: very little, but smells like Coal Tar

✓ DESCRIBE THE FREQUENCY OF TRANSPORT TO THE SITE (One Time, On-Going): Varies - twice per year

✓ IS THE WASTE CLASSIFIED AS HAZARDOUS, DANGEROUS OR TOXIC BY FEDERAL STATE OR LOCAL REGULATION: NO

✓ WHO WILL TRANSPORT THE WASTE TO LANDFILL? (name, company, phone, fax) USA Waste Services Companies

✓ Portland Division PO BOX 11229 Portland, Or Phone 285-0571 Fax 285-3987

✓ TRANSPORT VIA: X roll-off box ____dump truck ____end dump ____drums ____pickup / trailer

✓ PAYMENT INFORMATION: X LANDFILL ACCOUNT ____CASH ____BUSINESS CHECK ____VISA/MASTERCARD

For Landfill Account Provide The Following: Billing Name USA Waste Services Companies

Account # 12702 P.O. # Verbal

✓ DESIGNATE THE LANDFILL WHERE WASTE WILL BE DISPOSED: (CIRCLE ONE)

GRAHAM ROAD LANDFILL, (HILLSBORO LANDFILL,) WASCO LANDFILL, RIVERBEND LANDFILL

APPROVAL INFORMATION

FAX COMPLETED FORM, AS SIGNED ON SECOND PAGE, AND LABORATORY RESULTS AND CHAIN OF CUSTODY TO KRISTIN CLAYTON AT: OREGON (503) 648-2490 WASHINGTON (800) 583-5263

FOR INFORMATION ON CHARACTERIZING YOUR WASTE CONTACT KRISTIN CLAYTON at: OREGON - (503) 844-9597 WASHINGTON - (800) 685-8001

TERMS AND CONDITIONS OF DISPOSAL

1. **ACCEPTABLE WASTE.** Customer shall deliver and Company shall accept for disposal only Acceptable Waste. Customer shall deliver the full quantity of Acceptable Waste generated, handled and/or collected by Customer as estimated above. Acceptable Waste means and includes only such waste as is described above and which is approved and permitted for disposal at the Designated Landfill and shall not include any Excluded Waste. As used herein, Excluded Waste means waste that: (a) is not in conformance with the description of the waste set forth above; (b) is or contains any infectious waste, or radioactive, volatile, corrosive, highly flammable, explosive, biomedical, biohazardous material or hazardous, dangerous, or toxic substances, as defined pursuant to or listed or regulated under applicable federal, state or local law above regulated levels permitted for disposal as the Designated Landfill; (c) is prohibited from being received or disposed of at the Designated Landfill by federal, state or local law, regulation, rule, code, ordinance, order, permit or permit condition; (d) Company reasonably believes would, as a result of or upon disposal, be a violation of local, state or federal law, regulation or ordinance, including land use restrictions or conditions applicable to the Designated Landfill; or (e) in Company's opinion would present a significant risk to human health or the environment, cause a nuisance or otherwise create or expose Company or Customer to potential liability.

2. **REPRESENTATIONS & WARRANTIES**. Customer represents and warrants that: (a) the description of the waste set forth on the first page hereof is true and correct in all material respects; (b) all waste delivered to the Designated Landfill by Customer shall be Acceptable Waste as defined above and shall not be or contain Excluded Waste; (c) Customer shall, and shall cause any carrier with which it contracts to, handle and transport the waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations; and (d) Customer has advised its drivers of Company's prohibition on delivery of Excluded Waste, of the definitions and listing of hazardous waste and hazardous substances under applicable federal and state law and regulations and of the definition of Acceptable Waste herein. Company represents and warrants that it shall dispose of the Acceptable Waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations.

3. **TITLE; INSPECTION, REJECTION OF WASTE**. Title to and ownership of all Acceptable Waste shall transfer to Company upon its final acceptance of Acceptable Waste. Title to, ownership of and liability for Excluded Waste shall at all times remain with Customer. Company may inspect the waste delivered by Customer and reject Excluded Waste. If, following acceptance of the waste delivered by Customer, such waste is found to be or contain Excluded Waste, in whole or in part, Company may revoke its acceptance of all such waste. Revocation of acceptance by Company shall operate to re-vest all incidents of ownership in Customer at the time revocation is communicated, either orally or in writing. Customer shall remove Excluded Waste, at its sole cost and expense, from the possession of Company promptly, but in no event later than 7 days, after notice of rejection or revocation of acceptance. Company shall have the right to refuse to accept or to reject any Acceptable Waste in the event of Customer's failure to pay disposal fees owed by Customer.

4. **INDEMNITY**. Each party hereto (the "Indemnitor") hereby agrees to indemnify, hold harmless and defend the other party, and its owners, officers, directors, employees and agents (collectively, the "Indemnitees"), from and against any and all liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, judgments and costs and expenses incidental thereto, including attorneys' fees (collectively, "Damages"), which any or all of the Indemnitees may hereafter suffer, incur, be responsible for or pay out as a result of personal injuries, property damage, or contamination of or adverse effects on the environment, to the extent caused by, or arising from or in connection with the breach of any representations or warranties of the Indemnitor set forth in this Agreement, or any negligent actions or omissions or willful misconduct of the Indemnitor, its employees, officers, owners, directors or agents, or the violation of any law, ordinance or regulation, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq., as amended. Such indemnity shall exclude Damages to the extent they arise as a result of any negligent actions or omissions or willful misconduct of the Indemnitees or their employees, officers, owners, directors or agents. The indemnification obligation hereunder shall arise only in excess of any available and collectible insurance proceeds and the Indemnitor shall be liable hereunder to pay only its share of the amount of Damages, if any, that exceeds the total amount that all insurance has paid for the Damages, plus the total of all deductible and self-insured expenses paid under all insurance policies. The obligations in this Section 4 shall survive the performance and termination of this Agreement.

5. **UNCONTROLLABLE CIRCUMSTANCES; TERMINATION**. Except for the obligation to pay fees for disposal of Acceptable Waste accepted at the Designated Landfill, the performance of this Agreement may be discontinued or temporarily suspended by either party in the event the delivery of waste by Customer, or the disposal of waste by Company are prevented by a cause or causes beyond the reasonable control of either party. Such causes shall include, but not be limited to, acts of God, acts of war, riot, fire, explosion, accident, flood or sabotage, governmental laws (including nuisance), permit conditions, regulations, restrictions (including land use), condition of the waste or injunction. Company may immediately terminate disposal services upon written notice to Customer in the event Customer breaches any term, provision or obligation under this Agreement. Customer shall be liable for and shall pay to Company all costs and losses incurred by Company as a result of or relating to any such termination.

6. **MISCELLANEOUS**. This Agreement shall be governed by the laws of the state in which the Designated Landfill is located. Every provision of this Agreement shall be severable. This Agreement represents the entire understanding and Agreement between the parties relating to the disposal of waste. No representations, statements or Agreements, unless agreed to by the parties in writing, shall modify, change, amend or otherwise affect the obligations undertaken in this Agreement. No waiver by either party of any one or more defaults or breaches by the other in the performance of this Agreement shall operate or be construed as a waiver of any future defaults or breaches. Customer may not assign this Agreement without the prior written consent of Company. This Agreement shall be binding upon and shall inure to the benefit of the parties' successors and assigns.

CERTIFICATION

THIS DOCUMENT MUST BE SIGNED BY THE GENERATOR OR GENERATOR'S AUTHORIZED REPRESENTATIVE, AND INDICATES A FIRST HAND KNOWLEDGE OF THE WASTE'S CHARACTERISTICS. BY SIGNING BELOW, GENERATOR CERTIFIES THE TRUTH OF THE INFORMATION ON THE FIRST PAGE HEREOF AND THAT GENERATOR HAS READ AND AGREES TO THE TERMS AND CONDITIONS SET FORTH ON THE FIRST AND SECOND PAGES HEREOF WHICH ARE INCORPORATED HEREIN.

DATE: 6/12/98 CUSTOMER / GENERATOR: Koppers Industries, Inc.

PRINTED NAME: A.S. Kamerer SIGNATURE: _____

USA WASTE SERVICES, INC....NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

EXPIRES: 5/7/98

GENERATOR: KOPPERS INDUSTRIES	
DESCRIPTION: *COAL TAR*	**TONS:** *100*
☒ **SPECIAL WASTE** ☐ **PCS**	
LOCATION: *PORTLAND*	**COUNTY:** *Multnomah*
CONTACT: *AMOS KAMERER*	**PHONE:** *286-3681*

BILLING: *Landfill account* ***PRI001***	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : *CONTACT LANDFILL 24 HOURS PRIOR TO DELIVERY*

APPROVED: CT *CHRIS THOMAS* DATE: ***05/07/97 8:38:30 AM***

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

USA WASTE SERVICES, INC

HAZARDOUS WASTE IS STRICTLY PROHIBITED

USA WASTE SERVICES, INC....NON HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 2560

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

EXPIRES: 5/7/98

GENERATOR: KOPPERS INDUSTRIES	
DESCRIPTION: *COAL TAR*	**TONS:** *100*
☒ **SPECIAL WASTE** ☐ **PCS**	
LOCATION: *PORTLAND*	**COUNTY:** *Multnomah*
CONTACT: *AMOS KAMERER*	**PHONE:** *286-3681*

BILLING: *Landfill account* ***PRI001***	**PO#:** *N/A*	**JOB#:** *N/A*

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SANIFILL NORTHWEST

SANIFILL SOLUTIONS®... NON-HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

REQUEST FOR DISPOSAL

✓WHAT IS THE WASTE CALLED?
COAL TAR PITCH AND REFINED TARS (Pavement Sealer Base and K-1535) MSDS'S ATTACHED

✓WHO CREATED THE WASTE? (generator)
KOPPERS INDUSTRIES, INC.

✓WHERE WAS THE WASTE MADE? *(site name / address / city / state / county)*
7540 N.W. SAINT HELENS ROAD
PORTLAND, OR. 97210
MULTNOMAH County

✓WHAT COLOR IS THE WASTE? BLACK

✓WHAT DOES IT SMELL LIKE? COAL TAR

✓HOW WAS THE WASTE MADE?
SPILLAGE

✓WHO CAN WE CONTACT ABOUT THE WASTE? (*name / company / voice / fax*):
AMOS KAMERER OR T. J. TURNER
KOPPERS INDUSTRIES, INC. Tele.# 286-3681 FAX# 285-2831

✓HOW MUCH WASTE IS THERE? (*tons or yards or drums*) VARIES — MAX. 100 TONS PER YEAR

✓HOW OFTEN WILL THE WASTE BE DISPOSED OF?
OR IS THIS A ONE TIME DISPOSAL? VARIES — COUPLE TIMES PER YEAR

✓IS THIS A HAZARDOUS WASTE AS DEFINED BY FEDERAL OR STATE OR OTHER REGULATIONS? NO

✓CERTIFICATION

I hereby certify that all information is truly representative of the above described waste. I agree to notify SANIFILL if there is a change in the waste stream information as submitted for permit. I also authorize SANIFILL to periodically reanalyze the waste, at my expense. I also certify that all samples were collected according to EPA Method SW-846 and the samples were analyzed by a qualified/certified laboratory and that the appropriate chain of custody was attached. I further certify that the wastes submitted for disposal are not designated as Hazardous by Federal or state regulations.

DATE: 5/2/97 COMPANY: KOPPERS INDUSTRIES, INC.

PRINTED NAME: A.S. KAMERER SIGNATURE:

✓ **PLEASE SEE THE NEXT PAGE FOR BILLING AND APPROVAL INFORMATION.**

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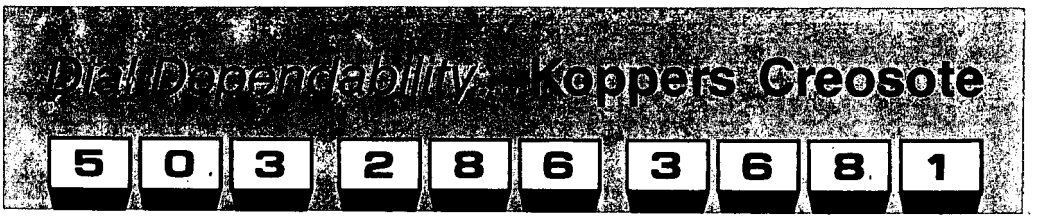

U.S.A. Waste
3205 S.E. Minton Bridge Rd.
Hillsboro, Or. 97123
Chris Thomas

Koppers Company, Inc. • Tar and Wood Products Sector • 1601 Koppers Building • Pittsburgh, PA 15219

IMPORTANT MESSAGE

FOR Amos

DATE 4/30 TIME 3:00 A.M. P.M.

M Chris Thomas

OF Hillsboro Landfill

PHONE 844-9597
AREA CODE NUMBER EXTENSION

☐ FAX

☐ MOBILE
AREA CODE NUMBER TIME TO CALL

TELEPHONED	✓	PLEASE CALL	✓
CAME TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		RUSH	
RETURNED YOUR CALL		SPECIAL ATTENTION	

MESSAGE Mary

SIGNED

TOPS. FORM 3002P LITHO IN U.S.A.

Dial Dependability... Koppers Creosote

5 0 3 2 8 6 3 6 8 1

#844-9597

Chris / Sanifill of Oregon (Hillsboro)

12/26/96 - last disposal of the tar spill caused them major problems - got on their equiptment, got every where. They want to wait until the weather improves (Dries) and then set up a new site for this kind of material. - Check back in the spring.

2/20/97 Same situation as above - waiting for dry weather. Will have a new site manager effective 3/1/97, who will have to be brought up to speed on the matter. Depending on the weather, probably atleast 60 more days away.

4/29/97

OK, can start sending material again. Call Grant, operations manager, a couple of days in advance so he can plan accordingly for the material coming in. Chris will call Amos if he needs anything near to update the permit.

PERMIT TO DISPOSE

SANIFILL SOLUTIONS®... NON-HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

HILLSBORO LANDFILL EXPIRATION DATE: 11-15-96

TRANSPORTER: MDC	CERCLA RQ: NONE
SPECIAL INSTRUCTIONS:	2559
BILLING INFORMATION: MET001	
APPROVED BY/DATE: TJH 11-15-95	

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

there is a minimum charge of $50.00 (fifty) for each load of special waste

✓ DESCRIBE WHAT THE WASTE IS:
COAL TAR PITCH (MSDS ATTACHED)

✓ DESCRIBE HOW THE WASTE WAS MADE:
SPILLAGE

✓ IS THIS A HAZARDOUS WASTE AS DEFINED BY FEDERAL OR STATE OR OTHER REGULATIONS? NO

✓ WHO CREATED THE WASTE (GENERATOR)?
KOPPERS INDUSTRIES, INC.

✓ LOCATION OF WHERE THE WASTE WAS MADE (site name / address / city / county / state):
7540 N.W. SAINT HELENS ROAD
PORTLAND, OREGON 97210-3663
MULTNOMAH COUNTY

✓ TECHNICAL CONTACT (name / company /voice / fax):
AMOS S. KAMBERER, KOPPERS INDUSTRIES, INC.
VOICE # 503-286-3681 FAX # 503-285-2831

✓ AMOUNT OF WASTE IN TONS OR YARDS OR DRUMS: VARIES WITH INCIDENT
100 TONS

✓ HOW OFTEN WILL THE WASTE BE DISPOSED OF? OR IS THIS A ONE TIME DISPOSAL? VARIES - 1 to 2 TIMES PER YEAR

✓ WHAT COLOR IS THE WASTE? BLACK ✓ WHAT DOES IT SMELL LIKE? COAL TAR

✓ CERTIFICATION
I hereby certify that all information is truly representative of the above described waste. I agree to notify SANIFILL if there is a change in the waste stream information as submitted for permit. I also authorize SANIFILL to periodically reanalyze the waste, at my expense. I also certify

Koppers018300

SANIFILL NORTHWEST

SANIFILL SOLUTIONS®... NON-HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

REQUEST FOR DISPOSAL

✓ DESCRIBE WHAT THE WASTE IS:
COAL TAR PITCH (MSDS ATTACHED)

✓ DESCRIBE HOW THE WASTE WAS MADE:
SPILLAGE

✓ IS THIS A HAZARDOUS WASTE AS DEFINED BY FEDERAL OR STATE OR OTHER REGULATIONS? NO

✓ WHO CREATED THE WASTE (GENERATOR)?
KOPPERS INDUSTRIES, INC.

✓ LOCATION OF WHERE THE WASTE WAS MADE *(site name / address / city / county / state)*:
7540 N.W. SAINT HELENS ROAD
PORTLAND, OREGON 97210-3663
MULTNOMAH COUNTY

✓ TECHNICAL CONTACT *(name / company /voice / fax)*:
AMOS S. KAMERER, KOPPERS INDUSTRIES, INC.
VOICE # 503-286-3681 FAX # 503-285-2831

✓ AMOUNT OF WASTE IN *TONS* OR *YARDS* OR *DRUMS*: VARIES WITH INCIDENT

✓ HOW OFTEN WILL THE WASTE BE DISPOSED OF?
OR IS THIS A ONE TIME DISPOSAL? VARIES - 1 to 2 TIMES PER YEAR

✓ WHAT COLOR IS THE WASTE? BLACK ✓ WHAT DOES IT SMELL LIKE? COAL TAR

✓ CERTIFICATION

I hereby certify that all information is truly representative of the above described waste. I agree to notify SANIFILL if there is a change in the waste stream information as submitted for permit. I also authorize SANIFILL to periodically reanalyze the waste, at my expense. I also certify that all samples were collected according to EPA Method SW-846 and the samples were analyzed by a qualified/certified laboratory and that the appropriate chain of custody was attached. I further certify that the wastes submitted for disposal are not designated as Hazardous by U.S. or state regulations.

DATE: 11/1/95 COMPANY: KOPPERS INDUSTRIES, INC.

PRINTED NAME: A.S. KAMERER SIGNATURE:

✓ **PLEASE SEE BACK SIDE FOR BILLING AND APPROVAL INFORMATION.**

SANIFILL SOLUTIONS®... NON-HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

BILLING INFORMATION

✓ WHICH LANDFILL WILL THE WASTE GO TO?

✓ **HILLSBORO LANDFILL** 3205 SE MINTER BRIDGE ROAD, HILLSBORO, OR 97123 (503) 640-9427

____ **N. WASCO COUNTY LANDFILL** 2550 STEEL ROAD, THE DALLES, OR 97058 (503) 296 4082

____ **RIVERBEND LANDFILL** 13469 SW HIGHWAY 18, McMINNVILLE, OR 97128 (503) 472-8788

____ **GRAHAM ROAD LANDFILL** S. 1820 GRAHAM ROAD, MEDICAL LAKE, WA 99022 (509) 244-0151

✓ WHO WILL TRANSPORT THE WASTE TO THE LANDFILL? *(name / company / phone)*:

DISPATCH, METROPOLITAN DISPOSAL & RECYCLING, #503-285-0571

X roll-off box ____ belly dump ____ end dump ____ drums ____ pickup/trailer ____ other

✓ PAYMENT INFORMATION:

____ CASH ____ BUSINESS CHECK ____ VISA/MASTERCARD ↓ X LANDFILL ACCOUNT

WHAT P.O.# SHOULD WE BILL?: VERBAL "T.J." *LANDFILL ACCOUNT #*_____

FOR INFORMATION ABOUT YOUR LANDFILL ACCOUNT PLEASE CONTACT THE LANDFILL

APPROVAL INFORMATION

FAX COMPLETED FORM AND LABORATORY RESULTS TO

TIM HONADEL AT (503) 648-2490 (24 hrs)

EVALUATIONS FOR WASTE DISPOSAL APPROVAL ARE CONDUCTED MONDAY-FRIDAY 8:00a-12:00p

FOR INFORMATION ON CHARACTERIZING YOUR WASTE AND DETERMINING WHETHER OR NOT THE WASTE IS HAZARDOUS, CONTACT TIM HONADEL, 8:00a-12:00p, (503) 648-0817.

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2/95

MATERIAL SAFETY DATA SHEET

K O P P E R S

MEDICAL EMERGENCIES: 1 800 553-5631
OUTSIDE U.S.A.: 412 227-2001
GENERAL INFORMATION: 412 227-2884

KOPPERS INDUSTRIES, INC.
436 SEVENTH AVENUE
PITTSBURGH, PA. 15219-1800

CHEMTREC ASSISTANCE 1 800 424-9300
CANUTEC: 1 613 996-6666

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: Electrode, Aromatic, Binder, Target, Core & Coal Tar Pitch

COMMODITY NUMBER: 42200001

SYNONYM: coal tar pitch, pencil pitch

PRODUCT USE:

CHEMICAL FAMILY: polynuclear aromatic hydrocarbons

FORMULA: complex mixture of hydrocarbons

CAS NUMBER: 65996-93-2

NFPA 704M/HMIS RATING: 2/2 HEALTH 1/1 FLAMMABILITY 1/1 REACTIVITY
0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme

CANADIAN PRODUCT CLASSIFICATION: Class D, Division 2, Subdivision A, Very Toxic Material

SECTION II - HEALTH/SAFETY ALERT

CHRONIC OVEREXPOSURE (as defined by OSHA recommended standards)
MAY CAUSE CANCER
WARNING
HARMFUL TO THE SKIN, OR IF INHALED OR SWALLOWED
CAUSES EYE AND SKIN IRRITATION
AVOID PROLONGED AND/OR REPEATED CONTACT INCLUDING VAPORS
OBSERVE GOOD HYGIENE AND SAFETY PRACTICES WHEN HANDLING THIS PRODUCT
DO NOT USE THIS PRODUCT UNTIL MSDS HAS BEEN READ AND UNDERSTOOD

SECTION III - HEALTH HAZARD INFORMATION

EYE: Overexposure to vapor can result in irritation and/or corneal changes. Direct eye contact may cause irritation. Contact with heated material may cause thermal burns.

SKIN: Contact with skin can result in irritation which when accentuated by sunlight may result in a phototoxic skin reaction. Repeated and/or prolonged contact may cause more serious skin disorders including cancer. Contact with heated material may cause thermal burns.

INHALATION: Overexposure to vapor may result in respiratory tract irritation. Repeated and/or prolonged contact to high concentrations of vapor may result in

respiratory difficulties, central nervous system (CNS) effects and possible cardiovascular collapse.

INGESTION: Ingestion of material may cause gastrointestinal disturbances including irritation, nausea, vomiting, abdominal pain and in extreme cases cardiovascular involvement.

OTHER: See Section XIII (Comments) for additional information on health effects.

SECTION IV - EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Immediately flush with large amounts of water for 15 minutes. Immediately seek medical aid.

SKIN CONTACT: Wash thoroughly with waterless hand cleaner. For contact with molten product, do not remove contaminated clothing. Flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. Pack with ice. Seek medical aid.

INHALATION: Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration or oxygen as indicated. Seek medical aid.

INGESTION: Ingestion is unlikely. If it occurs, seek medical aid.

SECTION V - FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT & METHOD: >150 C (>302 F) COC AUTOIGNITION TEMP: NA

FLAMMABLE LIMITS (% BY VOLUME/AIR): LOWER: NA UPPER: NA

EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide, foam or water spray. Water or foam may cause frothing, if molten.

FIRE-FIGHTING PROCEDURES: Wear complete fire service protective equipment, including full-face MSHA/NIOSH approved self-contained breathing apparatus. Use water to cool fire-exposed container/structure/protect personnel. Toxic vapors may be given off in a fire.

FIRE AND EXPLOSION HAZARDS: When heated (fire conditions), vapors/decomposition products may be released forming flammable/explosive mixtures in air. Closed containers may explode when exposed to extreme heat(fire). Dust may form explosive mixture with air. Combustible at high temperatures.

SENSITIVITY TO MECHANICAL IMPACT: ND

SENSITIVITY TO STATIC DISCHARGE: ND

SECTION VI - SPILL, LEAK AND DISPOSAL INFORMATION

SPILL OR LEAK PROCEDURES (PRODUCT): Solidified spills: Shovel into dry containers and cover. Flush area with water. Contain runoff from fire control

and dilution water. Release or spillage of solid can be treated as a coal spillage and recovery made avoiding skin and eye irritation. If hot liquid is spilled, contain with sand, ashes, etc. Allow to cool, scrape up and dispose. Avoid contact with hot liquid and fumes.

WASTE DISPOSAL: If disposing in a state other than California, dispose of as an industrial waste in accordance with local, state, and federal regulations. Place in tightly sealed labeled containers. This product contains coal tar constituents, which have been determined by IARC to be a carcinogen. According to California hazardous waste regulations, substances posing a hazard to human health because of carcinogenicity are hazardous wastes. Dispose of as a hazardous waste in the state of California.

SECTION VII - RECOMMENDED EXPOSURE LIMIT/HAZARDOUS INGREDIENTS

EXPOSURE LIMIT (PRODUCT):

*For coal tar pitch volatiles, OSHA-PEL is 0.2 mg/m3 averaged over an 8 hour work shift, benzene soluble fraction of total particulate including dust, fumes and mists.

HAZARDOUS INGREDIENTS	CAS NUMBER	%BY WT.	EXPOSURE LIMIT (PPM:MG/M3)		
Coal Tar Pitch	65996-93-2	100	OSHA-TWA	-	*
Benz(a)anthracene	56-55-3	<1	NONE		
Benzo(b)fluoranthene	205-99-2	<1	NONE		
Benzo(k)fluoranthene	207-08-9	<1	NONE		
Benzo(j)fluoranthene	205-82-3	<0.5	NONE		
Benzo(a)pyrene	50-32-8	<1	NONE		
Dibenzo(a,h)anthracene	53-70-3	<0.5	NONE		
Indeno(1,2,3-cd)pyrene	193-39-5	<0.5	NONE		
Phenanthrene	85-01-8	<2	NONE		

---------- SARA TITLE III SECTION 313 CHEMICALS ----------
(SEE SECTION VII FOR CAS NUMBERS AND PERCENTAGES)

Benz(a)anthracene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(j)fluoranthene
Benzo(a)pyrene
Dibenzo(a,h)anthracene
Indeno(1,2,3-cd)pyrene
Phenanthrene

SECTION VIII - PERSONAL PROTECTION INFORMATION

EYE PROTECTION: Industrial safety glasses, minimum. As necessary to comply with 29 CFR 1910.133 and work area conditions: use side shields, goggles or face shield. Chemical goggles; face shield (if handling molten material).

SKIN PROTECTION: As required, industrial grade fabric-type gloves, for solid pitch. Heat resistant if molten. Wear industrial-type work clothing and safety

footwear. Depending on working conditions, i.e., contact potential, wear protective garments such as head/neck cover, aprons, jackets, pants, coveralls, boots, etc.

RESPIRATORY PROTECTION: If ventilation does not maintain inhalation exposures below TLV(PEL), use MSHA/NIOSH approved units as per current 29 CFR1910.134 and manufacturers' "Instructions" and "Warnings". Combination filter/organic vapor cartridges or canisters may be used. Full-face piece respiratory protective units required.

VENTILATION: Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits and areas below flammable vapor/explosive dust concentrations.

SECTION IX - PERSONAL HANDLING INSTRUCTIONS

HANDLING: Avoid prolonged or repeated contact with skin or breathing of dusts. Observe good personal hygiene practices and recommended procedures. Application of certain protective creams (sun screens for coal tar products) before working/several times during work may be beneficial. See SECTION XIII (COMMENTS).

STORAGE: Keep in a closed, labeled container within a cool (well shaded), dry ventilated area. Protect from physical damage. Maintain good housekeeping.

OTHER: Not for use or storage in or around the home. DO NOT TAKE INTERNALLY. Do not use until manufacturer's precautions have been read/understood.Wash exposed areas promptly and thoroughly after skin contact and before eating, drinking, using tobacco products or rest rooms.

SECTION X - REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY: none known

INCOMPATIBILITY: none known

HAZARDOUS REACTIONS/DECOMPOSITION/COMBUSTION PRODUCTS: May emit toxic fumes upon decomposition

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: none

SECTION XI - PHYSICAL DATA

BOILING POINT: >260 C (>500 F)ibp SPECIFIC GRAVITY: >1.22

MELTING POINT: 105 to 130C % VOLATILE BY VOL: negligib

VAPOR PRESSURE: <1mm Hg EVAPORATION RATE(ETHER=1): <1butyl acetate=1

VAPOR DENSITY(AIR=1):>1 VISCOSITY: NA

SOLUBILITY: negligible (WATER) pH: NA

VOC: NA

COEFFICIENT OF WATER/OIL DISTRIBUTION: ND

APPEARANCE/ODOR: Black solid with no odor at 21 C; aromatic odor after melting

SECTION XII - TRANSPORT INFORMATION

--------- PRODUCT PACKAGED IN HOPPER CAR ---------

RQ OTHER REGULATED SUBSTANCES, SOLID, N.O.S.
(CONTAINS BENZO(A)PYRENE, DIBENZO(A,H)ANTHRACENE)
CLASS 9 (MISC. HAZARDOUS MAT'L) NA3077 PG III
ELECTRODE BINDER
MARKED: 3077

--------- PRODUCT PACKAGED IN DUMP TRUCK ---------

RQ OTHER REGULATED SUBSTANCES, SOLID, N.O.S.
(CONTAINS BENZO(A)PYRENE, DIBENZO(A,H)ANTHRACENE)
CLASS 9 (MISC. HAZARDOUS MAT'L) NA3077 PG III
PITCH, COAL
MARKED: 3077

--------- PRODUCT PACKAGED IN DRUM (REMOVABLE HEAD) ---------

RQ OTHER REGULATED SUBSTANCES, SOLID, N.O.S.
(CONTAINS BENZO(A)PYRENE, DIBENZO(A,H)ANTHRACENE)
CLASS 9 (MISC. HAZARDOUS MAT'L) NA3077 PG III
PITCH, COAL
MARKED: 3077

--------- PRODUCT PACKAGED IN BAG (2000 LBS-SHORT TON) ---------

RQ OTHER REGULATED SUBSTANCES, SOLID, N.O.S.
(CONTAINS BENZO(A)PYRENE, DIBENZO(A,H)ANTHRACENE)
CLASS 9 (MISC. HAZARDOUS MAT'L) NA3077 PG III
PITCH, COAL
MARKED: 3077

SECTION XIII - COMMENTS

This product contains coal tar pitch. The IARC monographs (Vol. 35) state that there is sufficient evidence that coal tar pitches are carcinogenic in humans and that there is sufficient evidence that occupational exposure to coal tars as it occurs during the destructive distillation of coal is causally associated with the occurrence of skin cancer in humans. It is also listed in NTP Report on Carcinogens & in OSHA Subpart Z.

Persons with a history of liver/kidney/skin/CNS/respiratory disease or exposure to materials harmful to these systems are at a greater than normal risk of developing adverse health effects when working with this product.

Closed system handling of liquid pitch could create excessive ammonia

concentrations in confined spaces: e.g., tanks, rail cars, tank trailers. When entering a confined space that is in liquid pitch service, check for the ammonia concentration in addition to oxygen content, combustibility and hydrogen sulfide as part of your confined space sampling procedures.

No known ingredients which occur at greater than 0.1%, other than those listed above, are listed as a carcinogen in the IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, the NTP Annual Report on Carcinogens or OSHA 29 CFR 1910.1001-1047 subpart Z Toxic and Hazardous Substances (Specifically Regulated Substances).

SKIN PROTECTION (protective material): Permeation/degradation values of chemical mixtures cannot be predicted from pure components or chemical classes. Thus, these materials are normally best estimates based on available pure component data. A significant difference in chemical breakthrough time has been reported for generically similar gloves from different manufacturers (AIHA J., 48, 941-947 1987).

Do not use until manufacturer's precautions have been read/understood. Wash exposed areas promptly and thoroughly after skin contact from working with this product and before eating, drinking, using tobacco products or rest rooms.

Do not wear contact lens without proper eye protection when using this product.

Prepared By: Occupational Health and Product Safety Department

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REVISION DATE: 02/95 CODE NUMBER: IND00179FE9517
SPECIFICATION SHEET NUMBER: TP-1137-0 REPLACES SHEET: IND00179SE9416
COMMODITY NUMBER: 42200001

SUPPLIER INFORMATION: Same as manufacturer.

NOTICE: While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Koppers Industries makes no warranty with respect thereto and disclaims all liability from reliance thereon.

PERMIT TO DISPOSE

SANIFILL SOLUTIONS®... NON-HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

HILLSBORO LANDFILL EXPIRATION DATE: 11-16-96

TRANSPORTER:	CERCLA RQ
MDC	NONE

SPECIAL INSTRUCTIONS:

BILLING INFORMATION: METOO1

APPROVED BY/DATE: [signature] 11-16-95

2560

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

there is a minimum charge of $50.00 (fifty) for each load of special waste

✓ DESCRIBE WHAT THE WASTE IS:
REFINED TARS (PAVEMENT SEALER BASE AND/OR K-45-35 TAR)
MSDS' ARE ATTACHED

✓ DESCRIBE HOW THE WASTE WAS MADE:
SPILLAGE

✓ IS THIS A HAZARDOUS WASTE AS DEFINED BY FEDERAL OR STATE OR OTHER REGULATIONS? NO

✓ WHO CREATED THE WASTE (GENERATOR)?
KOPPERS INDUSTRIES, INC.

✓ LOCATION OF WHERE THE WASTE WAS MADE (site name / address / city / county / state):
7540 N.W. SAINT HELENS ROAD
PORTLAND, OREGON 97210-3663
MULTNOMAH COUNTY

✓ TECHNICAL CONTACT (name / company /voice / fax):
AMOS S. KAMERER, KOPPERS INDUSTRIES, INC.
VOICE # 503-286-3681 FAX # 503-285-2831

✓ AMOUNT OF WASTE IN TONS OR YARDS OR DRUMS: VARIES WITH INCIDENT
100 TONS

✓ HOW OFTEN WILL THE WASTE BE DISPOSED OF? OR IS THIS A ONE TIME DISPOSAL? VARIES - 1 to 2 TIMES PER YEAR

✓ WHAT COLOR IS THE WASTE? BLACK ✓ WHAT DOES IT SMELL LIKE? COAL TAR

✓ CERTIFICATION
I hereby certify that all information is truly representative of the above described waste. I agree to notify SANIFILL if there is a change in the waste stream information as submitted for permit. I also authorize SANIFILL to periodically inspect the waste at my generator. I also certify

Koppers018309

SANIFILL NORTHWEST

SANIFILL SOLUTIONS®... NON-HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

REQUEST FOR DISPOSAL

✓ DESCRIBE WHAT THE WASTE IS:

REFINED TARS (PAVEMENT SEALER BASE AND/OR K-15-35 TAR)
MSDS' ARE ATTACHED

✓ DESCRIBE HOW THE WASTE WAS MADE:

SPILLAGE

✓ IS THIS A HAZARDOUS WASTE AS DEFINED BY FEDERAL OR STATE OR OTHER REGULATIONS? NO

✓ WHO CREATED THE WASTE (GENERATOR)?

KOPPERS INDUSTRIES, INC.

✓ LOCATION OF WHERE THE WASTE WAS MADE *(site name / address / city / county / state)*:

7540 N.W. SAINT HELENS ROAD
PORTLAND, OREGON 97210-3663
MULTNOMAH COUNTY

✓ TECHNICAL CONTACT (*name / company /voice / fax*):

AMOS S. KAMERER, KOPPERS INDUSTRIES, INC.
VOICE # 503-286-3681 FAX # 503-285-2831

✓ AMOUNT OF WASTE IN *TONS* OR *YARDS* OR *DRUMS*: VARIES WITH INCIDENT

✓ HOW OFTEN WILL THE WASTE BE DISPOSED OF? VARIES - 1 to 2 TIMES PER YEAR
OR IS THIS A ONE TIME DISPOSAL?

✓ WHAT COLOR IS THE WASTE? BLACK ✓ WHAT DOES IT SMELL LIKE? COAL TAR

✓ CERTIFICATION

I hereby certify that all information is truly representative of the above described waste. I agree to notify SANIFILL if there is a change in the waste stream information as submitted for permit. I also authorize SANIFILL to periodically reanalyze the waste, at my expense. I also certify that all samples were collected according to EPA Method SW-846 and the samples were analyzed by a qualified/certified laboratory and that the appropriate chain of custody was attached. I further certify that the wastes submitted for disposal are not designated as Hazardous by U.S. or state regulations.

DATE: 11/1/95 COMPANY: KOPPERS INDUSTRIES, INC.

PRINTED NAME: A.S. KAMERER SIGNATURE:

✓ **PLEASE SEE BACK SIDE FOR BILLING AND APPROVAL INFORMATION.**

SANIFILL SOLUTIONS®... NON-HAZARDOUS WASTE DISPOSAL SOLUTIONS FOR THE PACIFIC NORTHWEST

BILLING INFORMATION

✓ WHICH LANDFILL WILL THE WASTE GO TO?

✓ HILLSBORO LANDFILL 3205 SE MINTER BRIDGE ROAD, HILLSBORO, OR 97123 (503) 640-9427

____ N. WASCO COUNTY LANDFILL 2550 STEEL ROAD, THE DALLES, OR 97058 (503) 296 4092

____ RIVERBEND LANDFILL 13469 SW HIGHWAY 18, McMINNVILLE, OR 97128 (503) 472-6788

____ GRAHAM ROAD LANDFILL S. 1820 GRAHAM ROAD, MEDICAL LAKE, WA 99022 (509) 244-0151

✓ WHO WILL TRANSPORT THE WASTE TO THE LANDFILL? *(name / company / phone)*:

DISPATCH, METROPOLITAN DISPOSAL & RECYCLING, #503-285-0571

X roll-off box ____ belly dump ____ end dump ____ drums ____ pickup/trailer ____ other

✓ PAYMENT INFORMATION:

____ CASH ____ BUSINESS CHECK ____ VISA/MASTERCARD X LANDFILL ACCOUNT

WHAT P.O.# SHOULD WE BILL?: VERBAL "T.J." *LANDFILL ACCOUNT #* MET001

FOR INFORMATION ABOUT YOUR LANDFILL ACCOUNT PLEASE CONTACT THE LANDFILL

APPROVAL INFORMATION

FAX COMPLETED FORM AND LABORATORY RESULTS TO

TIM HONADEL AT (503) 648-2490 (24 hrs)

EVALUATIONS FOR WASTE DISPOSAL APPROVAL ARE CONDUCTED MONDAY-FRIDAY 8:00a-12:00p

FOR INFORMATION ON CHARACTERIZING YOUR WASTE AND DETERMINING WHETHER OR NOT THE WASTE IS HAZARDOUS, CONTACT TIM HONADEL, 8:00a-12:00p, (503) 648-0817.

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10/95

MATERIAL SAFETY DATA SHEET

K O P P E R S

MEDICAL EMERGENCIES: 1 800 553-5631
OUTSIDE U.S.A.: 412 227-2001
GENERAL INFORMATION: 412 826-3967

KOPPERS INDUSTRIES, INC.
1005 WILLIAM PITT WAY
PITTSBURGH, PA. 15238

CHEMTREC ASSISTANCE 1 800 424-9300
CANUTEC: 1 613 996-6666

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: Pavement Sealer Base

COMMODITY NUMBER: 2110102

SYNONYM: K-364, RT-12

PRODUCT USE: Pavement sealer and coating

CHEMICAL FAMILY: Polycyclic hydrocarbon

FORMULA: Complex mixture of hydrocarbons

CAS NUMBER: 65996-93-2

NFPA 704M/HMIS RATING: 2/2 HEALTH 1/1 FLAMMABILITY 1/1 REACTIVITY
0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme

CANADIAN PRODUCT CLASSIFICATION: Class D, Division 2, Subdivision A, Very Toxic Material

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SECTION II - HEALTH/SAFETY ALERT

CHRONIC OVEREXPOSURE (as defined by OSHA recommended standards)
MAY CAUSE CANCER
WARNING
HARMFUL TO THE SKIN, OR IF INHALED OR SWALLOWED
CAUSES EYE AND SKIN IRRITATION
AVOID PROLONGED OR REPEATED CONTACT
OBSERVE GOOD HYGIENE AND SAFETY PRACTICES WHEN HANDLING THIS PRODUCT
DO NOT USE THIS PRODUCT UNTIL MSDS HAS BEEN READ AND UNDERSTOOD

SECTION III - HEALTH HAZARD INFORMATION

EYE: Overexposure to vapor can result in irritation and/or corneal changes. Direct eye contact may cause irritation. Contact with heated material may cause thermal burns.

SKIN: Contact with skin can result in severe irritation which when accentuated by sunlight may result in a phototoxic skin reaction. Repeated and/or prolonged contact may cause more serious skin disorders including cancer. Contact with heated material may cause thermal burns.

INHALATION: Overexposure to vapor may result in respiratory tract irritation. Repeated and/or prolonged contact to high concentrations of vapor may result in

respiratory difficulties, central nervous system (CNS) effects and possible cardiovascular collapse.

INGESTION: Ingestion of material is unlikely, but may cause gastrointestinal disturbances including irritation, nausea, vomiting, abdominal pain and in extreme cases cardiovascular involvement.

OTHER: See Section XIII (Comments) for additional information on health effects.

SECTION IV - EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Immediately flush with large amounts of water for 15 minutes. Seek medical aid.

SKIN CONTACT: Wash thoroughly with waterless hand cleaner. For contact with molten product, do not remove contaminated clothing. Flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. Pack with ice. Seek medical aid.

INHALATION: Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration or oxygen as indicated. Seek medical aid.

INGESTION: If victim is conscious and alert, give 1-2 glasses of water or milk. Induce vomiting using ipecac syrup as directed on the label. After vomiting, the victim may be given a slurry of 100 g of activated charcoal in 8 oz. of water. Seek medical aid.

SECTION V - FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT & METHOD: >93 C (>200 F) PMCC AUTOIGNITION TEMP: NA

FLAMMABLE LIMITS (% BY VOLUME/AIR): LOWER: NA UPPER: NA

TDG FLAMMABILITY CLASSIFICATION: None

EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide, foam or water spray. Water or foam may cause frothing, if molten.

FIRE-FIGHTING PROCEDURES: Wear complete fire service protective equipment, including full-face MSHA/NIOSH approved self-contained breathing apparatus. Use water to cool fire-exposed container/structure/protect personnel. Toxic vapors may be given off in a fire.

FIRE AND EXPLOSION HAZARDS: When heated (fire conditions), vapors/decomposition products may be released forming flammable/explosive mixtures in air. Closed containers may explode when exposed to extreme heat(fire).

SENSITIVITY TO MECHANICAL IMPACT: ND

SENSITIVITY TO STATIC DISCHARGE: ND

SECTION VI - SPILL, LEAK AND DISPOSAL INFORMATION

SPILL OR LEAK PROCEDURES (PRODUCT): Stop leak if no risk involved. Stay upwind. Solidified spills: Shovel into dry containers and cover. Small wet spills: Take up with sand or other noncombustible absorbent material. Flush area with water. Dike large spills for later disposal. Contain runoff from fire control and dilution water.

WASTE DISPOSAL: If disposing in a state other than California, dispose of as an industrial waste in accordance with local, state, and federal regulations. Place in tightly sealed labeled containers. This product contains coal tar constituents, which have been determined by IARC to be a carcinogen. According to California hazardous waste regulations, substances posing a hazard to human health because of carcinogenicity are hazardous wastes. Dispose of as a hazardous waste in the state of California.

SECTION VII - RECOMMENDED EXPOSURE LIMIT/HAZARDOUS INGREDIENTS

EXPOSURE LIMIT (PRODUCT):

*For coal tar pitch volatiles, OSHA-PEL is 0.2 mg/m3 averaged over an 8 hour work shift, benzene soluble fraction of total particulate including dust, fumes and mists.

HAZARDOUS INGREDIENTS	CAS NUMBER	%BY WT.	EXPOSURE LIMIT (PPM;MG/M3)		
Coal Tar Pitch	65996-93-2	100	OSHA-TWA	-	*
Benz(a)anthracene	56-55-3	<1	NONE		
Benzo(b)fluoranthene	205-99-2	<1	NONE		
Benzo(k)fluoranthene	207-08-9	<1	NONE		
Benzo(j)fluoranthene	205-82-3	<0.5	NONE		
Benzo(a)pyrene	50-32-8	<1	NONE		
Dibenzo(a,h)anthracene	53-70-3	<0.5	NONE		
Indeno(1,2,3-cd)pyrene	193-39-5	<0.5	NONE		
Phthanthrene	85-01-8	<2	NONE		

---------- SARA TITLE III SECTION 313 CHEMICALS ----------
(SEE SECTION VII FOR CAS NUMBERS AND PERCENTAGES)

Benz(a)anthracene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(j)fluoranthene
Benzo(a)pyrene
Dibenzo(a,h)anthracene
Indeno(1,2,3-cd)pyrene
Phenanthrene

SECTION VIII - PERSONAL PROTECTION INFORMATION

EYE PROTECTION: Industrial safety glasses, minimum. As necessary to comply with 29 CFR 1910.133 and work area conditions: use side shields, goggles or face

shield.

SKIN PROTECTION: As required, industrial resistant flexible-type gloves. Depending on working conditions, i.e., contact potential, wear impervious protective garments such as head/neck cover, aprons, jackets, pants, coveralls, boots, etc. See Section XIII - Comments for additional information on skin protection recommendations.

RESPIRATORY PROTECTION: Not required under normal use conditions. If ventilation does not maintain inhalation exposures below TLV(PEL), use MSHA/NIOSH approved units as per current 29 CFR1910.134 and manufacturers' "Instructions" and "Warnings". Combination filter/organic vapor cartridges or canister may be used.

VENTILATION: Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits and areas below flammable vapor concentrations. Local exhaust is necessary for use in enclosed or confined spaces. See OSHA Requirement/NIOSH Pub. 80-106 "Working in a Confined Space".

SECTION IX - PERSONAL HANDLING INSTRUCTIONS

HANDLING: Avoid prolonged or repeated breathing of vapors, mists or fumes. Avoid breathing of fumes, mists, or smoke. Observe good personal hygiene practices and recommended procedures. Application of certain protective creams (sun screens for coal tar products) before working/several times during work may be beneficial.

STORAGE: Keep in a closed, labeled container within a cool (well shaded), dry ventilated area. Protect from physical damage. Keep containers closed when material is not in use. Maintain good housekeeping.

OTHER: Not for use or storage in or around the home. DO NOT TAKE INTERNALLY. Do not use until manufacturer's precautions have been read/understood.Wash exposed areas promptly and thoroughly after skin contact and before eating, drinking, using tobacco products or rest rooms.

SECTION X - REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY: None known

INCOMPATIBILITY: none known

HAZARDOUS REACTIONS/DECOMPOSITION/COMBUSTION PRODUCTS: toxic fumes may be emitted when burned

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: none

SECTION XI - PHYSICAL DATA

BOILING POINT: >150 C (>302 F)lbp SPECIFIC GRAVITY: >1.1

MELTING POINT: NA % VOLATILE BY VOL: neglig.

VAPOR PRESSURE: <5mm Hg EVAPORATION RATE(ETHER=1): <1(butyl acet=1)

VAPOR DENSITY(AIR=1):>1 VISCOSITY: ND

SOLUBILITY: negligible (WATER) pH: ND

VOC: NA

COEFFICIENT OF WATER/OIL DISTRIBUTION: negligible in water

APPEARANCE/ODOR: Black viscous liquid with aromatic odor

SECTION XII - TRANSPORT INFORMATION

--------- PRODUCT PACKAGED IN TANK CAR ---------

RQ ELEVATED TEMPERATURE LIQUID, N.O.S.
(CONTAINS BENZO(A)PYRENE, DIBENZO(A,H)ANTHRACENE)
CLASS 9 UN3257 PG III
SEALER, ASPHALT SURFACE PAVEMENT, ASPHALT, COAL TAR REFINED
OR PETROLEUM BASE
MARKED: HOT 3257

--------- PRODUCT PACKAGED IN TANK TRUCK ---------

RQ ELEVATED TEMPERATURE LIQUID, N.O.S.
(CONTAINS BENZO(A)PYRENE, DIBENZO(A,H)ANTHRACENE)
CLASS 9 UN3257 PG III
SEALER, ASPHALT SURFACE PAVEMENT, ASPHALT, COAL TAR REFINED
OR PETROLEUM BASE
MARKED: HOT 3257

--------- PRODUCT PACKAGED IN DRUM (TIGHT HEAD) ---------

RQ OTHER REGULATED SUBSTANCES,LIQUID,N.O.S.
(CONTAINS BENZO(A)PYRENE, DIBENZO(A,H)ANTHRACENE)
CLASS 9 NA3082 PG III
SEALER, ASPHALT SURFACE PAVEMENT, ASPHALT, COAL TAR REFINED
OR PETROLEUM BASE
MARKED: 3082

SECTION XIII - COMMENTS

This product contains coal tar pitch. IARC Monographs (Volume 35) states that there is sufficient evidence that coal tar pitches are carcinogenic in humans. Additionally, there is sufficient evidence that occupational exposure to coal tars as it occurs during the destructive distillation of coal is casually associated with the occurrence of skin cancers in humans.

Persons with a history of liver, kidney, skin or respiratory disease or exposure to materials harmful to these systems are at a greater than normal risk of developing adverse health effects when working with this product.

No known ingredients which occur at greater than 0.1%, other than those listed above, are listed as a carcinogen in the IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, the NTP Annual Report on Carcinogens or OSHA 29 CFR 1910.1001-1047 subpart Z Toxic and Hazardous Substances (Specifically Regulated Substances).

SKIN PROTECTION (protective material): Permeation/degradation values of chemical mixtures cannot be predicted from pure components or chemical classes. Thus, these materials are normally best estimates based on available pure component data. A significant difference in chemical breakthrough time has been reported for generically similar gloves from different manufacturers (AIHA J., 48, 941-947 1987).

Do not use until manufacturer's precautions have been read/understood. Wash exposed areas promptly and thoroughly after skin contact from working with this product and before eating, drinking, using tobacco products or rest rooms.

Do not wear contact lens without proper eye protection when using this product.

Prepared By: Occupational Health and Product Safety Department

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REVISION DATE: 10/95 CODE NUMBER: IND001270C9518
SPECIFICATION SHEET NUMBER: TP-1055-1 REPLACES SHEET: IND001270C9517
COMMODITY NUMBER: 2110102

SUPPLIER INFORMATION: Same as manufacturer.

NOTICE: While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Koppers Industries makes no warranty with respect thereto and disclaims all liability from reliance thereon.

MATERIAL SAFETY DATA SHEET

K O P P E R S

MEDICAL EMERGENCIES: 1 800 553-5631
OUTSIDE U.S.A.: 412 227-2001
GENERAL INFORMATION: 412 826-3967

10/95

KOPPERS INDUSTRIES, INC.
1005 WILLIAM PITT WAY
PITTSBURGH, PA. 15238

CHEMTREC ASSISTANCE 1 800 424-9300
CANUTEC: 1 613 996-6666

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: Refined Tars K-1535

COMMODITY NUMBER: 21101061

SYNONYM: Refined Tar

PRODUCT USE: Manufacture of coating products

CHEMICAL FAMILY: Polycyclic hydrocarbon

FORMULA: Complex mixture of hydrocarbons

CAS NUMBER: See Sec 7

NFPA 704M/HMIS RATING: 2/2 HEALTH 1/1 FLAMMABILITY 1/1 REACTIVITY
0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme

CANADIAN PRODUCT CLASSIFICATION: Class D, Division 2, Subdivision A, Very Toxic Material

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SECTION II - HEALTH/SAFETY ALERT

CHRONIC OVEREXPOSURE (as defined by OSHA recommended standards)
MAY CAUSE CANCER
WARNING
HARMFUL TO THE SKIN, OR IF INHALED OR SWALLOWED
CAUSES EYE AND SKIN IRRITATION
AVOID PROLONGED OR REPEATED CONTACT
OBSERVE GOOD HYGIENE AND SAFETY PRACTICES WHEN HANDLING THIS PRODUCT
DO NOT USE THIS PRODUCT UNTIL MSDS HAS BEEN READ AND UNDERSTOOD

SECTION III - HEALTH HAZARD INFORMATION

EYE: Overexposure to vapor can result in irritation and/or corneal changes. Direct eye contact may cause irritation. Contact with heated material may cause thermal burns.

SKIN: Contact with skin can result in severe irritation which when accentuated by sunlight may result in a phototoxic skin reaction. Repeated and/or prolonged contact may cause more serious skin disorders including cancer. Contact with heated material may cause thermal burns.

INHALATION: Overexposure to vapor may result in respiratory tract irritation. Repeated and/or prolonged contact to high concentrations of vapor may result in

respiratory difficulties, central nervous system (CNS) effects and possible cardiovascular collapse.

INGESTION: Ingestion of material is unlikely, but may cause gastrointestinal disturbances including irritation, nausea, vomiting, abdominal pain and in extreme cases cardiovascular involvement.

OTHER: See Section XIII (Comments) for additional information on health effects.

SECTION IV - EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Immediately flush with large amounts of water for 15 minutes. Seek medical aid.

SKIN CONTACT: Wash thoroughly with waterless hand cleaner. For contact with molten product, do not remove contaminated clothing. Flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. Pack with ice. Seek medical aid.

INHALATION: Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration or oxygen as indicated. Seek medical aid.

INGESTION: If victim is conscious and alert, give 1-2 glasses of water or milk. Induce vomiting using ipecac syrup as directed on the label. After vomiting, the victim may be given a slurry of 100 g of activated charcoal in 8 oz. of water. Seek medical aid.

SECTION V - FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT & METHOD: >93 C (>200 F) PMCC AUTOIGNITION TEMP: NA

FLAMMABLE LIMITS (% BY VOLUME/AIR): LOWER: NA UPPER: NA

TDG FLAMMABILITY CLASSIFICATION: None

EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide, foam or water spray. Water or foam may cause frothing, if molten.

FIRE-FIGHTING PROCEDURES: Wear complete fire service protective equipment, including full-face MSHA/NIOSH approved self-contained breathing apparatus. Use water to cool fire-exposed container/structure/protect personnel. Toxic vapors may be given off in a fire.

FIRE AND EXPLOSION HAZARDS: When heated (fire conditions), vapors/decomposition products may be released forming flammable/explosive mixtures in air. Closed containers may explode when exposed to extreme heat(fire).

SENSITIVITY TO MECHANICAL IMPACT: ND

SENSITIVITY TO STATIC DISCHARGE: ND

SECTION VI - SPILL, LEAK AND DISPOSAL INFORMATION

SPILL OR LEAK PROCEDURES (PRODUCT): Stop leak if no risk involved. Stay upwind. Solidified spills: Shovel into dry containers and cover. Small wet spills: Take up with sand or other noncombustible absorbent material. Flush area with water. Dike large spills for later disposal. Contain runoff from fire control and dilution water.

WASTE DISPOSAL: If disposing in a state other than California, dispose of as an industrial waste in accordance with local, state, and federal regulations. Place in tightly sealed labeled containers. This product contains coal tar constituents, which have been determined by IARC to be a carcinogen. According to California hazardous waste regulations, substances posing a hazard to human health because of carcinogenicity are hazardous wastes. Dispose of as a hazardous waste in the state of California.

SECTION VII - RECOMMENDED EXPOSURE LIMIT/HAZARDOUS INGREDIENTS

EXPOSURE LIMIT (PRODUCT): *For coal tar pitch volatiles, OSHA-PEL is 0.2 mg/m3 averaged over an 8 hour work shift, benzene soluble fraction of total particulate including dust, fumes and mists.

HAZARDOUS INGREDIENTS	CAS NUMBER	%BY WT.	EXPOSURE LIMIT (PPM;MG/M3)		
Coal Tar Pitch	65996-93-2		OSHA-TWA	-	*
Coal Tar Distillate	65996-92-1	100	OSHA-TWA	-	*
Benz(a)anthracene	56-55-3	<1	NONE		
Benzo(b)fluoranthene	205-99-2	<1	NONE		
Benzo(k)fluoranthene	207-08-9	<1	NONE		
Benzo(j)fluoranthene	205-82-3	<0.5	NONE		
Benzo(a)pyrene	50-32-8	<1	NONE		
Dibenzo(a,h)anthracene	53-70-3	<0.5	NONE		
Indeno(1,2,3-cd)pyrene	193-39-5	<0.5	NONE		
Phenanthrene	85-01-8	<2	NONE		

---------- SARA TITLE III SECTION 313 CHEMICALS ----------
(SEE SECTION VII FOR CAS NUMBERS AND PERCENTAGES)

Benz(a)anthracene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(j)fluoranthene
Benzo(a)pyrene
Dibenzo(a,h)anthracene
Indeno(1,2,3-cd)pyrene
Phenanthrene

SECTION VIII - PERSONAL PROTECTION INFORMATION

EYE PROTECTION: Industrial safety glasses, minimum. As necessary to comply with 29 CFR 1910.133 and work area conditions: use side shields, goggles or face

shield.

SKIN PROTECTION: As required, industrial resistant flexible-type gloves. Depending on working conditions, i.e., contact potential, wear impervious protective garments such as head/neck cover, aprons, jackets, pants, coveralls, boots, etc. See Section XIII - Comments for additional information on skin protection recommendations.

RESPIRATORY PROTECTION: Not required under normal use conditions. If ventilation does not maintain inhalation exposures below TLV(PEL), use MSHA/NIOSH approved units as per current 29 CFR1910.134 and manufacturers' "Instructions" and "Warnings". Combination filter/organic vapor cartridges or canister may be used.

VENTILATION: Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits and areas below flammable vapor concentrations. Local exhaust is necessary for use in enclosed or confined spaces. See OSHA Requirement/NIOSH Pub. 80-106 "Working in a Confined Space".

SECTION IX - PERSONAL HANDLING INSTRUCTIONS

HANDLING: Avoid prolonged or repeated breathing of vapors, mists or fumes. Avoid breathing of fumes, mists, or smoke. Observe good personal hygiene practices and recommended procedures. Application of certain protective creams (sun screens for coal tar products) before working/several times during work may be beneficial.

STORAGE: Keep in a closed, labeled container within a cool (well shaded), dry ventilated area. Protect from physical damage. Keep containers closed when material is not in use. Maintain good housekeeping.

OTHER: Not for use or storage in or around the home. DO NOT TAKE INTERNALLY. Do not use until manufacturer's precautions have been read/understood.Wash exposed areas promptly and thoroughly after skin contact and before eating, drinking, using tobacco products or rest rooms.

SECTION X - REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY: None known

INCOMPATIBILITY: none known

HAZARDOUS REACTIONS/DECOMPOSITION/COMBUSTION PRODUCTS: toxic fumes may be emitted when burned

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: none

SECTION XI - PHYSICAL DATA

BOILING POINT: >150 C (>302 F)ibp SPECIFIC GRAVITY: >1.1

MELTING POINT: NA % VOLATILE BY VOL: neglig.

VAPOR PRESSURE: <5mm Hg EVAPORATION RATE(ETHER=1): <1(butyl acet=1)

VAPOR DENSITY(AIR=1):>1 VISCOSITY: ND

SOLUBILITY: negligible (WATER) pH: ND

VOC: NA

COEFFICIENT OF WATER/OIL DISTRIBUTION: negligible in water

APPEARANCE/ODOR: Black viscous liquid with aromatic odor

SECTION XII - TRANSPORT INFORMATION

--------- PRODUCT PACKAGED IN TANK TRUCK ---------

RQ ELEVATED TEMPERATURE LIQUID, N.O.S.
(CONTAINS BENZO(A)PYRENE, DIBENZO(A,H)ANTHRACENE)
CLASS 9 UN3257 PG III
SEALER, ASPHALT SURFACE PAVEMENT, ASPHALT, COAL TAR REFINED OR PETROLEUM BASE
MARKED: HOT 3257

--------- PRODUCT PACKAGED IN DRUM (TIGHT HEAD) ---------

RQ OTHER REGULATED SUBSTANCES,LIQUID,N.O.S.
(CONTAINS BENZO(A)PYRENE, DIBENZO(A,H)ANTHRACENE)
CLASS 9 NA3082 PG III
SEALER, ASPHALT SURFACE PAVEMENT, ASPHALT, COAL TAR REFINED OR PETROLEUM BASE
MARKED: 3082

SECTION XIII - COMMENTS

This product contains coal tar pitch. IARC Monographs (Volume 35) states that there is sufficient evidence that coal tar pitches are carcinogenic in humans. Additionally, there is sufficient evidence that occupational exposure to coal tars as it occurs during the destructive distillation of coal is casually associated with the occurrence of skin cancers in humans.

Persons with a history of liver, kidney, skin or respiratory disease or exposure to materials harmful to these systems are at a greater than normal risk of developing adverse health effects when working with this product.

No known ingredients which occur at greater than 0.1%, other than those listed above, are listed as a carcinogen in the IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, the NTP Annual Report on Carcinogens or OSHA 29 CFR 1910.1001-1047 subpart Z Toxic and Hazardous Substances (Specifically Regulated Substances).

SKIN PROTECTION (protective material): Permeation/degradation values of chemical mixtures cannot be predicted from pure components or chemical classes. Thus, these materials are normally best estimates based on available pure component data. A significant difference in chemical breakthrough time has

been reported for generically similar gloves from different manufacturers (AIHA J., 48, 941-947 1987).

Do not use until manufacturer's precautions have been read/understood. Wash exposed areas promptly and thoroughly after skin contact from working with this product and before eating, drinking, using tobacco products or rest rooms.

Do not wear contact lens without proper eye protection when using this product.

Prepared By: Occupational Health and Product Safety Department

---

REVISION DATE: 10/95 CODE NUMBER: IND001860C9519
SPECIFICATION SHEET NUMBER: TP-1139-5, 1487-2 REPLACES SHEET: IND001860C9518
COMMODITY NUMBER: 21101061

SUPPLIER INFORMATION: Same as manufacturer.

NOTICE: While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Koppers Industries makes no warranty with respect thereto and disclaims all liability from reliance thereon.

SANIFILL NORTHWEST

Special Waste Permit Management Decision

APPROVED

Special Waste Permit No.: 1249

Permit Expiration Date: 10-6-95

Generators Name: Koppers Industries, Inc.

Address of Waste Generation: 7540 N.W. St. Helens Rd

City: Portland State: OR

General Waste Description: Coal tar pitch dust, pavement sealer and bitumen debris

Landfill Action: Disposal of the above described special waste is:

Approved X Disapproved _____ for disposal at Hillsboro Landfill

at the disposal rate of $ 57.86 per Ton $ _____ Per trip min/charge.

Waste Acceptance Mgr. Signature: Charles G. Gray Date: 9-6-94

Precautions, Conditions, or Limitations on Approval: _____

If disapproved, reason for denial of permit: _____

Credit/Billing Information

Accept _____ Reject _____ By: _____

Comments: Billed through Hauler

Landfill Account No. _____

Permit No.: 1249

Approval Expiration: 10-6-95

APPROVED

SANIFILL NORTHWEST

Northern Wasco County Landfill, Hillsboro Landfill, Riverbend Landfill

received 8-31-94

Generator's Special Waste Profile Sheet

IMPORTANT: This form must be completed by a Representative of the Waste Generator. The information on this form must be typed or legibly printed in ink and signed by an Authorized Agent of the Generator. Completed form bearing original signature must be provided **PRIOR TO DISPOSAL.**

1.0 Generator Information

1.1 Generator Name: KOPPERS INDUSTRIES INC.

1.5 Generator's EPA ID No.: ORD027734359

1.2 Site of Waste Generation: 7540 N.W. ST. HELENS RD. PORTLAND, OR

Facility Address: 7540 N.W.ST. HELENS RD. PORTLAND, OR

1.6 Facility Phone: 286-3681

City: PORTLAND State: OR Zip: 97210 (503)

1.3 Technical Contact: AMOS S. KAMERER

1.7 Technical Contact Phone:

Title: PLANT MANAGER (503) 286-3681

1.4 General Site Activity: COAL TAR PITCH PRODUCTS , LOADING AND UNLOADING, STORAGE

2.0 Waste Description

2.1 General Waste Description: COAL TAR PITCH DUST, PAVEMENT SEALER AND BITUMEN DEBRIS

2.2 Process Generating Waste: TRUCK LOADING AND MATERIAL HANDLING (SPILLS)

2.3 Is this Waste "Hazardous Waste" as defined by Federal, State or Local Regulations: ___ Yes X No

2.4 Has this waste ever been "handled" or "Disposed" of as hazardous ___ Yes X No

___ Material X Waste X Disposed of via a "uniform hazardous waste manifest".

If yes, explain

2.4 Waste Generation Rate: ___ Tons 100 Cubic Yards ___ Other:

Per: ___ Day ___ Week ___ Year ___ Other X One Time Disposal? ___ Yes X No.

2.6 Waste will be transported in: ___ Roll Off Boxes X Drums (Type/Size): 55 GL DRUMS

X Dump Trucks ___ Other:

3.0 Waste Properties at Room Temperature

3.1 Physical State

X Solid ___ Semi Solid

___ Powder ___ Liquid

___ Combination: ___ Other:

3.2 Odor: X None ___ Mild ___ Strong

3.3 pH Range: N/A to:

3.4 Color(s): BLACK

3.5 Percent Solid: 100 %

3.6 Flash Point F: ___ None ___ <140° F

___ 140° -199° F X >200° F

RETURN APPLICATION TO:
Hillsboro Landfill, Inc.
3205 SE Minter Bridge Rd.
Hillsboro, Oregon 97123
PH: 503-640-9427
FAX: 503-648-2490

Tim Howadel

RECEIVED
SEP 1 1994
KOPPERS INDS., INC.
PORTLAND, OR

Permit No.: 1249

Approval Expiration:

SANIFILL NORTHWEST

Northern Wasco County Landfill, Hillsboro Landfill, Riverbend Landfill

Generator's Special Waste Profile Sheet

IMPORTANT: This form must be completed by a Representative of the Waste Generator. The information on this form must be typed or legibly printed in ink and signed by an Authorized Agent of the Generator. Completed form bearing original signature must be provided **PRIOR TO DISPOSAL.**

1.0 Generator Information

1.1 Generator Name: KOPPERS INDUSTRIES INC.

1.5 Generator's EPA ID No.: ORD027734359

1.2 Site of Waste Generation: 7540 N.W. ST. HELENS RD. PORTLAND, OR

Facility Address: 7540 N.W.ST. HELENS RD. PORTLAND, OR

1.6 Facility Phone: 286-3681

City: PORTLAND State: OR Zip: 97210 (503)

1.3 Technical Contact: AMOS S. KAMERER

1.7 Technical Contact Phone:

Title: PLANT MANAGER (503) 286-3681

1.4 General Site Activity: COAL TAR PITCH PRODUCTS , LOADING AND UNLOADING, STORAGE

2.0 Waste Description

2.1 General Waste Description: COAL TAR PITCH DUST, PAVEMENT SEALER AND BITUMEN DEBRIS

2.2 Process Generating Waste: TRUCK LOADING AND MATERIAL HANDLING (SPILLS)

2.3 Is this Waste "Hazardous Waste" as defined by Federal, State or Local Regulations: ___ Yes X No

2.4 Has this waste ever been "handled" or "Disposed" of as hazardous ___ Yes X No

___ Material X Waste X Disposed of via a "uniform hazardous waste manifest".

If yes, explain

2.4 Waste Generation Rate: ___ Tons 100 Cubic Yards ___ Other:

Per: ___ Day ___ Week ___ Year ___ Other X One Time Disposal? ___ Yes X No.

2.6 Waste will be transported in: ___ Roll Off Boxes X Drums (Type/Size): 55 GL DRUMS

X Dump Trucks ___ Other:

3.0 Waste Properties at Room Temperature

3.1 Physical State

X Solid ___ Semi Solid

___ Powder ___ Liquid

___ Combination: ___ Other:

3.2 Odor: X None ___ Mild ___ Strong

3.3 pH Range: N/A to:

3.4 Color(s): BLACK

3.5 Percent Solid: 100 %

3.6 Flash Point F: ___ None ___ <140° F

___ 140° -199° F X >200° F

RETURN APPLICATION TO:
Hillsboro Landfill, Inc.
3205 SE Minter Bridge Rd.
Hillsboro, Oregon 97123
PH: 503-640-9427
FAX: 503-648-2490

4.0 Reactivity

____ Reactive with Water	____ Alkaline Reactive	____ Autopolymerizable	____ Acid Reactive
____ Explosive	____ Thermally Sensitive	____ Shock Sensitive	X None of the Above

5.0 Waste Contents

This Waste Contains:

____ Free Liquids	____ Dioxins	____ Pathogens	____ PCBs
____ Free Cyanide	____ Organic Solvents	____ OSHA Substances	
____ Free Sulfide	____ Used or Waste Oils	____ Biological Materials	
____ Free Ammonia	____ Gasoline/Diesel	____ Radioactive Materials	

X None of the Above

*"WASTE" (OTHER REGULATED SUBSTANCES, SOLID N.O.S. CLASS 9, NA3077 PG III, RQ (CONTAINS BENZO (A)PYRENE AND DIBENZO (A,H)ANTHRACENE)

6.0 Transportation

6.1 Proper U.S. DOT Shipping Name: SEE ABOVE *

6.2 U.S. DOT Hazard Class: 9

____ This Waste is NOT a DOT Hazardous Material

6.3 Transporter Name: METROPOLITAN DISPOSAL
Address: P.O. BOX 11229 PORTLAND, OR 97211

6.4 Technical Contact: AMOS S. KAMERER
Phone: 503-286-3681

7.0 Attached Information

7.1 ANALYTICAL (check all that apply)

____ THP Gas/Diesel/Oil	____ BTEX	____ TPH-HCID	____ TCLP Metals
____ Semivolatile Organics	____ Volatile Organics	____ Herbicides/Pesticides	____ TCLP Volatiles

7.2 X MSDS X Generator Certification ____ Other: ____

8.0 Billing Information

8.1 Bill To: KOPPERS INDUSTRIES INC.
7540 N.W. ST. HELENS RD.
PORTLAND, OR 97210

Attention: ACCOUNTS PAYABLE
Phone No.: 503-286-3681
P.O.#
Do you have an account with us?

9.0 Generator Certification

I hereby certify that all information supplied is truly representative of the above mentioned waste. I agree to notify Sanifill Northwest if there is a change in the waste stream information submitted for acceptance. I also authorize Sanifill Northwest to periodically reanalyze the waste, at my expense. I also certify that all samples were collected according to EPA Method SW-846 and the samples were analyzed by a Certified Laboratory and that the appropriate chain of custody was attached. **I further certify that the wastes submitted for disposal are not designated as Hazardous Waste by the USEPA or state regulations.**

Printed Name AMOS S. KAMERER Company Name KOPPERS INDUSTRIES INC.

Signature _____ Title PLANT MANAGER Date 8/29/94

SANIFILL NORTHWEST

HILLSBORO LANDFILL - RIVERBEND LANDFILL - NORTH WASCO COUNTY L.F.

GENERATOR'S SPECIAL WASTE PROFILE INSTRUCTION SHEET

Generator Information - 1.0

Section 1.1 - Enter name of the facility where the waste is generated.
1.2 - Address where the waste is coming from.
1.3 - Name of person who can answer technical questions.
1.4 - General nature of business activity where the waste came from.
1.5 - Enter DEQ or state Hazardous Waste Generator number (if applicable).
1.6 - Enter generator's phone number, if available.
1.7 - Phone number of technical contact person.

Waste Description - 2.0

Section 2.1 - Enter a name generally descriptive of this waste (e.g. contaminated soil, pretreatment sludge, ash)
2.2 - List the specific process/operation or source that generates the waste (e.g. spill cleanup, pretreatment system, leaking diesel tank, industrial sump)
2.3 - Answer yes or no.
2.4 - If answer is yes, explain circumstances
2.5 - Indicate approximate amounts of waste to be disposed and indicated whether you will be generating the waste on an ongoing basis.
2.6 - Indicate type of vehicle that will transport waste.

Waste Properties at Room Temperature - 3.0

Section 3.1 - If the choices provided do not apply, a descriptive phrase may be entered after "Other" (e.g., gas).
3.2 - If the waste has a known incidental odor, then describe it (e.g., acrid, pungent, solvent, sweet).
3.3 - Indicate for liquid portions of the waste. For solid or organic liquid wastes, indicate the pH of 10% aqueous solution of the waste, if applicable. Write N/A for non-water soluble materials.
3.4 - Describe color of the waste (e.g., blue, transparent)
3.5 - List percentage of solids.
3.6 - Indicate the flash point.

Reactivity - 4.0

4.0 - Check any item that applies, or check none of above.

Waste Contents - 5.0

5.0 - Check any item that applies or none of the above.

Transportation - 6.0

6.1 - Indicate proper U.S. DOT Shipping Name.
6.2 - Indicate U.S. DOT Hazard Class.
6.3 - Name of transporter, if known, and address.
6.4 - Name of contact person and telephone number.

Attached Information - 7.0

7.1 - Check all analytical tests that have been completed and attached to this waste profile application.
7.2 - Check all listed items, or write in under "Other" what is being attached.

Billing Information - 8.0

8.1 - Indicate to whom you want to bill the cost of disposal to. Be sure you have set-up a charge account and that it has been approved by Sanifill before you bring the waste in for disposal.

Generator Certification - 9.0

9.0 - By signing this Special Waste Profile Sheet the generator certifies that the statements made in this application are true and accurate with respect to the waste streams listed.

An authorized employee of the generator or the generator must sign the Generator's Special Waste Profile Sheet.

IMPORTANT NOTICE

Mail all applications to Hillsboro Landfill, Inc., 3205 S.E. Minter Bridge Rd., Hillsboro, OR 97123. Fax number is 648-2490. Telephone number is 640-9427. There is no application fee.

HILLSBORO LANDFILL, INC.
NOTICE TO SPECIAL WASTE PERMITEES

The enclosed Special Waste Permit contains several important items which you should be aware of. Some of those items are as follows:

1. Each permit is assigned a permit number and has an expiration date. You will find both of these items in the upper right hand corner of the Special Waste Permit Management Decision Form and the upper left hand corner of Generator's Special Waste Profile Sheet.

2. The hauler of transporter of the waste to the landfill must have a copy of the permit or know what the permit number is. This item is very important as it will help expedite processing at the gatehouse.

3. Appointments are not required unless a notation on your permit requires them.

4. Most permits will have a 90 day permit period. If you find you will need more time than this, please notify us prior to the expiration date so we have time to process your extension.

5. If you find that you are going to exceed the quantity noted in the permit, please let us know as soon as possible.

6. Please be aware that we periodically, randomly collect samples of incoming loads for laboratory analysis.

7. We appreciate your business and look forward to working with you in the future.

8. IMPORTANT! If you intend to pay by other than cash or company check at the time of disposal, you must have established a charge account with Hillsboro Landfill, Inc. prior to bringing in the first load of waste.

Hillsboro Landfill, Inc.

August 18, 1994

T.J. Turner
General Foreman
Koppers Industries, Inc.
7540 N.W. St. Helens Rd.
Portland, OR 97210-3663

Re: Special Waste Permit No. 1249

Dear Mr. Turner:

We received your letter dated August 11, 1994 requesting permission to dispose of some off-spec pavement sealer and coal tar bitumen.

In our telephone discussion on these wastes, you indicated that the amounts you currently have for disposal are approximately (1) 55 gallon of each product. You stated that the wastes are solids and contain some gravel/soil debris since these wastes are generated from spillages of the product on the ground.

Permission is hereby granted to dispose of these waste materials under Special Waste Permit No. 1249.

Sincerely,

Charles H. Gray

Charles H. Gray
Technical Manager

RECEIVED

AUG 2 [illegible] 1994

KOPPERS INDS., INC.
PORTLAND, OR

SANIFILL of OREGON

Permit No.:

Approval Expiration:

Northern Wasco County Landfill, Hillsboro Landfill, Riverbend Landfill

Generator's Special Waste Profile Sheet

IMPORTANT: This form must be completed by a Representative of the Waste Generator. The information on this form must be typed or legibly printed in ink and signed by an Authorized Agent of the Generator. Completed form bearing original signature must be provided **PRIOR TO DISPOSAL.**

1.0 Generator Information

1.1 Generator Name: KOPPERS INDUSTRIES, INC.

1.2 Site of Waste Generation: PORTLAND TERMINAL
Facility Address: 7540 NW ST HELENS RD
City: PORTLAND State: OR Zip: 97210

1.3 Technical Contact: AMOS KAMERER
Title: _____

1.4 General Site Activity: STORAGE, LOADING AND UNLOADING

1.5 State Registration No.: N/A

1.6 Generator's EPA ID No.: ORD027734359

1.7 Facility Phone: (503) 286-3681

1.8 Technical Contact Phone: (503) 286-3681

2.0 Waste Description

2.1 General Waste Description: COAL TAR PITCH DUST AND DEBRIS

2.2 Process Generating Waste: TRUCK LOADING AND MATERIAL HANDLING (SPILLS)

2.3 Is this Waste "Hazardous Waste" as defined by Federal, State or Local Regulations: ____ Yes __X__ No

2.4 Has this waste ever been "Handled, or "Disposed" of as a hazardous ____ Yes __X__ No
____ material __X__ waste __X__ disposed of via a "uniform hazardous waste manifiest".
If yes, explain _____

2.5 Waste Generation Rate: ____ Tons 100 Cubic Yards ____ Other: _____
Per: ____ Day ____ Week ____ Year __X__ Other ____ One Time Disposal? ____ Yes __X__ No

2.6 Waste will be transproted in : __X__ Roll Off Boxes ____ Drums (Type/Size): _____
__X__ Dump Trucks ____ Other: _____

3.0 Waste Properties at Room Temperature

3.1 Physical State
__X__ Solid ____ Semi-Solid
____ Powder ____ Liquid
____ Combination: _____ Other: _____

3.2 Odor: __X__ None ____ Mild ____ Strong

3.3 pH Range: N/A to: _____

3.4 Color(s): BLACK

3.5 Percent Solid: 100 %

3.6 Flash Point F°: ____ None ____ <140° F
____ 140° - 199° F __X__ ≥ 200° F

RETURN APPLICATION TO:
Hillsboro Landfill, Inc.
3205 SE Minter Bridge Rd.
Hillsboro, Oregon 97123
PH: 503-640-9427
FAX: 503-648-2490

4.0 Reactivity

_____ Reactive with Water _____ Alkaline Reactive _____ Autopolymerizable _____ Acid Reactive
_____ Explosive _____ Thermally Sensitive _____ Shock Sensitive _X_ None of the Above

5.0 Waste Contents

This Waste Contains:

_____ Free Liquids _____ Dioxins _____ Pathogens _____ PCBs
_____ Free Cyanide _____ Organic Solvents _____ OSHA Substances
_____ Free Sulfide _____ Used or Waste Oils _____ Biological Materials
_____ Free Ammonia _____ Etiological Agents _____ Radioactive Materials
_X_ None of the Above

* "WASTE" [OTHER REGULATED SUBSTANCES, SOLID N.O.S., 9, NA3077 PG III, RQ, (CONTAINS BENZO(A)PYRENE AND DEBENZO(A,H)ANTHRACENE)

6.0 Transportation

6.1 Proper U.S. DOT Shipping Name: SEE ABOVE *

6.2 U.S. DOT Hazard Class: 9

6.3 CERCLA Reportable Quantity: 163 LBS

_____ This Waste is NOT a DOT Hazardous Material

6.4 Transporter Name: METROPOLITAN DISPOSAL
Address: P.O. BOX 11229
PORTLAND, OR 97211

6.5 Technical Contact: AMOS KAMERER
Phone: (503)286-3681

7.0 Attached Information

7.1 ANALYTICAL (Check all that apply)

_____ TPH Gas/Diesel/Oil _____ BTEX _____ TPH-HCID _____ TCLP Metals
_____ Semivolatile Organics _____ Volatile Organics _____ Herbicides/Pesticides _____ TCLP Volatiles

7.2 _X_ MSDS _X_ Generator Certification _____ Other: _____

8.0 Billing Information

8.1 Bill To: KOPPERS INDUSTRIES, INC.
7540 NW ST HELENS ROAD
PORTLAND, OR 97210-3663

Attention: AMOS KAMERER
Phone No.: 503-286-3681
P.O. #: _____
Job #: _____

9.0 Generator Certification

I hereby certify that all information supplied is truly representative of the above mentioned waste. I agree to notify Sanifill of Oregon if there is a change in the waste stream information submitted for acceptance. I also authorize Sanifill of Oregon to periodically reanalyze the waste, at my expense. I also certify that all samples were collected according to EPA Method SW-846 and that samples were analyzed by a Certified Laboratory and that the appropriate chain of custody was attached. **I further certify that the wastes submitted for disposal are not designated as Hazardous Waste by the USEPA or state regulations.**

Printed Name AMOS KAMERER Company Name KOPPERS INDUSTRIES, INC.

Signature _____ Title Plant Mgr Date 9/15/93

cc: Al Shoemaker

file

SANIFILL of OREGON

Special Waste Permit Management Decision

APPROVED

Special Waste Permit No.: 1249

Permit Expiration Date: 10-6-94

Generator Name: Koppers Industries, Inc.

Address of Waste Generation: 7540 NW St. Helens Rd

City: Portland State: OR

General Waste Description: Coal tar pitch dust and debris

Landfill Action: Disposal of the above described special waste is:

Approved X Disapproved _____ for disposal at Hillsboro Landfill

at the disposal rate of $59.04 per Ton $ _____ per trip min/charge.

Waste Acceptance Mgr. Signature: Charles A. Gray Date: 9-22-93

Precautions, Conditions, or Limitations on Approval: None

If disapproved, reason for denial of permit: _____

Credit/Billing Information

Accept _____ Reject _____ By: _____

Comments: Billed through Hauler

Landfill Account No. _____

Permit No.: 1249

APPROVED

SANIFILL of OREGON

Northern Wasco County Landfill, Hillsboro Landfill, Riverbend Landfill

Approval Expiration: 10-6-94

received 9-17-93

Generator's Special Waste Profile Sheet

IMPORTANT: This form must be completed by a Representative of the Waste Generator. The information on this form must be typed or legibly printed in ink and signed by an Authorized Agent of the Generator. Completed form bearing original signature must be provided **PRIOR TO DISPOSAL.**

1.0 Generator Information

1.1 Generator Name: KOPPERS INDUSTRIES, INC.

1.2 Site of Waste Generation: PORTLAND TERMINAL
Facility Address: 7540 NW ST HELENS RD
City: PORTLAND State: OR Zip: 97210

1.3 Technical Contact: AMOS KAMERER
Title: _____

1.4 General Site Activity: STORAGE, LOADING AND UNLOADING

1.5 State Registration No.: N/A

1.6 Generator's EPA ID No.: ORD027734359

1.7 Facility Phone: (503) 286-3681

1.8 Technical Contact Phone: (503) 286-3681

2.0 Waste Description

2.1 General Waste Description: COAL TAR PITCH DUST AND DEBRIS

2.2 Process Generating Waste: TRUCK LOADING AND MATERIAL HANDLING (SPILLS)

2.3 Is this Waste "Hazardous Waste" as defined by Federal, State or Local Regulations: ____ Yes __X__ No

2.4 Has this waste ever been "Handled or "Disposed" of as a hazardous ____ Yes __X__ No
____ material __X__ waste __X__ disposed of via a "uniform hazardous waste manifest".
If yes, explain _____

2.5 Waste Generation Rate: ____ Tons 100 Cubic Yards ____ Other: _____
Per: ____ Day ____ Week ____ Year __X__ Other ____ One Time Disposal? ____ Yes __X__ No

2.6 Waste will be transproted in : __X__ Roll Off Boxes ____ Drums (Type/Size): _____
__X__ Dump Trucks ____ Other: _____

3.0 Waste Properties at Room Temperature

3.1 Physical State
__X__ Solid ____ Semi-Solid
____ Powder ____ Liquid
____ Combination: _____ Other: _____

3.2 Odor: __X__ None ____ Mild ____ Strong

3.3 pH Range: N/A to: _____

3.4 Color(s): BLACK

3.5 Percent Solid: 100 %

3.6 Flash Point F°: ____ None ____ <140° F
____ 140° - 199° F __X__ ≥ 200° F

RETURN APPLICATION TO:
Hillsboro Landfill, Inc.
3205 SE Minter Bridge Rd.
Hillsboro, Oregon 97123
PH: 503-640-9427
FAX: 503-648-2490

RECEIVED

OCT 13 1993

KOPPERS INDS., INC.
PORTLAND, OR

HILLSBORO LANDFILL, INC.
3205 S.E. Minter Bridge Road
Hillsboro, OR 97123
Phone: 503-640-9427 FAX: 648-2490

Application to Dispose of Special Wastes

INSTRUCTIONS: Please read important sheet attached. Type, or print heavily in ink. The person responsible for accuracy of information must sign. Return copy of completed application and any supporting information to Hillsboro Landfill, Inc. along with a check for the $25 application fee.

Applicant's Name KOPPERS INDUSTRIES INC

Address 7540 NW ST HELENS RD City PORTLAND Zip 97210

Contact Person JOHN A. OXFORD Phone 286-3681

Job Site Address _____ City _____
(if different than applicant's)

Office use only
Permit no. 1249
Expires 10-6-93

received
10-5-92 #218690

Description of Special Waste (waste composition and physical, chemical, manufacturing process from which waste originated)
COAL TAR PITCH DUST

One time disposal? ____yes X no Disposal frequency (if more than one time) 3 TIMES PER YEAR ?

Quantity; (gallons, drums, lbs., cubic yards) 20 YARDS Quantity per year 100 YARDS ?

Hazardous ____yes X no How did you determine whether hazardous or not? Material Safety Data Sheet YES

test results _____ other TELE BETWEEN CHARLES GRAY & KOPPERS TOXICOLOGY DEPARTMENT (enclosed documents)

Handling and spill clean up directions ON MSDS

Transporter METROPOLITAN DISPOSAL

Previous permit for this waste, if any. Number N/A

NO SEALED EMPTY CONTAINERS WILL BE ACCEPTED. If empty containers only describe materials originally in container and whether they have been rinsed.

Certificate of Accuracy of Description: This is to certify that the above described materials are properly classified, identified, packaged, marked, labeled, cleansed and prepared as indicated above.

Signature John A Oxford (PLANT MANAGER) Date 10-2-92

HILLSBORO LANDFILL ACTION. Disposal of the above described Special Waste is

Approved X Disapproved _____ for disposal at the Hillsboro Landfill.

at the disposal rate of $ 58.50 per Ton $ _____ per trip minimum charge.

Signature Charles W. Gray Date 10-6-92

GENERAL INSTRUCTIONS: Appointment may be required 24 HOURS prior to each disposal. Cash on disposal, business check or have prior account established. To establish an account or to call for an apporintment, Telephone 640-9427

SPECIAL INSTRUCTIONS _____

NOTE: Disposal rates may be subject to change without prior notice.

Hillsboro Landfill, Inc.

August 11, 1993

John A. Oxford
Koppers Industries, Inc.
7540 NW St. Helens Rd.
Portland, OR 97210

Re: Special Waste Permit No. 1249

Dear Mr. Oxford:

The Special Waste Disposal permit which we issued to your company is expiring soon. A copy of the current permit is enclosed for your reference. Please complete the enclosed application and return it to us. We will review your application for renewal for another one-year period.

Your prompt action will be appreciated. Please feel free to call me at 640-9427, if you should have any questions.

Sincerely,

Charles H. Gray

Charles H. Gray
Waste Acceptance Supervisor

Enclosure(s)

3205 SE Minter Bridge Road • Hillsboro, OR 97123 • 503/640-9427 • Fax 503/648-2490

RECEIVED
AUG 18 1993
KOPPERS INDS., INC.
PORTLAND, OR

RECEIVED

HILLSBORO LANDFILL, INC.
3205 S.E. Minter Bridge Road
Hillsboro, OR 97123
Phone: 503-640-9427 FAX: 648-2491

OCT - 7 1992

KOPPERS INDS. INC.
PORTLAND, OR

Application to Dispose of Special Wastes

INSTRUCTIONS: Please read important sheet attached. Type, or print heavily in ink. The person responsible for accuracy of information must sign. Return copy of completed application and any supporting information to Hillsboro Landfill, Inc. along with a check for the $25 application fee.

Applicant's Name KOPPERS INDUSTRIES INC

Address 7540 NW ST HELENS RD City PORTLAND Zip 97210

Contact Person JOHN A. OXFORD Phone 286-3681

Job Site Address _____ City _____
(if different than applicant's)

Office use only
Permit no. 1249
Expires 10-6-93

received
10-5-92 #218690

Description of Special Waste (waste composition and physical, chemical, manufacturing process from which waste originated)
COAL TAR PITCH DUST

One time disposal? ____yes X no Disposal frequency (if more than one time) 3 TIMES PER YEAR ?

Quantity; (gallons, drums, lbs., cubic yards) 20 YARDS Quantity per year 100 YARDS ?

Hazardous ____yes X no How did you determine whether hazardous or not? Material Safety Data Sheet YES

test results _____ other TELE BETWEEN CHARLES GRAY & KOPPERS (enclosed documents)
TOXICOLOGY DEPARTMENT

Handling and spill clean up directions ON MSDS

Transporter METROPOLITAN DISPOSAL

Previous permit for this waste, if any. Number N/A

NO SEALED EMPTY CONTAINERS WILL BE ACCEPTED. If empty containers only describe materials originally in container and whether they have been rinsed.

Certificate of Accuracy of Description: This is to certify that the above described materials are properly classified, identified, packaged, marked, labeled, cleansed and prepared as indicated above.

Signature John A Oxford (PLANT mANAGER) Date 10-2-92

HILLSBORO LANDFILL ACTION. Disposal of the above described Special Waste is

Approved X Disapproved _____ for disposal at the Hillsboro Landfill.

at the disposal rate of $ 58.50 per Ton $ _____ per trip minimum charge.

Signature Charles W. Gray Date 10-6-92

GENERAL INSTRUCTIONS: Appointment may be required 24 HOURS prior to each disposal. Cash on disposal, business check or have prior account established. To establish an account or to call for an apporintment, Telephone 640-9427

SPECIAL INSTRUCTIONS _____

NOTE: Disposal rates may be subject to change without prior notice.

HILLSBORO LANDFILL, INC.
NOTICE TO SPECIAL WASTE PERMITEES

The enclosed Special Waste Permit contains several important items which you should be aware of. Some of those items are as follows:

1. Each permit is assigned a permit number and has an expiration date. You will find both of these item in the upper right hand corner of the permit (Office use only area).

2. The hauler of transporter of the waste to the landfill must have a copy of the permit or know what the permit number is. This item is very important as it will help expedite processing at the gatehouse.

3. Appointments are not required unless a notation on your permit requires them.

4. Most permits will have a 90 day permit period. If you find you will need more time than this, please notify us prior to the expiration date so we have time to process your extension.

5. If you find that you are going to exceed the quantity noted in the permit, please let us know as soon as possible.

6. Please be aware that we periodically, randomly collect samples of incoming loads for laboratory analysis.

7. We appreciate your business and look forward to working with you in the future.

8. IMPORTANT! If you intend to pay by other than cash or company check at the time of disposal, you must have established a charge account with Hillsboro Landfill, Inc. prior to bringing in the first load of waste.

RECEIVED
OCT - 7 1992
KOPPERS INDS., INC.
PORTLAND, OR

4.0 Reactivity

___ Reactive with Water	___ Alkaline Reactive	___ Autopolymerizable	___ Acid Reactive
___ Explosive	___ Thermally Sensitive	___ Shock Sensitive	X None of the Above

5.0 Waste Contents

This Waste Contains: ★ "WASTE" [OTHER REGULATED SUBSTANCES, SOLID, NOS., 9, NA5077, PGIII, RQ, (CONTAINS BENZO(a)PYRENE + DIBENZO(a,h)ANTHRACENE)]

___ Free Liquids	___ Dioxins	___ Pathogens	___ PCBs
___ Free Cyanide	___ Organic Solvents	___ OSHA Substances	
___ Free Sulfide	___ Used or Waste Oils	___ Biological Materials	
___ Free Ammonia	___ Etiological Agents	___ Radioactive Materials	
X None of the Above			

Need Amos to check this ★

6.0 Transportation

6.1 Proper U.S. DOT Shipping Name: SEE ABOVE ★

6.2 U.S. DOT Hazard Class: 9

6.3 CERCLA Reportable Quantity: 163 LBS

___ This Waste is NOT a DOT Hazardous Material

6.4 Transporter Name: METROPOLITAN DISPOSAL

Address:

6.5 Technical Contact: AMOS KAMERER

Phone: 503-286-3681

Fill this in if you send an MSDS with application

7.0 Attached Information

7.1 ANALYTICAL (Check all that apply)

___ TPH Gas/Diesel/Oil	___ BTEX	___ TPH-HCID	___ TCLP Metals
X Semivolatile Organics	___ Volatile Organics	___ Herbicides/Pesticides	___ TCLP Volatiles

7.2 X MSDS X Generator Certification ___ Other:

8.0 Billing Information

8.1 Bill To: KOPPERS INDUSTRIES INC

~~KOPPERS TERMINAL~~

7540 NW ST HELENS RD

PORTLAND OR 97210-3663

Attention: AMOS KAMERER

Phone No.: 503-286-3681

P.O. #:

Job #:

Sign + Date

9.0 Generator Certification

I hereby certify that all information supplied is truly representative of the above mentioned waste. I agree to notify Sanifill of Oregon if there is a change in the waste stream information submitted for acceptance. I also authorize Sanifill of Oregon to periodically reanalyze the waste, at my expense. I also certify that all samples were collected according to EPA Method SW-846 and that samples were analyzed by a Certified Laboratory and that the appropriate chain of custody was attached. I further certify that the wastes submitted for disposal are not designated as Hazardous Waste by the USEPA or state regulations.

Printed Name AMOS KAMERER Company Name KOPPERS INDUSTRIES INC.

Signature X Title X Date X

SANIFILL of OREGON

Permit No.:

Approval Expiration:

Northern Wasco County Landfill, Hillsboro Landfill, Riverbend Landfill

Generator's Special Waste Profile Sheet

IMPORTANT: This form must be completed by a Representative of the Waste Generator. The information on this form must be typed or legibly printed in ink and signed by an Authorized Agent of the Generator. Completed form bearing original signature must be provided PRIOR TO DISPOSAL.

1.0 Generator Information

1.1 Generator Name: KOPPERS INDUSTRIES INC

1.2 Site of Waste Generation: PORTLAND TERMINAL
Facility Address: 7540 NW ST HELENS RD
City: PORTLAND State: OR Zip: 97210

1.3 Technical Contact: AMOS KAMERER
Title:

1.4 General Site Activity: STORAGE, LOADING & UNLOADING

1.5 State Regisuration No.: N/A

1.6 Generator's EPA ID No.: ORD027734359

1.7 Facility Phone: (503) 286-3681

1.8 Technical Contact Phone: (503) 286-3681

2.0 Waste Description

2.1 General Waste Description: COAL TAR PITCH DUST AND DEBRIS

2.2 Process Generating Waste: TRUCK LOADING AND MATERIAL HANDLING (SPILLS)

2.3 Is this Waste "Hazardous Waste" as defined by Federal, State or Local Regulations: ____ Yes X No

2.4 Has this waste ever been "Handled. or "Disposed" of as a hazardous ____ Yes X No
____ material X waste X disposed of via a "uniform hazardous waste manifest".
If yes, explain

2.5 Waste Generation Rate: ____ Tons 100 Cubic Yards ____ Other:
Per: ____ Day ____ Week X Year ____ Other ____ One Time Disposal? ____ Yes X No

2.6 Waste will be transproted in : X Roll Off Boxes ____ Drums (Type/Size):
X Dump Trucks ____ Other:

3.0 Waste Properties at Room Temperature

3.1 Physical State
X Solid ____ Semi-Solid
____ Powder ____ Liquid
____ Combination: ____ Other: ____

3.2 Odor: X None ____ Mild ____ Strong

3.3 pH Range: NA to:

3.4 Color(s): BLACK

3.5 Percent Solid: 100 %

3.6 Flash Point F°: ____ None ____ <140° F
____ 140° - 199° F X ≥ 200° F

RETURN APPLICATION TO:
Hillsboro Landfill, Inc.
3205 SE Minter Bridge Rd.
Hillsboro, Oregon 97123
PH: 503-640-9427
FAX: 503-648-2490

FILE : PORTLAND ENVIRONMENTAL

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL MANAGEMENT

RECEIVED
DEC 14 1999
KOPPERS INDS, INC.
PORTLAND OR

December 14, 1999

Mr. Eric Blischke
Department of Environmental Quality
Voluntary Cleanup and Site Assessment Section
811 SW 6th Avenue
Portland Oregon 97204

HAI Project #2708

SUBJECT: Proposed Assessment Plan, Above-Ground Storage Tank Support Pilings, Koppers Lease Area, Northwest Natural-Gasco Facility, 7900 NW St. Helens Road, Portland, Oregon

Dear Mr. Blischke:

In correspondence dated October 1, 1999 (Blischke to Hart), you requested that Northwest Natural prepare a plan to assess the source of high benzene and polynuclear aromatic hydrocarbon (PAH) concentrations identified in monitoring well MW-15-50, installed within the upper portion of the Alluvial Sand water bearing zone (WBZ) immediately down-gradient of pilings recently installed to the bedrock surface to support Koppers new coal tar pitch above-ground storage tank.

As indicated in your letter of October 1, 1999, you stated that the identification of contamination at the MW-15-50 well location is indicative that contaminants were either dragged down with the recently installed pilings or that a conduit was opened up through which contaminants from the Surficial Fill WBZ may now migrate to the underlying Alluvial Sand WBZ.

Although piling-induced contamination within the Alluvial Sand WBZ, as described above, is a possibility, sufficient data do not exist at this time to support this conclusion with sufficient certainty. For example, since we do not have the benefit of baseline data, it is similarly possible that the contamination identified within the MW-15-50 well was pre-existing.

Based on the uncertainty related to the contaminant release mechanism, the objective of the assessment plan described herein is to allow the determination of the source for the elevated contaminant concentrations identified at the MW-15-50 monitoring well location. Specifically, a determination must be made as to whether these impacts: (1) pre-date the installation of tank foundation pilings; (2) are the result of limited piling drag-down of shallow contamination into the Alluvial Sand WBZ; or (3) are the result of the pilings acting as an on-going conduit for the continued migration of shallow contamination into the Alluvial Sand WBZ. The preceding determination will be necessary in order to evaluate whether tank installation procedures have exacerbated existing contamination at the site.

In order to make the preceding determination, it is proposed that monitoring wells MW-15-50, MW-15-66, and MW-14-110 (all down-gradient of the foundation pilings) be monitored on a quarterly sampling frequency as proposed in prior correspondence dated October 28, 1999 (Ede to Blischke). The proposed monitoring will allow for identification of concentration trends at these three wells, thereby providing the necessary data to determine the type/mechanism of the contaminant source currently identified at the MW-15-50 location and/or to evaluate whether other investigative techniques will be necessary to make this determination.

434 NW SIXTH AVENUE, SUITE 203 - PORTLAND, OREGON 97209-3600
503/796-0717 OFFICE • 503/227-2209 FAX

Recycled/Recyclable

If contaminant concentrations continue to decline at both the MW-15-50 and MW-15-66 locations, then it can be concluded that contaminant drag-down was the likely source and that only further monitoring is necessary. However, if concentrations increase or stay the same at well MW-15-50, then further evaluation, likely involving the collection of depth-discrete groundwater samples at various locations, will likely be recommended.

Based on the preceding, it is proposed that water quality trends at the referenced wells be evaluated to make a determination as to contaminant source mechanism after completing data collection activities for the period of one year (i.e., until August 2000). Once this determination is made, it is expected that DEQ will then issue a decision regarding the removal of the current moratorium on further tank construction activities at the site.

If there are any comments or questions, please contact either the undersigned.

Sincerely,

Robert Ede
Sr. Project Manager

c: Ms. Sandra Hart, Northwest Natural
Mr. Amos Kamerer, Koppers Industries
Mr. Richard Bach, Stoel Rives, LLP
Mr. Tom Schadt, Anchor Environmental LLC

Post-it® Fax Note 7671	Date 12/16/99	# of pages ▶ 2
To T. Dietz	From Amos	
Co./Dept. T. Self	Co.	
Phone # M. Cilley	Phone #	F.Y.I.
Fax # B. Meisinger	Fax #	

FILE: PORTLAND ENVIRONMENTAL

Rebecca Paul - Environmental Specialist
Oregon Department of Environmental Quality - Northwest Region
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201-4987

July 9,1999

Re: HW-Mulnomah County
Koppers Industries, Inc.
ORD 02773459
HWR-HW-99-042

Dear Ms. Paul:

In response to your letter of June 28, 1999, which was received on June 30, 1999, we offer the following responses.

As a preliminary matter, we respectfully controvert the third sentence in your letter, in which you state, "There were two drums that you have identified as being waste, however, you have not supplied documentation to demonstrate an adequate waste determination." The part of this sentence that we controvert is your allegation that we admitted that these drums contained waste. These drums do not contain waste and at no time have we claimed they contained waste. One drum had previously contained an environmentally friendly citrus-based Chemcoa brand cleaning material. When this drum was empty, it was cleaned, and recycled for use as a used oil drum. The other drum contained an aluminum brightener pre-wash material. The aluminum brightener pre-wash material is not a waste and used oil is specifically exempted from being a hazardous waste.

In addition, we also respectfully controvert the fourth sentence in your letter, which in part states, " . . . and one drum contained used oil and ZEP cleaner, which you now claim, has used oil." At no time have we claimed or otherwise suggested that any single drum contained both ZEP cleaner and used oil. As we explained in Paragraphs (a) and (d) of our letter of June 25, 1999; one drum contains a citrus-based cleaning material manufactured by ZEP that is used in the plant; and one drum previously contained a citrus-based cleaner from the Chemcoa company and this empty drum was cleaned and recycled into a used oil drum. As we explained in our letter of June 25, 1999 and as indicated in a photograph sent with that letter, this drum has been properly labeled in accordance with all applicable used oil regulations.

In regard to the four points raised on page two of your letter, we offer the following comments.

1) Because the two drums that you have erroneously alleged contained waste in fact do not contain waste, there is no need to conduct a waste determination. In regard to the drum that contained 592 REACT, this drum does not contain used material, but rather virgin aluminum brightener pre-wash material. Because of the conditional nature of your request, we will not conduct a TCLP metal test on this material because it has never been used to clean metals. When this material is removed from the drum it is not returned to the drum for reuse. So, all the material in the drum is unused and as such has never been used to cleaned metal.

2) As discussed above, we respectfully disagree with your allegation that one drum contained both Chemcoa brand citrus-based cleaning material and used oil. When the Chemcoa drum was empty, it was cleaned, labeled and recycled as a used oil drum. Because the used oil was not mixed with the Chemcoa cleaner, there is no need to conduct the tests you described in your letter. Further, it is unclear what purpose such testing would serve. Pursuant to federal regulation, used oil is exempt from regulation as a hazardous waste. If you still wish for the used oil to be tested to demonstrate that it has not been mixed with the Chemcoa cleaner, we will do so. However, we are uncertain as to what analytical tests could be conducted to confirm this. The tests suggested in your letter, flash point, TCLP metals, and pH, would not demonstrate whether a citrus-based cleaning material had been mixed with used oil. The tests you suggest are only relevant to classifying whether a material is a hazardous waste and used oil is specifically exempted from being a hazardous waste. If you have tests that you believe would demonstrate that the used oil was not mixed with the Chemcoa cleaner, we will have them conducted.

3) We recognize and acknowledge your concern about future possible leakage from the drum containing the aluminum brightener pre-wash, 592 REACT. We have ceased using both the 592 REACT pre-wash and the 596-B aluminum brightener at our facility. When we determine the proper means of disposing of these materials, we will notify you of the means of disposal and provide you with a copy of shipping manifests, if they are required. Pending the disposal of these drums, they have been maintained on a container skid, which incorporates secondary containment.

4) In response to your letter of June 28, 1999, we spoke on the telephone last Friday, July 2, 1999. At that time you faxed me the spill report outline that had been inadvertently omitted from your June 28th letter. My review of this spill report outline indicates that it is substantially the same as the reporting criteria for spills developed by the United States Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, which is found at 40 CFR § 302. Further, in Table 302.4, materials that are hazardous substances because they are hazardous wastes due to having the characteristic of corrosivity (D002) have a reportable quantity (RQ) limit of 100 pounds. While we deny that the material that allegedly leaked from the drum containing the aluminum brightener pre-wash, 592 REACT, had a pH that would result in it being a hazardous waste if discarded, even if it was a hazardous waste, which we deny, the amount allegedly spilled on the ground was clearly less than 100 pounds. As such, according to the spill report outline you faxed me last Friday, the spill would not be reportable. Please advise us if you wish some different course of action taken or if we have misinterpreted the guidance you have provided.

We understand that this letter has raised some areas of disagreement and possible confusion between us. We will continue to work to resolve these disagreements and clear up any areas of confusion. Koppers Industries, Inc. is committed to being a good corporate citizen of the State of Oregon and we will continue to work to resolve all of these issues to your satisfaction.

Sincerely,

Amos S. Kamerer

KOPPERS INDUSTRIES

PORTLAND - ENVIRONMENTAL

FAX TRANSMITTAL

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663
Telephone: 503-286-3681
Fax: 503-285-2831

TO: R. Collins, J. Pieta, S. Smith, T. Self DATE: 3/10/99

FROM: Ames TOTAL # OF PAGES: 7

The Attached per my e-mail

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

(1)

RECEIVED
MAR 10 1999
KOPPERS INDS, INC.
PORTLAND OR

March 5, 1999

Mr. Amos S. Kamerer
Koppers Industries, Inc.
7540 NW Saint Helens Road
Portland, OR 97210

Re: Site Assessment Review Notice
Koppers Industries
7540 NW St. Helens Road
Portland, Oregon 97210
Multnomah County

Dear Mr. Kamerer:

The Department of Environmental Quality (DEQ), Site Assessment Program is performing a preliminary review of file information for the Koppers Industries facility located at 7540 NW St. Helens Road in Portland, OR. The Site Assessment Program is concerned with properties with known or potential environmental contamination. This review is being performed under Oregon's Environmental Cleanup Law Oregon Revised Statutes (ORS) 465.245. Our records indicate that Koppers Industries is an operator at the site. Please contact me if that information is not correct.

Based upon initial sampling results from a river sediment quality study conducted within Portland Harbor during the fall of 1997 by EPA and DEQ, and a review of available records, your site has been identified as a potential source of contamination to the river. EPA and DEQ collected near-shore sediment samples from 151 sampling locations along a six mile stretch of the Willamette River between the mouth of Multnomah Channel (at River Mile 3.6) and Swan Island (at River Mile 9.2). Samples were analyzed for metals, petroleum constituents,

(2)

polychlorinated biphenyls (PCBs), pesticides, dioxins, and other volatile and semi-volatile organic constituents. Elevated concentrations of these contaminants were found at several locations within the Harbor. Some of the sediments contain concentrations of organic and inorganic contaminants which could potentially be harmful to fish, wildlife, or human health.

Properties that are located near areas where sediment contaminants were detected at elevated concentrations, or at which historical activities suggest a potential source of contamination, are being further examined through DEQ's Site Assessment Program. Sites along the Willamette River may contribute to sediment contamination through direct discharges to the river or nearby streams or stormsewers, through nonpoint surface water runoff, or through discharges of contaminated groundwater.

We want to give you an opportunity update our existing information, and to provide any information which you think we may not be aware of, especially any recent investigations or clean-up reports we may not already have. DEQ will use the information you provide, together with our other information, to determine if your facility will require further assessment. Your assistance in gathering this information will help to ensure an accurate and thorough review of the site.

Enclosed is an outline of the information that we would find most helpful. We ask that you provide the requested information for the site listed above to the best of your knowledge.

3/9/99 To ensure a timely review of your site, please send the requested information within two weeks of the date postmarked on the envelope. If we do not hear from you, we will proceed with our review of the information we already have. Please send the information to:

Steve Fortuna, Remedial Action Specialist
Site Assessment Program
Oregon Department of Environmental Quality, Northwest Region
2020 NW Fourth Avenue, Suite 400
Portland, OR 97201-4987

Because ORS 465.330 requires recovery of state expenses associated with remedial actions, DEQ will track its costs in reviewing your facility. DEQ will recover those costs if we determine that further action is needed to protect public health or the environment from on-site releases of hazardous substances. Costs

(3)

may be recovered from persons defined as liable under Oregon Revised Statutes (ORS) 465.255. At the completion of the review we will inform you of DEQ's decision regarding further action and what, if any, costs will be recovered.

If you have any questions regarding this letter or the Site Assessment process, please feel free to contact me at (503) 229-5166.

Sincerely,

Steve Fortuna, Remedial Action Specialist
Site Assessment Program
DEQ Northwest Region

Enclosure: Site Assessment Information Request Outline

cc: Gil Wistar, Coordinator, Site Assessment Program
Jennifer Sutter, Project Manager, Portland Harbor Sediment Project

Koppers.ltr (3/99)

(4)

PLEASE NOTE:

The enclosed **Site Assessment Information Request** outline is a generalized request form. Some of the requested information may not apply to your site. If so, simply state "Does Not Apply".

The *"examples"* listed on this form are simply intended to illustrate the types of information being sought; they are not intended to represent specific conditions present at your site.

(5)

SITE ASSESSMENT INFORMATION REQUEST

Please address each item as completely as possible. When you cannot address a particular item because of a lack of information, please state so.

1. PROVIDE THE FOLLOWING BACKGROUND INFORMATION:

   a. Facility name and address.

   b. Facility owners and operators names, titles, addresses, and phone numbers.

   c. Property owners (if different from facility owner/operator) name, address, and phone number.

   d. Current use of site, and year those operations began at the site.

   e. Past use of site: include all you know about previous owners and users of site, and associated dates.

   f. Size of site (in acres or square feet) and tax lot numbers.

   g. Site security (is the site *completely or partially fenced, patrolled,* etc.?).

   h. Land uses immediately surrounding the site boundaries. An example of the type of information being sought: *"The site is mostly surrounded by industrial [or commercial, or agricultural] land, but a small residential area is located ¼ mile to the northwest.....",* etc.

2. PROVIDE A SITE MAP WITH THE FOLLOWING ITEMS IDENTIFIED:

   a. Building names and their functions (past and present).

   b. All chemical and waste storage and disposal areas (e.g., does the site have *buildings, ponds, ditches, landfills, waste piles, tanks, dry wells, drainfields,* etc.); include inactive or abandoned areas.

   c. Outdoor process areas.

   d. Storage tanks, both underground and above ground (*number, size, contents, active, inactive, decommissioned in place,* etc.).

   e. Waste treatment systems (including active, or inactive, drywells, drainfields, septic tanks).

   f. Any on-site wells (*water supply, monitoring, dry wells, abandoned wells*).

3. PROVIDE THE FOLLOWING CHEMICAL/WASTE HANDLING INFORMATION:

   a. All chemical products used or stored at the site, past and present (include any *fuels, solvents, oils, pesticides,* etc.).

b. All waste products generated or stored at the site (include any *waste solvents or oils, filter cake, spent plating solutions, metal grindings, spent sandblast shot,* etc.).

c. Approximate volumes of chemicals used and wastes generated per year, and maximum volume kept on-site.

d. Any on-site chemical or waste-treatment systems (include any *flocculation/filtration, incineration, chemical or physical treatment, volume reduction,* etc.).

e. Information on all past and present chemical and waste storage and disposal areas; include information on size, type, current or former contents, and condition of each. Examples of this type of information might include:

"There are two 3,000-gallon steel underground tanks on-site; each presently contains about 500 gallons of gasoline. These were installed in 1988, and are thought to be in good condition. They have not been tested."

"Between 1942 and 1971, waste sandblast grit was buried in a series of trenches located 50 to 150 yards north of the main shop. The trenches were unlined and measure approximately 2 feet wide, 4 feet deep, and 30 feet long".

f. Type, quantity, and destination of all wastes removed from site. An example of the type of information being requested: *"Since 1984, 2 tons of metal wastes have been landfilled at the county dump site each month; 55 gallons of used benzene has been recycled each month through Bob's Solvent Recovery Company of Butte Montana...",* etc.

g. Any spills or other releases of chemical substances (including petroleum products) that have occurred at the site during your operation or ownership.

h. Any information you have about chemical substances used, stored, or released at the site by prior owners or operators.

4. PROVIDE THE FOLLOWING PERMIT INFORMATION:

a. Identify all existing or expired regulatory permits. For each, provide information on the type of permit (such as *NPDES, RCRA Interim Status,* etc.), regulating agency (such as *federal, state, local sewerage agency*), and issue and expiration dates.

5. PROVIDE THE FOLLOWING SAMPLING/CLEANUP/INVESTIGATIVE INFORMATION:

a. Describe all environmental investigations/sampling/monitoring performed at site. Provide investigative reports/sampling results, if any.

b. Describe any soil excavations or removals, spill cleanups, groundwater treatment, etc. that may have been performed at site.

(END)

INTEROFFICE COMMUNICATION

To: J. T. Dietz
Location: K-1650
Subject: Monthly Highlights
March 2001

From: A. S. Kamerer
Location: Portland
Date: 4/4/01

PLANT OPERATIONS

SAFETY/ENVIRONMENTAL

	MONTH	YTD
HOURS WORKED	1399	3911
LOST TIME ACCIDENTS	0	0

There were no lost time accidents or OSHA reportable incidents during the month, marking our 32nd consecutive month without any reportable incidents. The SH&E committee meet once during the month and issued 1 new procedure and the training on it, was completed during the month, as well. I attended the annual SH&E Seminar during the month. I had an opacity and odor complaint from ODEQ, during the month. A subsequent meeting and follow-up conversations with ODEQ, has resulted in our changing the wash material that is used in our fume recovery system from heavy oil, to water. So far, the results have been positive. The SH&E monthly reporting spreadsheets are attached, to the cover e-mail.

SHIPMENTS/PRODUCTION

COMMODITY	UNIT	MONTH	YTD	PRIOR YTD	Inc/Dec. YTD
PENCIL PITCH	TONS	21	21	161	-140
LIQUID PITCH	TONS	1019	2632	7855	-5223
INTALCO TRANSSHIPMENT	TONS	958	2188	6699	-4511
TOTAL LIQ. THROUGH PUT	TONS	1977	4820	15591	-10771

We shipped 28 truckloads and 12 tank carloads of liquid pitch during the month, plus, 1 truckload of target pencil pitch. The only good news during the month was that there was no new production curtailments announced in the Northwest aluminum industry. Our actual monthly plant operating expenses will be below our estimate of $169,000.

TQM UPDATES & PRODUCTION IMPROVEMENTS

Work on our TQM projects dealing with fuel usage and operating cost reductions continues. To date we have reduced our natural gas usage by some 20 %.

CAPITAL PROJECTS

Other than the opacity/odor complaint mentioned above, we have not had any formal response from ODEQ regarding our request for a delay of the construction of the new thermal oxidizer. In the mean time, we have made several changes to our operating procedures of this unit and changed the wash material to water, to reduce emissions.

I am continuing to work on the fire suppression project, based on the recent comments received from staff, to the equipment supply quotation that I have.

FUTURE ACTIVITIES

We are scheduled for our 3rd party environmental audit in April.

SALES

ALCOA-WENATCHEE: We are still shipping 3 cars per week to Wenatchee, and are current on all releases.

CFAC: Nothing to report here, their production is totally idled.

INTALCO: Nothing new to report here, they are taking from 6 to 8 truck loads per week.

KAISER - MEAD & TACOMA: We have started to receive the returned liquid pitch from Mead, 6 cars have been unloaded, with 6 more to be unloaded in the next 2 weeks. Then the cars will be re-loaded at Mead and returned to Portland, to complete the transfer of this material.

VANALCO: Nothing to report here.

Goldendale & Northwest Aluminum CO's: Nothing to report here, either.

Amos S. Kamerer

cc: K. J. Fitzgerald, K-1600
T. J. Turner, Portland
J. Patterson, K-1650

KOPPERS INDUSTRIES - Portland

Reporting Requirements 2001

Media	Requirement	Authority	Frequency	Date Due	JAN S[1]	JAN E[2]	JAN R[3]	FEB S	FEB E	FEB R	MAR S	MAR E	MAR R	APR S	APR E	APR R	MAY S	MAY E	MAY R	JUN S	JUN E	JUN R	JUL S	JUL E	JUL R	AUG S	AUG E	AUG R	SEP S	SEP E	SEP R	OCT S	OCT E	OCT R	NOV S	NOV E	NOV R	DEC S	DEC E	DEC R
AIR																																								
	Air emissions report	ODEQ	annually	March 1st							2/9																													
	Update air permitNESHAP report	Subpart F&G		1-Sep, 2002																																				
WATER																																								
	DMR report		monthly	Due 15th of following mo.	3	0	0	1	0	0	3	0	0																											
	NPDES renewal			31-Jan, 2004																																				
SAFETY																																							
	First report of injury or illness	Bureau of Workers Comp.	Post medical treatment																																					
OTHER																																							
	MSDS' updates	St. Fire Marshal	On-site files to be kept current.	Review-R quarterly, notify any if changes-N	R																																		
	Test liquid pitch unloading line and hoses	USCG	annualy	November																																			
	Hazardous substance survey- TierTwo	Oregon State Fire Marshall	annually	Nov. 30th																																			
	Form R	SARA 313	annual	July 1st																																			
	SPCC Plan recertification	RCRA	triennial	Feb. 2003																																			
	Chemical Inventory Update IUR	TSCA	quadrennial	2002. 2006...																																			
	Monthly ECHO Meeting	LEPC	10 Months per year	2nd Thursday of each month, Sept. through June	11			8			no												N/A			N/A													

S = date submitted

E = number of excursions

R = were excursions reported to the agency (Y/N?)

N/A indicates monitoring only

as of 4/4/01
SHE-RR-3-01

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MONTHLY REPORT

Safety, Health and Environmental Issues

FACILITY: Northwest Terminal Portland, Or.

MONTH/YEAR: Mar-01

DID ANY OF THE FOLLOWING OCCUR DURING THE PAST MONTH? PROVIDE A BRIEF DESCRIPTION, WHERE APPLICABLE

This form is provided for the plant manager's use in organizing information for the monthly report. Complete and attach this form to the monthly report. If you need more room, expand in the monthly report.

	YES	NO	BRIEF DESCRIPTION OF EVENT
Accidents		X	(1)
Near Misses		X	
Odor/Noise Complaints	X		ODEQ called to advise that one of their inspector's had been by the plant and whitnessed emissions that exceed our permit. Subsequent meetings and conversations have resulted in our changing the wash material used in the fume recovery unit from heavy oil, to water. The results ahve been positive, No citations were issued.
Regulatory Agency Inspections/Inquiries/NOV's		X	
Releases		X	(1)
Permit Exceedances		0	(1)
Property Damage			
Crisis Management Exercises/Events		X	
Changes in plant operations impacting SH&E		X	
New best management practices established		X	
SH&E Committee meeting	X		(2) The committee meet once during the month and completed 1 new procedure.
SH&E Training Conducted	X		Training was completed during the month on 1 procedure: Storm Water Collection and Discharge.
SH&E Projects (please report status)		0	
New operating procedures developed	X		One new procedure was completed during the month: Storm Water Collection and Discharge.
SH&E Successes		X	
Awards received from external sources	X		The plant received it's third consecutive Boot Strap award for year 2000, at the annual SH&E Seminar during the month.
Other compliance issues		N/A	

Notes:
(1) Attach report or indicate date of prior submittal
(2) If minutes have not already been submitted, please attach them to this report

Post-it® Fax Note 7671	Date 11/3/00	# of pages ▶ 9
To J. Dietz	From Amos	
~~Co./Dept.~~ T. Self	~~Co.~~	
~~Phone #~~ M. Cilley	~~Phone #~~	F.Y.I.
~~Fax #~~ B. Meisinger	Fax #	

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

November 1, 2000

Mr. Eric Blischke
Department of Environmental Quality
Voluntary Cleanup and Site Assessment Section
2020 SW 4th Avenue
Portland Oregon 97201

HAI Project No. 2708

SUBJECT: Updated Groundwater Quality Data, Above-Ground Storage Tank Support Piling Monitoring, Koppers Industries, Inc. Lease Area, NW Natural-Gasco Facility, 7900 NW St. Helens Road, Portland, Oregon

Dear Mr. Blischke:

On behalf of NW Natural, enclosed please find an updated summary of groundwater quality data (Tables 1 and 2) as obtained from wells at the Gasco site that monitor groundwater conditions down-gradient from the new above-ground coal tar pitch tank that was constructed by Koppers Industries, Inc. (KII) in 1999 (Figure 1). This data summary has been updated, as you requested in your October 12, 2000 correspondence to Mr. Bob Wyatt of NW Natural, to include groundwater sampling results from monitoring activities that were recently completed at the site on October 5, 2000. With this updated data in hand, it was agreed that the Oregon Department of Environmental Quality (DEQ) would have sufficient information necessary to reach a decision regarding the removal of the moratorium on future tank installations at the KII facility.

In review, 208 support pilings were driven to bedrock in May and June 1999 as part of the installation of the new coal tar pitch tank located on the KII property. Monitoring wells MW-14-110, MW-15-50 and MW-15-66 are being monitored on a quarterly sampling frequency as per a December 14, 1999 assessment plan[1] that has been implemented such that an evaluation of environmental impacts associated with piling construction may be completed. Wells MW-15-50 and MW-15-66 were installed in July 1999 and are located approximately 30 feet to the north, and down-gradient of, the support pilings, while well MW-14-110 is located approximately 250 feet north, and down-gradient of the pilings. Well MW-15-50 is screened from 40 to 50 feet bgs within the upper Alluvial Sand water bearing zone (WBZ), a depth interval that is immediately below the silt unit, while wells MW-15-66 and MW-14-110 are screened at the base of the Alluvial Sand WBZ across depths of 61 to 66 feet bgs and 100 to 110 feet bgs, respectively. The silt unit at this portion of the site acts to prevent the vertical migration of dense non-aqueous phase liquid (DNAPL) from the overlying Surficial Fill WBZ into the underlying Alluvial Sand WBZ.

The primary objective of the monitoring activities has been the acquisition of sufficient data such that the likely source of polynuclear aromatic hydrocarbon (PAH) and aromatic hydrocarbon (particularly benzene) contamination identified at the MW-15-50 well

[1] Hahn and Associates, Inc. (1999), *Proposed Assessment Plan, Above-Ground Storage Tank Support Pilings, Koppers Lease Area, Northwest Natural Lease Area, Northwest Natural-Gasco Facility, 7900 NW St. Helens Road, Portland, Oregon* (Ede to Blischke), December 14, 1999.

location could be ascertained. Specifically, monitoring activities were designed to determine whether the impacts identified at MW-15-50: (1) pre-date the installation of tank foundation pilings; (2) are the result of limited piling drag-down of shallow contamination into the Alluvial Sand WBZ; or (3) are the result of the pilings acting as an on-going conduit for the continued migration of shallow contamination into the Alluvial Sand WBZ. The preceding determination is necessary in order to evaluate whether tank installation procedures have exacerbated existing contamination at the site, since KII desires to commence construction of a second tank, at a location immediately south of the first tank (Figure 1) in this area during 2001.

As provided within the Assessment Plan (HAI 1999), monitoring activities were completed since July 1999 to allow for the identification and evaluation of concentration trends at the wells such that the type/mechanism of the contaminant source currently identified at the MW-15-50 location could be ascertained. With completion of the October 2000 sampling event, more than one year of groundwater quality data (five quarterly sampling events) are now available (Tables 1 through 3). Descriptions of key observations and trends in contaminant concentrations are provided below, with an interpretation provided thereafter.

Benzene Concentration Trends

- Benzene concentrations at the MW-15-50 well location have decreased from a high of 95,100 parts per billion (ppb) in July 1999 to a low of 1,270 ppb in June 2000, while remaining low through the most recent sampling event in October 2000 (2,700 ppb on October 5, 2000) (Figure 2).

30'N; 61-66 'DEEP

- Benzene concentrations at the MW-15-66 well location have consistently been non-detect since October 1999, with only low to trace levels identified at this well location during the first two sampling events in July and August, 1999 (Figure 3).

- Since installation of the tank support pilings in May and June 1999, decreasing concentrations of benzene have been identified at the well MW-14-110 location (from 45.6 ppb in August 1999 to non-detect in October 2000) (Figure 4).

PAH Concentration Trends

- The four most soluble PAHs (acenaphthene, acenaphthylene, fluorene, and naphthalene; all 2- to 3-ringed PAHs) were identified in groundwater at the MW-15-50 location during the initial July 1999 sampling event, with a combined total concentration of 18,460 ppb, while the less soluble carcinogenic (3- to 5-ring PAHs) were first identified at this location in April 2000 with a combined total concentration of 3.31 ppb. Low levels of 3- to 5-ringed PAHs may have been present prior to April 2000, but they would not have been detected at the concentrations identified in April 2000 due to elevated detection limits resulting from the need to dilute these samples because of the high concentrations of the more soluble PAHs that were encountered.

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- Concentrations of the two most soluble PAHs, naphthalene and acenaphthylene, have consistently and dramatically declined through time at the MW-15-50 well location, decreasing from a combined total of 18,210 ppb as measured in July 1999 to only 3.76 ppb as measured in October 2000 (Figure 5).

- The concentrations of the relatively insoluble carcinogenic 3-ringed to 5-ringed PAHs at the MW-15-50 location, identified with a combined total concentration of 3.3 ppb during the April 2000 sampling event, were found to spike upwards during the June 2000 sampling event (to a combined total concentration of 265 ppb), with a subsequent decline as measured during the October 2000 sampling event (total concentration of 75 ppb) (Figure 6).

- With regard to the MW-15-66 location, the most soluble 2- and 3-ringed (non-carcinogenic) PAHs have only sporadically been identified at this location, and then only at very low concentrations (less than 10 ppb) (Figure 7). Although a small spike in 3-ring to 5-ring (carcinogenic) PAHs was noted at this location in June 2000 (12.17 ppb), results of the October 2000 sampling event indicated that concentrations of 3- to 5-ringed PAHs have since declined to their lowest recorded level since October 1999 (1.36 ppb) (Figure 8).

- With regard to the MW-14-110 location, only trace levels of 2 soluble PAHs (acenaphthene and naphthalene) have been identified in groundwater at this location, with no other PAHs having ever been identified. Results from the most recent sampling event, conducted in October 2000, indicate that no PAHs were detected at this location (Figure 9).

Predicted Contaminant Travel Times

As requested in the October 12, 2000 DEQ correspondence, an estimate of the travel time that might be expected with regard to dissolved plume contaminant migration from the source (i.e., pilings) to the observation point (i.e., monitoring wells) is included herein.

Based on site-specific slug test data, as reported within the HAI Phase I RI Investigation Summary Report[2], seepage velocities for groundwater within the Alluvial Sand WBZ have been estimated to range from 0.02 to 0.1 feet per day. Similarly, seepage velocity estimates of the same WBZ using hydraulic conductivity data from slug tests of nearby off-site wells, as reported by Geraghty & Miller, Inc.[3], results in seepage velocity estimates of 0.02 to 0.2 feet per day. Based on the preceding, assuming non-attenuated dissolved phase advective transport only, one would estimate a travel time from the pilings to the MW-15 well pair (approximately 30 feet) to be between 6 months and 4 years.

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[2] Hahn and Associates, Inc. (1998), *Phase I Remedial Investigation Summary Report and Preliminary Analysis of Soil Data, Northwest Natural-Gasco Facility, 7900 NW St. Helens Road, Portland, Oregon*, October 9, 1998.

[3] Geraghty & Miller, Inc. (1991), Hydrogeological Investigation of the Doane Lake Area, Portland, Oregon, February 22, 1991.

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Although the above provides an estimate of advective travel time within the Alluvial Sand WBZ, it is important to note that any product drag down into the Alluvial Sand WBZ caused by the pilings would result in contaminant transport via advective transport as well as by diffusion and gravity flow. The gravity flow component, if present, would have an unpredictable impact on overall contaminant travel times, while the diffusion component resulting from a large instantaneous concentration gradient could be significant.

Discussion

The initial peak and subsequent sharp decline of soluble aromatic hydrocarbon and PAH concentrations, as identified at well MW-15-50, is suggestive of a slug of contamination migrating past this well. Further, the initial presence of acenaphthene at a concentration that is more than two-times this constituent's solubility limit, provides some evidence that product may have been present near this location. The steady decline in contaminant concentrations at this location through time indicates that the slug of product was likely of limited extent and not the result of an ongoing release into the Alluvial Sand WBZ. Additionally, the significantly lower levels of contamination at the MW-15-66 well location indicates that there may have been insufficient product mass to overcome the likely permeability contrasts (i.e., silt layers) present within the upper Alluvial Sand WBZ.

Although concentrations of the more soluble PAHs have shown a dramatic decline at well MW-15-50, concentrations of the 3- to 5-ring PAHs are expected to persist, and to fluctuate, due to their greater tendency to partition onto soils through which the product slug has moved. For example, due to their mode of transport, concentrations of 3- to 5-ringed PAHs would be expected to fluctuate significantly as a function of sample turbidity. Based on the greater attenuation potential, the delayed peak in concentration for the least soluble PAH fraction as observed at the MW-15-50 location in June 2000 (Figure 6), does not appear to indicate the occurrence of a significant environmental issue with respect to the pilings.

It is noted that the potential does exist that a component of the contamination observed at the MW-15-50 location may be the result of well construction-related contaminant drag-down. However, due to the method of well construction (completed through a permanently installed steel surface casing installed across the zone of product), it does not appear likely that the significant concentrations identified at the MW-15-50 location (in excess of 95,000 ppb) could solely be attributable to well construction-related drag-down. As observed at existing wells where contaminant drag down is suspected (i.e., wells MW-10-61 and MW-14-110), benzene concentrations have not been identified at concentrations greater than 75 ppb. Based on the preceding, it does not appear likely that the benzene concentrations identified at well MW-15-50 would be the result of well construction-induced drag-down.

As described previously, the difference in the predicted contaminant travel time versus the observed travel time from the tank pilings to the MW-15 well pair location, may be due to several factors. First, the predicted travel time (between 6 months and 4 years) considered advective transport only, while in actuality, gravity flow and chemical diffusion both likely contributed significantly to overall transport. Additionally, it should be understood that the hydraulic conductivity values used for estimating seepage velocity were based on single well slug tests, which by their nature (short term, localized area) should be

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considered only qualitative estimates of average hydraulic conductivity that could underestimate the actual average hydraulic conductivity for the Alluvial Sand WBZ.

In summary, under a scenario involving an ongoing source of contamination to the Alluvial Sand WBZ, one would expect stable or increasing concentration trends at the MW-15-50 location, with a strong increasing trend in contaminant concentrations at well MW-15-66. Since overall trends observed to date indicate a decline in concentrations through time at the MW-15-50 location, and non-detect to low concentrations at MW-15-66, it does not appear that piling installation has resulted in creation of an artificial conduit leading to exacerbation of overall site contamination. Instead, contamination identified within the Alluvial Sand WBZ at the MW-15-50 well location location is likely the result of "one-time" contaminant drag-down during the piling installation. The slug of contamination resulting from the piling construction, as observed passing the MW-15-50 location, would not be expected to significantly contribute to the existing site contamination since this slug would attenuate and be masked by an existing plume of significantly greater mass and concentration within the Alluvial Sand WBZ at down-gradient portions of the site.

Recommendations

Based on the findings described herein, it is requested that DEQ remove the moratorium on further tank construction activities at the site.

Assuming that the moratorium is lifted, then in order to monitor for potential exacerbation issues related to new tank construction, it is proposed that a new monitoring well (MW-16), constructed in a similar manner as well MW-15-66, be installed as close to the location of the proposed tank as possible. Figure 1 includes a tentative location for this well. It is recommended that this well be installed as soon as possible, with monitoring to commence prior to piling installation. Such a sequence of events will provide for the collection of valuable "baseline" water quality data. A specific installation plan for this well will be provided to the DEQ for review in the near future.

If there are any comments or questions, please contact the undersigned.

Sincerely,

Robert Ede
Sr. Project Manager

c: Ms. Sandra Hart, NW Natural
Mr. Bob Wyatt, NW Natural
Mr. Amos Kamerer, Koppers Industries, Inc.
Mr. Richard Bach, Stoel Rives, LLP
Mr. Steve Cappellino, Anchor Environmental LLC

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Table 1 - Summary of Historical Analytical Results for Groundwater Samples: BTEX, Total PAHs, and Cyanide (November 1998 to Present)
Remedial Investigation
NW Natural - Gasco Facility
Portland, Oregon

Project No. 2708

Well Number	HAI Sample Number[1]	Chain of Custody Number	Sample Date	Analytical Results								
				EPA Method 8020 ug/l (ppb)					EPA Method 8270 SIM ug/l (ppb)		EPA 9010 mg/l (ppm)	EPA 901 mg/l (ppm)
				Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	Carcinogenic PAHs	Total PAHs	Total Cyanide	Amenable Cyanide
MW-14-110	981116-MW14-110-06	2708-W037	16-Nov-98	3.2	ND>0.5	ND>0.5	ND>1.5	3.2	ND	ND	0.05	
	990216-MW14-110-005	2708-W042	16-Feb-99	12.7	ND>0.5	0.6	ND>1.5	13.3	ND	0.11	0.04	ND>0.02
	990512-MW14-110-09	2708-W045	12-May-99	22.1	ND>0.5	1.88	2.4	26.4	ND	0.28	0.03	0.03
	990823-MW14-110-06	2708-W049	23-Aug-99	46.8	0.75	1.65	2.09	50.3	ND	0.41	0.05	ND>0.02
	991027-MW14-110-09	2708-W055	27-Oct-99	26.8	0.81	1.45	ND>1.5	30.9	ND	0.26	0.04	ND>0.02
	991027-MW14-110-10	2708-W055	27-Oct-99	29.7	0.57	1.52	ND>1.5	31.8	ND	0.27	0.03	ND>0.02
	000329-MW14-110-109	2708-W060	29-Mar-00	7.94	ND>0.5	0.73	ND>1.5	8.6	ND	0.42	0.03	ND>0.02
	000329-MW14-110-110	2708-W060	29-Mar-00	8.9	0.5	0.83	ND>1.5	10.2	ND	0.42	0.03	ND>0.02
	000615-MW14-110-102	2708-W064	15-Jun-00	4.85	ND>0.5	ND>0.5	ND>1.5	4.9	ND	0.2	ND>0.02	ND>0.02
	001005-MW14-110-06	2708-W066	5-Oct-00	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	ND	ND	ND>0.02	
MW-15-50	990728-MW15-50-04	2708-W048	28-Jul-99	95,100.	883.	223.	2,420.	98,606.	ND	18,460.	ND>0.020	ND>0.02
	991029-MW15-50-25	2708-W057	29-Oct-99	8,810.	134.	59.2	500.	9,503.2	ND	762.	0.16	ND>0.02
	000403-MW15-50-125	2708-W062	3-Apr-00	44,800.	620.	222.	2,300.	47,942.	3.31	5,611.	0.07	ND>0.02
	000615-MW15-50-105	2708-W064	15-Jun-00	1,490.	14.3	6.62	42.	1,552.9	286.	475.		ND>0.02
	000615-MW15-50-106	2708-W064	15-Jun-00	1,270.	10.	5.16	28.4	1,313.6	284.	451.		ND>0.02
	001005-MW15-50-14	2708-W066	5-Oct-00	2,700.	5.65	3.83	15.2	2,724.7	74.	128.	ND>0.020	
MW-15-66	990728-MW15-66-03	2708-W048	28-Jul-99	3.61	ND>0.5	ND>0.5	ND>1.5	3.6	0.83	3.	ND>0.020	ND>0.02
	990823-MW15-66-04	2708-W050	23-Aug-99	0.72	ND>0.5	ND>0.5	ND>1.5	0.7				
	991028-MW15-66-07	2708-W054	26-Oct-99	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	ND	ND	ND>0.020	ND>0.02
	000329-MW15-66-108	2708-W060	29-Mar-00	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	3.91	7.	ND>0.02	ND>0.02
	000615-MW15-66-104	2708-W064	15-Jun-00	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	12.17	22.		ND>0.02
	001005-MW15-66-08	2708-W066	5-Oct-00	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	1.38	2.	ND>0.020	
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				5	1,000	700	10,000	#	#	#	0.2	#
EPA Region 9 Preliminary Remediation Goals (PRGs) for Tap Water (10/99)				0.41	720	1,300	1,400	#	#	#	#	0.73
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water[2]				40.[3]	424.[3]	1,400.[3]	#	#	0.031.[4]	#	0.0052.[3]	#

Note: BTEX = benzene, toluene, ethylbenzene, and xylenes
DEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency
mg/l = milligrams/liter
ND = not detected above detection limit indicated
PAHs = polynuclear aromatic hydrocarbons
ppb = parts per billion
ppm = parts per million
ug/l = micrograms per liter
= Reference Level not established
Bold and shaded = Detected above Lowest Identified Reference Level

1 = Sample number prefix: 2708-
2 = Reference Level indicated is the lowest guidance value provided in the Ambient Water Quality Criteria (OAR 340-41) based on Fresh Acute, Fresh Chronic (Aquatic Life Protection) and Fish Consumption (Human Health Protection)
3 = Reference Level based on Aquatic Fresh Chronic Criteria of AWQC
4 = Reference Level based on Human Fish Consumption Criteria of AWQC

FROM : KOPPERS INDUSTRIES, INC. 285 3581 1900.11-03 15:52 #587 P.05/09

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Table 2 - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270 (November 1998 to Present)

Remedial Investigation
NW Natural - Gasco Facility
Portland, Oregon

PAHs by EPA Method 8270 (SIM) — Project No. 2706

Analytical Results ug/l (ppb)

Well Number	Sample Number	Chain of Custody Number	Sample Date	Carcinogenic PAHs: Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Chrysene	Dibenzo (ah) anthracene	Indeno (1,2,3-cd) pyrene	Non-carcinogenic PAHs: Acenaphthene	Acenaphthylene	Anthracene	Benzo (ghi) perylene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
MW-14-110	981118-MW14-110-08	2708-W007	18-Nov-98	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND	ND
	990218-MW14-110-005	2708-W042	16-Feb-99	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.11	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND	0.1
	990512-MW14-110-09	2708-W045	12-May-99	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.14	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.14	ND [a]	ND [a]	ND	0.3
	990823-MW14-110-08	2708-W049	23-Aug-99	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.29	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.12	ND [a]	ND [a]	ND	0.4
	991027-MW14-110-08	2708-W055	27-Oct-99	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.26	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND	0.3
	991027-MW14-110-09	2708-W056	27-Oct-99	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.26	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND	0.3
	000329-MW14-110-109	2708-W069	29-Mar-00	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.42	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND	0.3
	000329-MW14-110-110	2708-W070	29-Mar-00	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.42	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND	0.3
	000615-MW14-110-102	2708-W064	15-Jun-00	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.18	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND	0.4
	001005-MW14-110-06	2708-W068	5-Oct-00	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND	0.4
MW-15-60	990728-MW15-60-04	2708-W048	28-Jul-99	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	50.	8,510.	ND [d]	ND [d]	ND [d]	93.	9,700.	117.	ND [d]	ND	18,480.
	991028-MW15-60-25	2708-W057	28-Oct-99	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	20.	ND [a]	ND [a]	ND [a]	ND [a]	716.	28.	ND [a]	ND	782.
	000403-MW15-60-125	2708-W062	3-Apr-00	0.79	0.51	0.49	0.55	0.73	ND [a]	0.34	22.	41.6	2.91	0.25	6.01	23.6	5,480.	25.9	5.16	ND	5,611.
	000615-MW15-60-105	2708-W064	15-Jun-00	43.6	45.5	38.6	57.1	40.5	8.93	33.5	2.91	0.59	4.11	41.8	66.7	7.66	1.23	25.	60.1	3.31	367.66
	000615-MW15-60-106	2708-W064	15-Jun-00	40.	44.1	36.3	53.5	38.3	8.97	32.6	2.96	0.77	4.1	40.2	65.3	1.71	1.23	23.8	57.3	253.67	475.
	001005-MW15-60-14	2708-W068	5-Oct-00	10.7	19.7	8.97	16.4	9.88	2.52	8.21	1.51	0.98	1.47	8.14	15.5	1.06	2.6	6.44	16.7	74.38	129.
MW-15-66	990728-MW15-66-03	2708-W046	28-Jul-99	0.16	0.28	ND [a]	0.16	0.15	ND [a]	0.11	0.11	ND [a]	ND [a]	0.14	0.3	ND [a]	0.57	0.17	0.34	0.63	2.5
	991028-MW15-66-07	2708-W054	28-Oct-99	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [d]	ND	ND
	000329-MW15-66-108	2708-W060	29-Mar-00	0.57	0.59	0.6	0.77	0.67	0.19	0.53	ND [a]	ND [a]	0.11	0.66	0.98	ND [a]	ND [a]	0.33	0.96	3.91	6.9
	000615-MW15-59-104	2708-W064	15-Jun-00	1.93	1.96	1.81	2.64	1.91	0.57	1.58	0.14	ND [a]	0.39	2.04	3.32	ND [a]	ND [a]	1.07	2.92	12.17	22.1
	001005-MW15-66-06	2708-W066	5-Oct-00	0.33	0.4	0.17	0.33	0.24	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	ND [a]	0.41	ND [a]	ND [a]	0.14	0.43	1.36	2.3
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				#	#	#	2.	#	#	#	#	#	#	#	#	#	#	#	#	#	#
EPA Region 9 Preliminary Remedial Goals (PRGs) for Tap Water [1,000]				0.092	0.092	0.92	0.0092	9.2	0.0092	0.092	370. [b]	#	1,800.	#	1,600.	240.	0.2	#	160.	#	#
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water [2]				#	#	#	#	#	#	#	620. [3]	#	#	#	54. [4]	#	820. [3]	#	#	0.031 [4]	#

Note:
# = Reference Level not established
EPA = U.S. Environmental Protection Agency
ND = not detected above detection limit indicated
ODEQ = Oregon Department of Environmental Quality

PAHs = polynuclear aromatic hydrocarbons
ppb = parts per billion
ug/l = micrograms per liter
Bold and shaded = Detected above lowest identified Reference Level

a = detection limit is 0.1 ug/l (ppb)
b = detection limit is 1. ug/l (ppb)
c = detection limit is 2. ug/l (ppb)
d = detection limit is 10. ug/l (ppb)
e = detection limit is 20. ug/l (ppb)

1 = Sample number prefix: 2706-
2 = Reference Level indicated is the lowest guidance value provided in the Ambient Water Quality Criteria (OAR 340-41) based on Fresh Acute, Fresh Chronic (Aquatic Life Protection) and Fish Consumption Only (Human Health Protection)
3 = Reference Level based on Aquatic Fresh Chronic Criteria of AWQC
4 = Reference Level based on Human Fish Consumption Criteria of AWQC

Koppers018368

Table 3 - Summary of Historical Analytical Results for Groundwater Samples - November 1988 to Present
Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
Remedial Investigation
NW Natural - Gasco Facility
Portland, Oregon

Project No. 2708

Priority Pollutant Metals by EPA Methods 6010, 7000, and 200 Series				Analytical Results (mg/l (ppm))																					
Well Number	Soil Sample Number	Chain of Custody Number	Sample Date	Antimony	Arsenic	Dissolved Arsenic	Beryllium	Cadmium	Dissolved Cadmium	Chromium	Dissolved Chromium	Copper	Dissolved Copper	Lead	Dissolved Lead	Mercury	Nickel	Dissolved Nickel	Selenium	Silver	Thallium	Zinc	Dissolved Zinc
MW-14-110	881118-MW14-110-06	2708-W037	16-Nov-88		0.012					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
	890218-MW14-110-005	2708-W042	18-Feb-89		0.013					ND [a]		ND [a]		ND [a]			ND [a]					0.03	
	890512-MW14-110-09	2708-W045	12-May-89		0.012					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
	890823-MW14-110-06	2708-W049	23-Aug-89		0.011					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
	891027-MW14-110-09	2708-W055	27-Oct-89		0.01					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
	891027-MW14-110-10	2708-W055	27-Oct-89		0.01					ND [a]		ND [a]		ND [a]			ND [a]					0.005	
	000329-MW14-110-109	2708-W060	29-Mar-00		0.013					ND [a]		ND [a]		ND [a]			ND [a]					0.011	
	000329-MW14-110-110	2708-W060	29-Mar-00		0.012					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
	000615-MW14-110-102	2708-W064	15-Jun-00		0.018					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
	001005-MW14-110-06	2708-W068	5-Oct-00		0.041					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
MW-15-50	891029-MW15-50-25	2708-W057	29-Oct-89		0.011					ND [a]		ND [a]		ND [a]			ND [a]					0.01	
	000400-MW15-50-125	2708-W062	3-Apr-00		ND [a]					ND [a]		ND [a]		ND [a]			ND [a]					0.02	
	000615-MW15-50-105	2708-W064	15-Jun-00		ND [a]					0.006		ND [a]		ND [a]			0.0064					0.0369	
	000615-MW15-50-106	2708-W064	15-Jun-00		ND [a]					ND [a]		ND [a]		ND [a]			ND [a]					0.0368	
	001005-MW15-50-11	2708-W068	5-Oct-00		0.0054					0.0179		0.0081		ND [a]			0.0121					0.0093	
MW-15-68	891029-MW15-68-07	2708-W054	29-Oct-89		ND [a]					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
	000329-MW15-68-108	2708-W060	29-Mar-00		ND [a]					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
	000615-MW15-50-104	2708-W064	15-Jun-00		0.008					ND [a]		ND [a]		ND [a]			ND [a]					0.021	
	001005-MW15-68-08	2708-W068	5-Oct-00		ND [a]					ND [a]		ND [a]		ND [a]			ND [a]					ND [a]	
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				0.006	0.05	0.05	0.004	0.005	0.005	0.1	0.1	1.	1.	0.015	0.015	0.002	0.1	0.1	0.05	0.1	0.002	5.	5.
EPA Region 9 Preliminary Remediation Goals (PRGs) for Tap Water (1999)				0.015	0.000045	0.000045	0.073	0.018	0.018	0.11	0.11	1.4	1.4	0	0	0.0016	0.73	0.73	0.18	0.18	0	11.	11.
ODEQ Ambient Water Quality Criteria (AWQC) for Surface Water [3]				1.9 [3]	0.000017 [4]	0.000017 [4]	0.000117 [3]	0.0019 [3]	0.0011 [3]	0.011 [3]	0.011 [3]	0.012 [3]	0.012 [3]	0.0003 [3]	0.00032 [3]	0.000012 [3]	0.1 [3]	0.1 [3]	0.005 [3]	0.00012 [3]	0.04 [3]	0.11 [3]	0.11 [3]

Note: EPA = U.S. Environmental Protection Agency
mg/l = milligrams/liter
ND = not detected above detection limit indicated
ODEQ = Oregon Department of Environmental Quality
ppm = parts per million

a = detection limit is 0.0002 mg/l (ppm)
b = detection limit is 0.002 mg/l (ppm)
c = detection limit is 0.005 mg/l (ppm)
d = detection limit is 0.01 mg/l (ppm)
e = detection limit is 0.05 mg/l (ppm)

= Reference Levels not established
Bold and shaded = Detected above lowest identified Reference Level

1 = Sample number prefix: 2708-
2 = Reference Level indicated is the lowest guidance value provided in the Ambient Water Quality Criteria (OAR 340-41) based on Fresh Acute, Fresh Chronic (Aquatic Life Protection) and Fish Consumption Only (Human Health Protection)
3 = Reference Level based on Aquatic Fresh Chronic Criteria of AWQC
4 = Reference Level based on Human Fish Consumption Criteria of AWQC
5 = Due to mislabeling in the field or due to laboratory misidentification, the laboratory report transposed results for MW4-35 and MW4-57 in August 1997. Tables attribute data to the correct well.

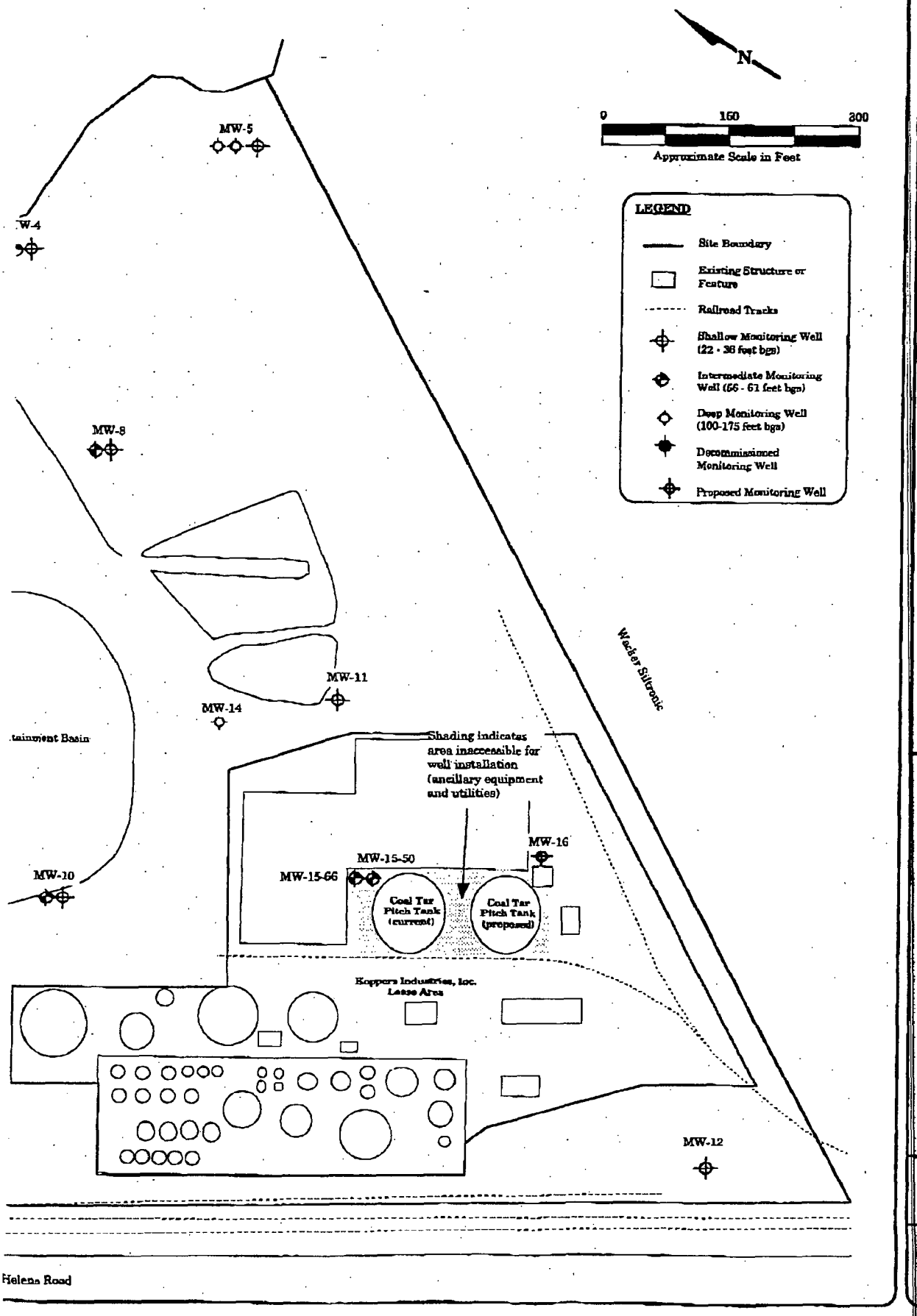


Figure 1

Site Map

Remedial Investigation
Northwest Natural - Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

HAHN & ASSOCIATES, INC.
ENVIRONMENTAL MANAGEMENT
434 NW SIXTH AVENUE, SUITE 203
PORTLAND, OREGON 97209
503/796-0717

October 2000

Project No. 2708

KOPPERS
INDUSTRIES

INTEROFFICE CORRESPONDENCE

TO: See Distribution List

FROM: Leslie Hyde

SUBJECT: Monthly Report – December 2000

DATE: January 4, 2001

THIRD PARTY ENVIRONMENTAL AUDITS

Audits have been completed on all twelve plants that were scheduled for audits in 2000. Ten reports have been received. Your CSG environmental manager should be contacting you to discuss the report and develop a corrective action plan.

Koppers is currently taking proposals for a Third Party Auditing firm for 2001. Indications from the EPA are that they will not approve KU Resources as the third party auditor due to the existing relationship between the companies.

Audits are an integral part of the Management System and should be viewed as a tool for use in continually improving performance. They are an opportunity for Koppers to have someone outside the company look at our operations the way a regulator might. The fact that a plant has findings is not as important as how they plan to correct those findings and insure they do not reoccur. This is an essential part of the "corrective actions" element of the Management System.

SH&E MANAGEMENT SYSTEM

In January and February, operations managers and CSG environmental managers will be visiting each plant to discuss SH&E objectives and targets for 2001. Objectives and targets setting is an integral part of the Management System and is the culmination of much of the work you have done to date in implementing the System. The objectives and targets will essentially be the plant's SH&E goals for the year.

Ongoing Management System activities:

- All plant System coordinators were advised to start training on their documented operating procedures immediately. Plants are to continue sending their documented procedures to CSG to share with other plants, however, CSG is no longer reviewing procedures prior to their implementation at plants. After internal plant review, the procedures should be trained upon and put into operation. CSG will review procedures during the System audit process.

- Several plants have not submitted their "Monitoring and Measuring" and "Document Control" procedures. Templates were sent in October. As always, if your plant has a procedure in place currently, or performs these functions in a different manner, your procedure should address your plant's practice. We are not requiring that you change

your way of doing business, only that you meet the requirements. Please contact your environmental manager if you need any assistance on these two procedures.

- The CM&C Plant System Coordinators held a one day workshop which included a System update and overview of the Objectives and Targets and the Nonconformance, Corrective and Preventive Actions Processes. The coordinators will be involved in the objectives and targets process at their respective plants during the first quarter of this year

- Mike Sylvester and Patrick Stark will begin an aggressive schedule of RU&P plant visits in January to assist plants in System development. Plants scheduled for visits in January are: Grenada, Montgomery, Gainesville, NLR, Green Spring, Superior, and Susquehanna.

CSG received 22 operating procedures from the plants in December. To date, 514 have been received. We have consolidated all the operating procedures written to date on the Pittsburgh common drive. We understand that many plants do not have access to this drive; we will soon have access to these via the intranet. In the interim, if you would like a copy of any procedure, contact your environmental manager – they will e-mail it to you. The following spreadsheet indicates progress in operating procedure documentation.

PLANT	PROCEDURES IDENTIFIED	PROCEDURES DOCUMENTED	REVIEWED BY CSG	PLANT REWRITES	DIVISION REVIEW	TEAM MEETINGS
Alorton	32	15	7	1	1	48
Clairton	27	41	25			16
Denver	19	17	5	6	3	14
Florence	14	29	6		5	7
Follansbee	20	43	25			12
Gainesville	12	17	12			12
Galesburg	20	8	4	3	3	24
Green Spring	19	24	1			23
Grenada	21	21	9	6		28
Guthrie	15	43	32	9	3	13
HTC	13	4	2			8
Logansport	16	23	12	2	2	10
Monessen	25	13	8	3	2	7
Montgomery	28	16	4	1	1	16
NLR	22	8	5		5	28
Portland	24	25	11	2		12
Roanoke	17	35	31	19	5	17
Somerville	20	26	19	6	10	22
Stickney	24	51	29			14
Superior	19	12	5	4	6	22

Susquehanna	13	18	11	11		13
Woodward	26	25	10	12	1	13
TOTAL	446	514	273	82	47	342

If your plant's data is not accurately reflected on this chart, please contact your environmental manager.

MULTI-SECTOR GENERAL PERMITS (MSGP)

EPA has issued the Multi-sector General Permit, which will be effective in 2001. Plants with MSGPs are required to submit a notice of intent in January. Affected plants will be contacted by their environmental manager.

COMMUNITY ADVISORY PANELS

As a reminder, the Executive Environmental Council also directed that each plant make contact with and send a representative to LEPC meetings as an initial step in community outreach. A list of LEPC contacts has been provided in the past. Anyone needing a copy should contact John Marcinowski.

2001 REGULATORY SEMINAR

The agenda for the 2001 Seminar, scheduled for March 11th through 13th, is being finalized and will be provided to the plants in February. Plants are reminded to make all your travel arrangements through GTM. For additional information, contact John Marcinowski.

BEAZER/APA ISSUES

Final notices letters to Beazer are complete! We realize that reviewing these letters this has been tedious and time-consuming work. However, with your input, we believe we have developed a good product, which will benefit the company in the coming months and years.

EPA INVESTIGATION

Koppers met with EPA in December to discuss the proposed consent order provisions regarding the Management System. We made the case that many provisions of the order are merely restatements of ISO 14000 principles and KII's existing SH&E Management System and by restating the requirement in the order, we open the potential for different interpretations. EPA has requested KII develop this argument in writing to EPA

ENFORCEMENT ACTIONS

See attached

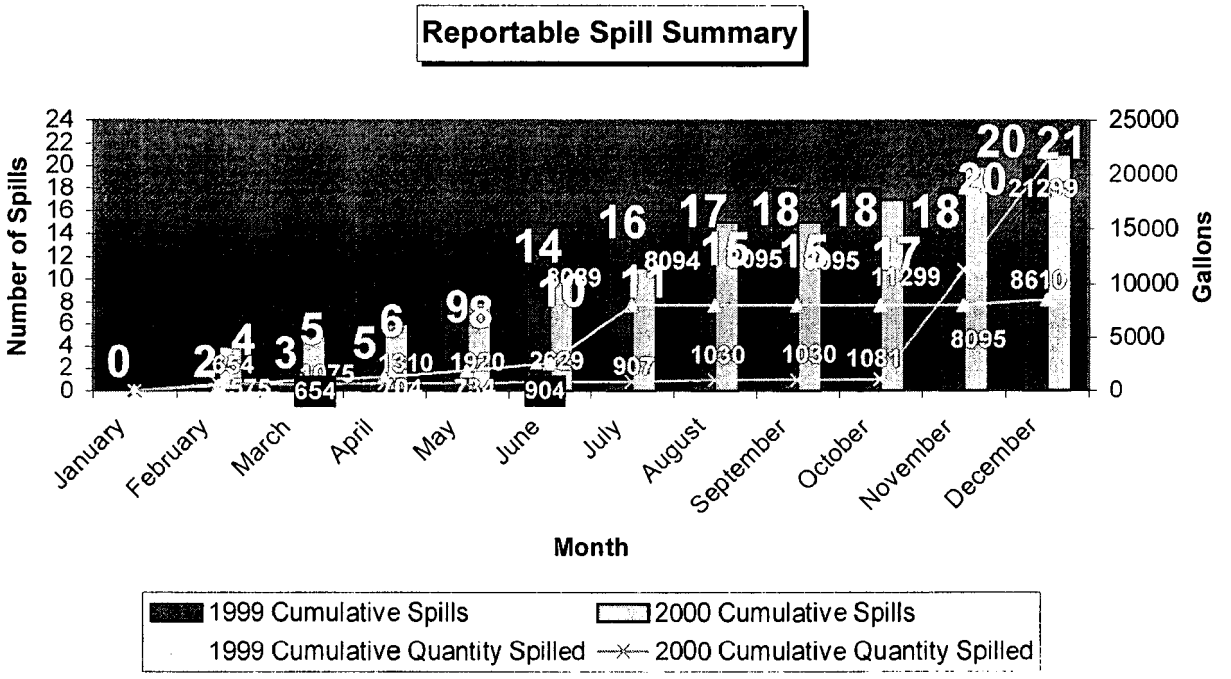
PLANT REPORTS

See attached.

SPILLS

There was1 reportable spill for the month of December 2000, 21 YTD. By comparison, there were 2 reportable spills in December 1999 and 20 for the period January 1999 – November 1999.

The following graph is provided as information:



	2000		
	total	location	quantity
Jan	0		
Feb	4	Clairton	600
		Clairton	50
		Grenada	3
		Stickney	<1
Mar	1	Montgomery	<1
Apr	1	Clairton	50
May	2	Florence	25
		Gainesville	5

	1999		
	total	location	quantity
	0		
	2	Clairton	500
		Follansbee	75
	1	Guthrie	500
	2	Follansbee	225
		NLR	10
	4	Woodward	600
		Green Spring	3
		Follansbee	2
		Florence	5

June	2	Green Spring	20	5	Clairton	5
		Bethlehem Yd	150		Clairton	1
					Montgomery	2
					Montgomery	1
					Logansport	700
July	1	Woodward	3	2	NLR	5
					Follansbee	5455
Aug	4	Green Spring	5	1	Grenada	5
		Stickney	40			
		Florence	3			
		Clairton	75			
Sept	0			1	Follansbee	1
Oct	2	Clairton	50	0		
		Montgomery	1			
	*(NR)	(Logansport)	(40)			
Nov	3	Clairton	6168	0		
		Clairton	50			
		Susquehanna	4000			
Dec	1	Clairton	~~10000~~ 2784	2	Grenada	15
					North Little Rock	500
	* Spill was not Reportable					
TOTAL	21		21298	20		8610
	10		9871	9		6864

Please let me know if you have any questions.

Leslie Hyde

Attachments:
Plant Environmental Report
Enforcement action spreadsheet

cc:

M. Burrous	Alorton	T. Ries	Superior
S. Lish	Clairton	P. Beswick	Susquehanna
F.L. Brown	Denver	M. Mancione	Stickney
W.N. Morris	Feather River	N. Weinstein	Woodward
T. Golubic	Follansbee	R.H. Wombles	Harmarville
M. Sylvester	Florence	W.W. Turner	K-1700
J. Healey	Gainsville	K. Fitzgerald	K-1600
T. Woerle	Galesburg	T. Loadman	K-2050
T. Henderson	Grenada	J. Heller	K-2050
J. Hatch	Green Spring	G. Ambrose	K-2050
H.E. McGough	Guthrie	C.J. Mitchell	K-2000
K. Coker	Logansport	J. Dietz	K-1650
J. Burkhart	Monessen	J. Boan	K-1700

W.L. Hasley	Montgomery	D.E. Davis	K-1700
D. Naugle	N. Little Rock	B. Duke	K-1700
A. Kamerer	Portland	M. Juba	K-1800
M.A. Franck	Roanoke	C. Schaming	K-1750
D.A. Shaw	Sommerville	R. Collins	K-1700
S. Kifer	K-1700	M. Snyder	K-1726
F. Wisniewski	K-2050	D. Kissel	K-1700
J. Kunkle	K-1600		

KOPPERS INDUSTRIES

INTEROFFICE CORRESPONDENCE

TO: See Distribution List

FROM: Leslie Hyde

SUBJECT: Correction - Monthly Report – December 2000

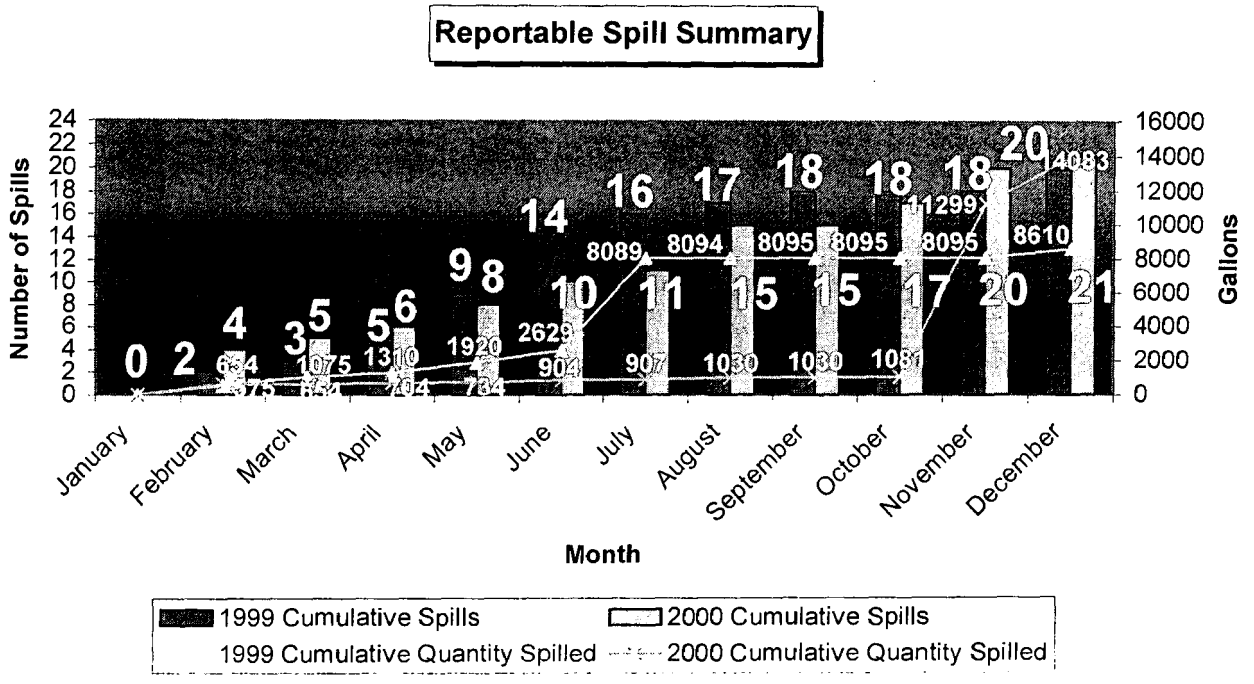
DATE: January 4, 2001

The following is a correction to the December 2000 Environmental Department monthly report.

SPILLS

There was 1 reportable spill for the month of December 2000, 21 YTD. By comparison, there were 2 reportable spills in December 1999 and 20 for the period January 1999 – December 1999.

The following graph is provided as information:



	2000		
	total	location	quantity
Jan	0		
Feb	4	Clairton	600
		Clairton	50
		Grenada	3

	1999		
	total	location	quantity
	0		
	2	Clairton	500
		Follansbee	75

		Stickney	<1			
Mar	1	Montgomery	<1	1	Guthrie	500
Apr	1	Clairton	50	2	Follansbee	225
					NLR	10
May	2	Florence	25	4	Woodward	600
		Gainesville	5		Green Spring	3
					Follansbee	2
					Florence	5
June	2	Green Spring	20	5	Clairton	5
		Bethlehem Yd	150		Clairton	1
					Montgomery	2
					Montgomery	1
					Logansport	700
July	1	Woodward	3	2	NLR	5
					Follansbee	5455
Aug	4	Green Spring	5	1	Grenada	5
		Stickney	40			
		Florence	3			
		Clairton	75			
Sept	0			1	Follansbee	1
Oct	2	Clairton	50	0		
		Montgomery	1			
	*(NR)	(Logansport)	(40)			
Nov	3	Clairton	6168	0		
		Clairton	50			
		Susquehanna	4000			
Dec	1	Clairton	2784	2	Grenada	15
					North Little Rock	500
	* Spill was not Reportable					
TOTAL	21		14082	20		8610

Leslie Hyde

cc:

M. Burrous	Alorton	T. Ries	Superior
S. Lish	Clairton	P. Beswick	Susquehanna
F.L. Brown	Denver	M. Mancione	Stickney
W.N. Morris	Feather River	N. Weinstein	Woodward
T. Golubic	Follansbee	R.H. Wombles	Harmarville
M. Sylvester	Florence	W.W. Turner	K-1700
J. Healey	Gainsville	K. Fitzgerald	K-1600
T. Woerle	Galesburg	T. Loadman	K-2050
T. Henderson	Grenada	J. Heller	K-2050
J. Hatch	Green Spring	G. Ambrose	K-2050
H.E. McGough	Guthrie	C.J. Mitchell	K-2000
K. Coker	Logansport	J. Dietz	K-1650
J. Burkhart	Monessen	J. Boan	K-1700
W.L. Hasley	Montgomery	D.E. Davis	K-1700
D. Naugle	N. Little Rock	B. Duke	K-1700
A. Kamerer	Portland	M. Juba	K-1800

M.A. Franck	Roanoke	C. Schaming	K-1750
D.A. Shaw	Sommerville	R. Collins	K-1700
S. Kifer	K-1700	M. Snyder	K-1726
F. Wisniewski	K-2050	D. Kissel	K-1700
J. Kunkle	K-1600		

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Amos S. Kamerer
Plant Manager

Telephone: 503-286-3681
Fax: 503-285-2831

May 4, 1998

Kathy Amodon
Environmental Specialist
Oregon, D.E.Q.
2020 SW Fourth Ave., #400
Portland, OR 97201-4987

Reference: Fume Recovery System Repair

To confirm our prior conversations, starting Monday, May 11, 1998, our Fume Recovery System will be down for repairs through May 22, 1998.

We are planning to do these repairs in 2 stages during the week days of both weeks, thus the system will be working over the weekend of May 16th and 17th, 1998.

If you have any questions, please give me a call.

Sincerely,

Amos S. Kamerer

cc: W.A. Meisinger, KII, HTC
T.I. Self, KII, K-1800

PORTLAND FIRE BUREAU

HAZARDOUS MATERIALS

BILL HENLE - HAZMAT COORDINATOR
2915 SE 13th Place
Portland, OR 97202
Phone: (503) 823-3946
Fax: (503) 823-3905

285-2831

Fax to: Amos Kamerer
Date: 11/15/96
Time: 0805
Total number of pages including cover: 2

Comments: Hope this helps.

DO NOT WRITE IN THIS SPACE

OREGON STATE FIRE MARSHAL
HAZARDOUS MATERIAL EMERGENCY INCIDENT REPORT

AGENCY REPORT NO. 96-048729

DISTRICT OF INCIDENT: Portland COUNTY: Multnomah DEPT. RESPONDING: Portland

DATE/TIME

MO DAY YEAR: 11/04/96 DAY: ☐ SUN ☐ TUE ☐ THU ☐ SAT ☒ MON ☐ WED ☐ FRI
ALARM TIME: 0226 ARRIVAL TIME: 0240 TIME BACK IN SERVICE: 0330

INCIDENT SCENE

INCIDENT LOCATION: 1200 NW Front Ave CITY: Portland
COUNTY: Multnomah CENSUS TRACT: 43.00 ZIP CODE: 97229

RESPONSIBLE PARTY(IES): Steven Patmore
COMPANY: Wacker Chemicals
ADDRESS: 1200 N.W. Front CITY: Portland STATE: Or.
ZIP CODE: 97229 PHONE: 243-2520 OR:

SCENE TYPE
PUBLIC ROAD ☐ PUBLIC STRUCTURE ☐ PUBLIC LAND ☐ FOREST ☐ OTHER (list) ☐
PRIVATE ROAD ☐ PRIVATE STRUCTURE ☐ PRIVATE LAND ☒ WATERWAY ☐

5. AREA TYPE:
INDUSTRIAL ☒ COMMERCIAL ☐
RESIDENTIAL ☐ RURAL/AGRI ☐
FOREST ☐ OTHER ☐

WEATHER:
AIR ☐ RAIN ☐ FOG ☒ SNOW ☐ ICE ☐ OTHER FACTORS
WIND SPEED: 5 DIRECTION: Undetectable

EMERG. ACTION

AGENCIES RESPONDING: (show # of units)
FIRE 5 HAZMAT TEAM 2 POLICE ___ DEQ ___ PUBLIC WORKS ___ AMBULANCE ___
STATE AGENCY ___ FEDERAL AGENCY ___ RAILROAD ___ OTHER ___

ACTION TAKEN AT THE SCENE: (Check all that apply)

SECURE AREA ☒	HOT ZONE DETERMINED: ☐	ACTIVATE OARS ☐	IDENTIFY HAZ-MAT ☐
CROWD CNTL. ☐	ON-SITE BMS ☐	TRAFFIC CNTL. ☐	EVACUATION ☐
CONTAINMENT ☐	TRANSPORT PT. ☐	EXTINGUISHMENT ☐	DECONTAMINATE ☐
	CLEAN-UP ☐	PUB. INFO. REL. ☐	REMOVE HAZARD ☐

MATERIAL

SOURCE OF INCIDENT:
COMMERCIAL VEHICLE ☐ CAR ☐ TRAIN ☐ SHIP ☐ AIRCRAFT ☐
DRUG LAB ☐ FIXED FACILITY ☐ PIPELINE ☐ OTHER (List) Unknown outside source

4. MATERIAL INVOLVED FUEL ☐ CARGO ☐ PRODUCT ☒ WASTE MATERIAL ☐

CAUSE OF INCIDENT:

DURING DELIVERY/SHIPMENT	☐	DURING STORAGE	☐	DURING MANUFACTURE	☐	ABANDONED/PARKED	☐
NORMAL OPERATION	☒	EXCAVATION	☐	UNAUTHORIZED RELEASE	☐	IN TRANSIT	☐
DURING FIRE/EXPLOSION	☐	CAR CONNECT	☐	DERAILMENT	☐	DOCKED	☐
				DURING REPAIR	☐	MATERIAL NOT RELEASED	☒

6. HAZ-MAT BEHAVIOR ON RELEASE:
INERT/NO REACTION ☐ ENTERED WATERWAY ☐ BECAME AIRBORNE ☐ CONTAMINATED AREA ☐
CAUSED FIRE ☐ CONTRIBUTED TO FIRE ☐ CAUSED EXPLOSION ☐ CONTRIBUTED TO EXPLOSION ☐
OTHER: Caused Nausea to 5-7 employees

7. CHEMICAL/TRADE NAME: Unknown source UN/NA#: ___
CAS # ___
NUMBER OF CONTAINERS: ___ SIZE OF CONTAINERS: ___
AMOUNT AT RISK: ___ LBS. ___ GALS. ___ CUBIC FEET
AMOUNT RELEASED: ___ LBS. ___ GALS. ___ CUBIC FEET
PLEASE LIST REMAINING CHEMICALS INVOLVED ON REVERSE SIDE

8. MATERIAL IDENTITY:

	METHOD	ACCURATE YES	ACCURATE NO		METHOD	ACCURATE YES	ACCURATE NO		METHOD	ACCURATE YES	ACCURATE NO
SHIPPING PAPERS	☐	☐	☐	PLACARDS	☐	☐	☐	RESPONSIBLE PARTY	☒	☐	☒
CHEM-TREC	☐	☐	☐	SFM HAZ-COMM	☐	☐	☐	TEXTBOOKS	☐	☐	☐
ON-SCENE TESTS	☐	☐	☐	OFF-SCENE ANALYSIS	☐	☐	☐	OTHER (List)	☐	☐	☐

9. ESTIMATED PROPERTY LOSS:
VEHICLE & CARGO $ ___ FIXED PROPERTY $ ___ TOTAL ESTIMATED LOSS $ 0

CASUALTIES

10. CASUALTIES:

	INJURIES	DEATHS	ON-SCENE DECON	TREATED ON-SCENE	HOSPITALIZED
FIRE SERVICE	2				
CIVILIAN	5-7				Unknown
OTHER PERSONNEL					

11. PERSON MAKING REPORT: Gregory J. Cannon TITLE: Lieutenant
AGENCY: Portland Fire & Rescue AGENCY ID# 03883 PHONE: 823-3849

DESCRIBE THE CAUSE OF THE INCIDENT IN COMMENTS SECTION ON BACK OF FORM

4-440-170 (R6-87) COMPLETE THE REVERSE SIDE OF THIS FORM

Koppers018382

13. CHEMICAL/TRADE NAME: _____ UN/NA#: _____
CAS# _____
NUMBER OF CONTAINERS: _____ SIZE OF CONTAINERS: _____
AMOUNT AT RISK: _____ LBS. _____ GALS. _____ CUBIC FEET
AMOUNT RELEASED: _____ LBS. _____ GALS. _____ CUBIC FEET

13. CHEMICAL/TRADE NAME: _____ UN/NA#: _____
CAS# _____
NUMBER OF CONTAINERS: _____ SIZE OF CONTAINERS: _____
AMOUNT AT RISK: _____ LBS. _____ GALS. _____ CUBIC FEET
AMOUNT RELEASED: _____ LBS. _____ GALS. _____ CUBIC FEET

13. CHEMICAL/TRADE NAME: _____ UN/NA#: _____
CAS# _____
NUMBER OF CONTAINERS: _____ SIZE OF CONTAINERS: _____
AMOUNT AT RISK: _____ LBS. _____ GALS. _____ CUBIC FEET
AMOUNT RELEASED: _____ LBS. _____ GALS. _____ CUBIC FEET

13. CHEMICAL/TRADE NAME: _____ UN/NA#: _____
CAS# _____
NUMBER OF CONTAINERS: _____ SIZE OF CONTAINERS: _____
AMOUNT AT RISK: _____ LBS. _____ GALS. _____ CUBIC FEET
AMOUNT RELEASED: _____ LBS. _____ GALS. _____ CUBIC FEET

13. CHEMICAL/TRADE NAME: _____ UN/NA#: _____
CAS# _____
NUMBER OF CONTAINERS: _____ SIZE OF CONTAINERS: _____
AMOUNT AT RISK: _____ LBS. _____ GALS. _____ CUBIC FEET
AMOUNT RELEASED: _____ LBS. _____ GALS. _____ CUBIC FEET

13. CHEMICAL/TRADE NAME: _____ UN/NA#: _____
CAS# _____
NUMBER OF CONTAINERS: _____ SIZE OF CONTAINERS: _____
AMOUNT AT RISK: _____ LBS. _____ GALS. _____ CUBIC FEET
AMOUNT RELEASED: _____ LBS. _____ GALS. _____ CUBIC FEET

18. TOTAL AMOUNT RELEASED: _____ LBS. _____ GALS. _____ CUBIC FEET.

19. COMMENTS SECTION

Wacker siltronics Emergency Response Team Captain Steve Palmore was unable to identify gas released into work space areas. He believes it to be from an outside source and not from wacker siltronics. E-7 Patients were sent to Bess Kaiser hospital with nausea. Bess Kaiser notified P.F.D., E-22 & Haz. Mat 23 arrived investigated areas affected and were also unable to identify problem. Wacker siltronic will continue to monitor area and let all personnel in affected areas go home for the rest of the night. Incident history started @ 2300 hrs on 11/8/86 according to Mr. Palmore. Mr Palmore stated the odor had a Natural Gas Mercaptan odor and that they do not utilize any chemical with an odor like that. Wackers monitoring instruments did not pick up any hazardous atmospheres.

CHEM-SECURITY SYSTEMS, INC.

NATIONAL RESPONSE CENTER 1-800-424-8802
OREGON ACCIDENT RESPONSE CENTER 1-800-452-0311

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)* *Form Approved. OMB No. 2050-0039. Expires 9-30-91*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 Manifest Document No. 630 89
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
KOPPERS INDUSTRIES INC
7540 NW ST HELENS RD PORTLAND OREGON 97210

4. Generator's Phone (503) 286-3682

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: CHEM-SECURITY SYSTEMS INC
6. US EPA ID Number: ORD089452353
C. State Transporter's ID: 135008
D. Transporter's Phone

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Chem-Security Systems, Inc.
Star Route
Arlington, Oregon 97812
10. US EPA ID Number: ORD089452353
G. State Facility's ID
H. Facility's Phone: 503-454-2643

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	EPA/I. Waste No.
a. HAZARDOUS WASTE SOLID NOS ORME NA 9188	15	DM	825	G	U051
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a.
b.
c.
d.

K. WPS | Handling Code | Cu. Yd. | Area | S | D | Q | PR | Lbs. | Gal.

15. Special Handling Instructions and Additional Information **Waste Profile Sheet Number(s)**
a.
b. J09414
c.
d.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: JOHN A OXFORD | Signature: [signature] | Month Day Year: 06 30 89

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] | Signature: [signature] | Month Day Year: [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Month Day Year

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

GENERATOR'S COPY

Koppers018384

Public reporting burden for this collection of information is estimated to average 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form.

Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, US Environmental Protection Agency, 401 M St. S.W., Washington D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington D.C. 20503.

Koppers018385

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 Manifest Document No. 01841

2. Page 1 of 2 — Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address
KOPPERS INDUSTRIES, INC.
7540 NW ST HELENS ROAD, PORTLAND, OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number

B. State Generator's ID EXEMPT

5. Transporter 1 Company Name: LAIDLAW ENV. SVCS. CALF (SEA)
6. US EPA ID Number: CAD000083121
C. State Transporter's ID
D. Transporter's Phone (253) 288-2800

7. Transporter 2 Company Name: Laidlaw Envir. Serv.
8. US EPA ID Number: TXD988023305
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
LAIDLAW ENVIRONMENTAL SERVICES, INC.
7842 PROGRESS WAY
DELTA, BC V4G 1A4
10. US EPA ID Number: PS8388
G. State Facility's ID
H. Facility's Phone (604) 940-0894

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE FLAMMABLE SOLIDS, ORGANIC, N.O.S., (CREOSOTE), 4, UN1325, III, RQ(1# CREOSOTE)	R Q	002	DM	00800	P	D001
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes: a. U051, 980305-ORKOP-001, ORKOP-651DLTA +008 2x55gal. b. c. d.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Approval Numbers: a. b. c. d.
WO#: 1841
Emergency
Contact: 1-800-535-5053 (291) Infotrac

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month	Day	Year
T.J. Turner		03	15	98

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
John McTell		03	15	98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Leo Todd	Leo Todd	03	16	98

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
WAYNE MA		03	19	98

Style CF17-6 LABELMASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

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ORIGINAL-RETURN TO GENERATOR

Koppers018386

Public reporting burden for this collection of information is estimated to average 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

Koppers018387

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address
KOPPERS INDUSTRIES, INC.
7540 NW ST HELENS ROAD, PORTLAND, OR 97210
4. Generator's Phone (503) 286 1681

A. State Manifest Document Number
B. State Generator's ID EXEMPT

5. Transporter 1 Company Name | 6. US EPA ID Number
LAIDLAW ENV. SVCS. (OR) (ORA)
C. State Transporter's ID
D. Transporter's Phone (541) 485-3545

7. Transporter 2 Company Name | 8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address | 10. US EPA ID Number
USPCI/LAIDLAW (LAIDLAW ENVIRONMENTAL (ORA55Y))
2 MILES EAST, 7 MILES NORTH EXIT 41 OFF I-80
KNOLLS, UT 84019
G. State Facility's ID
H. Facility's Phone (801) 423-8068

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. NON HAZARDOUS WASTE, SOLID, (TAR)		006	DM	02600	P	D000 (4) none
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes: a. WW78U305-WW-4F-002-07, OR-02-678-310 b. c. d.

K. Handling Codes for Wastes Listed Above
a. H130 b. c. d.

15. Special Handling Instructions and Additional Information
Approval Numbers: a. UNDER DIRECT TI b. c. d.
NOE: 1540
Emergency Contact: 1 800 535 5053 (CHEMTREC) Enforcer

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month	Day	Year
T. Tuerk				

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Greg Montilla		05	05	98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

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GENERATOR COPY

Koppers018388

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Koppers018389

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of | Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address | 10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.						
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		05	03	88

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

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FILE COPY OR STATE COPY

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LAIDLAW ENVIRONMENTAL SERVICES

DRUM INVENTORY SHEET

CUTOMER SITE: Koppers

Non-Radioactive Non-Dioxin Non-Explosive

Page 1 of 1

Container # 980305-ORKOP-002 007
ORKOP-G980310

Stream/Suffix # M#01840

generic profiled

Date: 3-5-98

Packed by: Koppers

Drum Type/Size: 55g SD

WASTE TYPE:
- ☐ INCIN LP
- ☐ Appendix IV LP
- ☐ Dioxin LP
- ☐ Mercury LP
- ☐ Non DOT LP
- ☐ Non RCRA LP
- ☐ State Reg LP
- ☐ Aerosols
- ☐ PCB
- ☐ Cont/Reg
- ☐ Cont/DOT
- ☐ Cont/State
- ☑ Cont/Non
- ☐ Cont/Spec
- ☐ Cont/GnrLA
- ☐ Tranship
- ☐ _____

☐ Div. 2.1	☐ Div 2.2	☐ Div. 2.3
☐ Dlass 3	☐ Div. 4.1	☐ Div. 4.2
☐ Div. 4.3	☐ Div 5.1	☐ Div 5.2
☐ Div.6.1	☐ Div . 6.2	☐ Class 8
☐ Class 9	☐ NHaz Solid	☑ NHas liq.

DISPOSAL

☐ Labpack	☐ LP-BSB	☐ Aero
☐ Kiln burn	☐ Educt/DA	☐ Repack
☐ Shred	☐ Fuel	☐ Blend
☐ Dioxin	☐ Treat	☐ TOX
☐ Landfill	☐ Recycle	☐ PCB
☐ S & E	☐ HG	☑ Grassy

OSHA Carcinogen ☐ YES ☐ NO

INFECTIOUS/MEDICAL WASTE ☐ YES ☐ NO

ASPESTOS: ☐ YES ☐ NO

REPORTING CODES
Form Boca
Source AST
Origin 1
Sys M043

Complete if RCRA metals are present:
Waste can be incinerated because: INCIN LP
☐ >5000TUs ☐ Org/Debris ☐ Organic UHC

Comments/etc: NRC / Grassy

RQ

DOT name Non Hazardous Waste, Solid.

Packing Group:

PIH Description

WASTE DESCTIPTION	CONT. TYPE	CONTAINER SIZE	WEIGHT/VOLUME	RCRA WASTE CODES	STATE CODE	COMMENTS
Tar	M	55g	6 x 600 lbs	None		
6 Drums						

Comments / Approval Information:

Estimated Weight ≈ 3600 lbs ☐ Net ☑ Gross

APPLY BARCODE HERE

RES 50-300 10/97

Koppers018392

LAIDLAW ENVIRONMENTAL SERVICES

FORM A

Customer Notification And Certification

Generator Name/Location: Koppers, Portland, OR

EPA I.D. Number: ORD 027734359

Waste Profile or ARF Designation: ORKOP-G-98030

Manifest Number: 01840

EPA Waste Number(s): None

Waste Analysis Available? Yes (attached) ____ No ✓ On file at receiving facility ____

Unrestricted Waste Notification (*Category 1*)

Mark the statement below if you generate a waste that is not a land disposal restricted waste (the waste has no applicable treatment standards).

☑ *I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is not restricted as specified in 40 CFR §268, Subpart D or any applicable prohibitions set forth in 40 CFR §268.32 or RCRA Section 3004(d).*

Restricted Waste/Debris Notification (*Category 2*)

Mark statement (2a) below if you generate a waste that is restricted from land disposal (the waste has applicable treatment standards). **NOTE-1:** A waste may pass one or more standards and require treatment or be varianced for others. In this case, all applicable categories must be checked. **NOTE-2:** D001, D002 and D012 - D043 wastes must be evaluated for underlying constituents found in 40 CFR §268. 48 (Table UTS), that are reasonably expected to be present. A list of these constituents must be included on **FORM B**, or attached to and accompany this notification with each waste shipment. Mark statement (2b) if you generate a debris waste that will be treated to the alternate debris standards located in 40 CFR §268.45.

☐ **(2a) Restricted Waste Notification**

I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is subject to the treatment standards specified in 40 CFR §268 Subpart D. The waste: (a) must be treated to the appropriate regulatory treatment standard, by the appropriate regulatory treatment method; (b) qualifies for a variance as described in category 3 below; or (c) meets some or all of the standards as described in Category 4 below.

☐ **(2b) Alternate Debris Treatment Notification: This hazardous debris is subject to the alternate treatment standards of 40 CFR §268.45.**

The waste contains the following contaminants subject to treatment [check all that apply]:

_____§268.45(b)(1)- Toxicity characteristic debris;
_____§268.45(b)(2)- Debris contaminated with listed waste;
_____§268.45(b)(3)- Cyanide reactive debris.

Restricted Waste Variance Notification (*Category 3*)

Mark the statement below and list the applicable variance date on **Form B**, if you generate a waste which does not require treatment prior to land disposal because of a variance (including a case-by-case extension under 40 CFR §268.5, a nationwide variance under 40 CFR §268 Subpart C, a no migration petition under 40 CFR §268.6, or other applicable variance).

☐ *I notify pursuant to 40 CFR §268.7(a)(3) that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that this waste is subject to a national capacity variance under 40 CFR §268 Subpart C, or a case-by-case extension under 40 CFR §268.5, or an exemption under 40 CFR §268.6.*

Restricted Waste Certification (Treatment Standards Met) (*Category 4*)

Mark the certification statement below if you generate a waste that is restricted from land disposal (the waste has applicable treatment standards), and the waste meets the standards as generated. **Note:** All applicable constituent standards must be accounted for. A waste may pass one or more standards and require treatment or be variance for other constituents. In this case, all applicable categories must be checked.

☐ *I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA § 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.*

SIGNATURE: [signature] DATE: 3-5-98

PRINT NAME: T. TURNER TITLE: GENERAL FOREMAN

FORM B1 ***(Must be accompanied by Form A)***

Generator Name/Location Koppers, Portland, OR Page 2 of 2

EPA I.D. Number : ORD 027 734 359 Manifest : 01840

Waste Profile or ARF	Category No.	EPA or State Waste Code	Variance Date	Description/Sub Category	Treatability Group (WW or NWW)	Waste Constituents or Legend #
ORKOP-G-980310	1	None		Tar	NWW	Tar

CONSTITUENTS IN SOLVENT, CALIFORNIA LIST AND CHARACTERISTIC WASTES.

F001 - F005 spent solvents

Legend #	Constituent Name
1	Acetone
2	Benzene
3	n-Butyl alcohol
*4	Carbon disulfide
5	Carbon tetrachloride
6	Chlorobenzene
7	Cresol (m-and p-isomers)
8	o-Cresol
*9	Cyclohexanone
10	1,2-Dichlorobenzene
11	Ethyl Acetate
12	Ethyl Benzene
13	Ethyl Ether
14	Isobutyl alcohol
*15	Methanol
16	Methylene Chloride
17	Methyl Ethyl Ketone
18	Methyl isobutyl ketone
19	Nitrobenzene
20	Pyridine
21	Tetrachloroethylene
22	Toluene
23	1,1,1-Trichloroethane
24	1,1,2-Trichloroethane
25	Trichlorothylene
26	1,1,2-Trichloro-1,2,2-trifluoroethane
27	Trichloromonofluoro-methane
28	Xylenes (total)

Legends 29-31 RESERVED

** If these constituents are present alone or in any combination of the three, then non waste water forms of these constituents must be treated to TCLP levels as indicated in §268.40.*

Technology-Based standards For F005 when the constituent is the only listed F00-F005 solvent

Legend #	Constituent Name
32	2-Ethoxyethanool
33	2-Nitropropane

Legends 34-43 RESERVED

CALIFORNIA LIST WASTES

Legend #	Constituent Name
44	Nickel
45	Thallium
46	Cyanide (Liquid)
47	Liquid Polychlorinated Biphenyls (PCB's)
48	Halogenated Organic compounds (HOC's)

SEE BACK FOR THE UNIVERSAL TREATMENT STANDARDS (UTS), Legends 49 - 264

Revised 6/96 585-7512A-585003

Sec. 268.48 Table UTS — Universal Treatment Standards

Legend #	Regulated constituent — common name	Wastewater standard. Concentration in mg/ /2/	Nonwastewater standard. Concentration in mg/kg /3/ unless noted as "mg/l TCLP"
49	Acenaphthylene	0.059	3.4
50	Acenaphthene	0.059	3.4
51	Acetone	0.28	160
52	Acetonitrile	5.6	1.8
53	Acetophenone	0.010	9.7
54	2-Acetylaminofluorene	0.059	140
55	Acrolein	0.29	NA
56	Acrylamide	19	23
57	Acrylonitrile	0.24	84
58	Aldrin	0.021	0.066
59	4-Aminobiphenyl	0.13	NA
60	Aniline	0.81	14
61	Anthracene	0.059	3.4
62	Aramite	0.36	NA
63	alpha-BHC	0.00014	0.066
64	beta-BHC	0.00014	0.066
65	delta-BHC	0.023	0.066
66	gamma-BHC	0.0017	0.066
67	Benzene	0.14	10
68	Benz (a) anthracene	0.059	3.4
69	Benzal chloride	0.055	6.0
70	Benzo (b) fluoranthene (difficult to distinguish from benzo (k) fluoranthene)	0.11	6.8
71	Benzo (k) fluoranthene (difficult to distinguish from benzo (b) fluranthene)	0.11	6.8
72	Benzo (g, h, i) perylene	0.0055	1.8
73	Benzo (a) pyrene	0.061	3.4
74	Bromodichloromethane	0.35	15
75	Methyl bromide (Bromomethane)	0.11	15
76	4-Bromophenyl phenyl ether	0.055	15
77	n-Butyl alcohol	5.6	2.6
78	Butyl benzyl phthalate	0.017	28
79	2-sec-Butyl-4, 6-dinitrophenol (Dinoseb)	0.066	2.5
80	Carbon disulfide	3.8	4.8 mg/l TCLP
81	Carbon tetrachloride	0.057	6.0
82	Chlodane (alpha and gamma isomers)	0.0033	0.26
83	p-Chloroaniline	0.46	16
84	Chlorobenzene	0.057	6.0
85	Chlorobenzilate	0.10	NA
86	2-Chloro-1, 3-butadiene	0.057	0.28
87	Chlorodibromomethane	0.057	15
88	Chloroethane	0.27	6.0
89	bis (2-chloroethoxy) methane	0.036	7.2
90	bis (2-Chloroethyl) ether	0.033	6.0
91	Chloroform	0.046	6.0
92	bis (2-Chloroisopropyl) ether	0.055	7.2
93	p-Chloro-m-cresol	0.018	14
94	2-Chloroethyl vinyl ether	0.062	NA
95	Chloromethane (Methyl chloride)	0.19	30
96	2-Chloronaphthalene	0.055	5.6
97	2-Chlorophenol	0.044	5.7
98	3-Chloropropylene	0.036	30
99	Chrysene	0.059	3.4
100	o-Cresol	0.11	5.6
101	m-Cresol (difficult to distinguish from p-cresol)	0.77	5.6
102	p-Cresol (difficult to distinguish from m-cresol)	0.77	5.6
103	Cyclohexanone	0.36	0.75 mg/l TCLP
104	1, 2-Dibromo-3-chloropropane	0.11	15
105	Ethylene dibromide (1, 2-Dibromoethane)	0.028	15
106	Dibromomethane	0.11	15
107	2, 4-D (2, 4-Dichlorophenoxyacetic acid)	0.72	10
108	o, p'-DDD	0.023	0.087
109	p,p'-DDD	0.023	0.087
110	o,p'-DDE	0.031	0.087
111	p,p'-DDE	0.031	0.087
112	o,p'-DDT	0.0039	0.087
113	p,p'-DDT	0.0039	0.087
114	Dibenz (a ,h) anthracene	0.055	8.2
115	Dibenz (a, e) pyrene	0.061	NA
116	m-Dichlorobenzene	0.036	6.0
117	o-Dichlorobenzene	0.088	6.0
118	p-dichlorobenzene	0.090	6.0
119	Dichlorodifluoromethane	0.23	7.2
120	1,1-Dichloroethane	0.059	6.0
121	1,2-Dichloroethane	0.21	6.0
122	1,1-Dichloroethylene	0.025	6.0
123	trans-1,2-Dichloroethylene	0.054	30
124	2,4-Dichlorophenol	0.044	14
125	2,6-Dichlorophenol	0.044	14
126	1,2-Dichloropropane	0.85	18
127	cis-1,3-Dichloropropylene	0.036	18
128	trans-1,3-Dichloropropylene	0.036	18
129	Dieldrin	0.017	0.13
130	Diethyl phthalate	0.20	28
131	2-4-Dimethyl phenol	0.036	14
132	Dimethyl phthalate	0.047	28
133	Di-n-butyl phthalate	0.057	28
134	1,4-Dinitrobenzene	0.32	2.3
135	4,6-Dinitro-o-cresol	0.28	160
136	2,4-Dinitrophenol	0.12	160
137	2,4-Dinitrotoluene	0.32	140
138	2,6-Dinitrotoluene	0.55	28
139	Di-n-octyl phthalate	0.017	28
140	p-Dimethylaminoazobenzene	0.13	NA
141	Di-n-propylnitrosamine	0.40	14
142	1,4-Dioxane	NA	170
143	Diphenylamine (difficult to distinguish from diphenylnitrosamine)	0.92	13
144	Diphenylnitrosamine (difficult to distinguish from diphenylamine)	0.92	13
145	1,2-Diphenylhydrazine	0.087	NA
146	Disulfoton	0.017	6.2
147	Endosulfan I	0.023	0.066
148	Endosulfan II	0.029	0.13
149	Endosulfan sulfate	0.029	0.13
150	Endrin	0.0028	0.13
151	Endrin Aldehyde	0.025	0.13
152	Ethyl acetate	0.34	33
153	Ethyl cyanide (Propanenitrile)	0.24	360
154	Ethyl benzene	0.057	10
155	Ethyl ether	0.12	160
156	bis (2-Ethylhexyl) phthalate	0.28	28
157	Ethyl methacrylate	0.14	160
158	Ethylene oxide	0.12	NA
159	Famphur	0.017	15
160	Fluoranthene	0.068	3.4
161	Fluorene	0.059	3.4
162	Heptachlor	0.0012	0.066
163	Heptachlor epoxide	0.016	0.066
164	Hexachlorobenzene	0.055	10
165	Hexachlorobutadiene	0.055	5.6
166	Hexachlorocyclopentadiene	0.057	2.4
167	HxCDDs (All Hexachlorodibenzo-p-dioxins)	0.000063	0.001
168	HxCDFs (All Hexachlorodibenzofurans)	0.000063	0.001
169	Hexachloroethane	0.055	30
170	Hexachloropropylene	0.035	30
171	Indeno (1, 2, 3-c, d) pyrene	0.0055	3.4
172	Iodomethane	0.19	65
173	Isobutyl alcohol	5.6	170
174	Isodrin	0.021	0.066
175	Isosafrole	0.081	2.6
176	Kepone	0.0011	0.13
177	Methacrylonitrile	0.24	84
178	Methanol	5.6	0.75 mg/l TCLP
179	Methapyrilene	0.081	1.5
180	Methoxychlor	0.25	0.18
181	3-Methylcholanthrene	0.0055	15
182	4,4-Methylene bis (2-chloroaniline)	0.50	30
183	Methylene chloride	0.089	30
184	Methyl ethyl ketone	0.28	36
185	Methyl isobutyl ketone	0.14	33
186	Methyl methacrylate	0.14	160
187	Methyl methansulfonate	0.18	NA
188	Methyl parathion	0.014	4.6
189	Naphthalene	0.059	5.6
190	2-Naphthylamine	0.52	NA
191	o-Nitroaniline	0.27	14
192	p-Nitroaniline	0.028	28
193	Nitrobenzene	0.068	14
194	5-Nitro-o-toluidine	0.32	28
195	o-Nitrophenol	0.028	13
196	p-Nitrophenol	0.12	29
197	N-Nitrosodiethylamine	0.40	28
198	N-Nitrosodimethylamine	0.40	2.3
199	N-Nitroso-di-n-butylamine	0.40	17
200	N-Nitrosomethylethylamine	0.40	2.3
201	N-Nitrosomorpholine	0.40	2.3
202	N-Nitrosopiperidine	0.013	35
203	N-Nitrosopyrrolidine	0.013	35
204	Parathion	0.014	4.6
205	Total PCBs (sum of all PCB isomers, or all Aroclors)	0.10	10
206	Pentachlorobenzene	0.055	10
207	PeCDDs (All Pentachlorodibenzo-p-dioxins)	0.000063	0.001
208	PeCDFs (All Pentachlorodibenzofurans)	0.000035	0.001
209	Pentachloroethane	0.055	6.0
210	Pentachloronitrobenzene	0.055	4.8
211	Pentachlorophenol	0.089	7.4
212	Phenacetin	0.081	16
213	Phenanthrene	0.059	5.6
214	Phenol	0.039	6.2
215	Phorate	0.021	4.6
216	Phthalic acid	0.055	28
217	Phthalic anhydride	0.055	28
218	Pronamide	0.093	1.5
219	Pyrene	0.067	8.2
220	Pyridine	0.014	16
221	Safrole	0.081	22
222	Silvex (2,4,5-TP)	0.72	7.9
223	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	0.72	7.9
224	1,2,4,5-Tetrachlorobenzene	0.055	14
225	TCDDs (All Tetrachlorodibenzo-p-dioxins)	.000063	.001
226	TCDFs (All Tetrachlorodibenzofurans)	.000063	.001
227	1,1,1,2-Tetrachloroethane	0.057	6.0
228	1,1,2,2-Tetrachloroethane	0.057	6.0
229	Tetrachloroethylene	0.056	6.0
230	2,3,4,6-Tetrachlorophenol	0.030	7.4
231	Toluene	0.080	10
232	Toxaphene	0.0095	2.6
233	Bromoform (Tribromomethane)	0.63	15
234	1,2,4-Trichlorobenzene	0.055	19
235	1,1,1-Trichloroethane	0.054	6.0
236	1,1,2-Trichloroethane	0.054	6.0
237	Trichloroethylene	0.054	6.0
238	Trichloromonofluoromethane	0.020	30
239	2,4,5-Trichlorophenol	0.18	7.4
240	2,4,6-Trichlorophenol	0.035	7.4
241	1,2,3-Trichloropropane	0.85	30
242	1,1,2-Trichloro-1,2,2-trifluoroethane	0.057	30
243	tris-(2,3-Dibromopropyl) phosphate	0.11	0.10
244	Vinyl chloride	0.27	6.0
245	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	0.32	30
246	Antimony	1.9	2.1 mg/l TCLP
247	Arsenic	1.4	5.0 mg/l TCLP
248	Barium	1.2	7.6 mg/l TCLP
249	Beryllium	.082	0.014 mg/l TCLP
250	Cadmium	0.69	0.19 mg/l TCLP
251	Chromium (Total)	2.77	0.86 mg/l TCLP
252	Cyanides (Total) /4/	1.2	590
253	Cyanides (Amenable) /4/	0.86	30
254	Fluoride	35	NA
255	Lead	0.69	0.37 mg/l TCLP
256	Mercury — Nonwastewater from Retort	NA	0.20 mg/l TCLP
257	Mercury — All others	0.15	0.025 mg/l TCLP
258	Nickel	3.98	5.0 mg/l TCLP
259	Selenium	0.82	0.16 mg/l TCLP
260	Silver	0.43	0.30 mg/l TCLP
261	Sulfide	14	NA
262	Thallium	1.4	0.078 mg/l TCLP
263	Vanadium	4.3	0.23 mg/l TCLP
264	Zinc/5/	2.61	5.3 mg/l TCLP

/2/ Concentration standards for wastewaters are expressed in mg/l are based on analysis of composite samples.

/3/ Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40 (d). All concentration standards for nonwastewaters are based on analysis of grab samples.

/4/ Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846m as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

/5/ Zinc is not an "underlying hazardous constituent" in characteristic wastes, according to the definition at 268.2(i).

Note: NA means not applicable.

Koppers018395

SWO# 3238

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 — Manifest Document No. 046844

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS R
PORTLAND, OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 1004684

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.

6. US EPA ID Number: SCD987574647

C. State Transporter's ID:

D. Transporter's Phone: (253) 288-2800

7. Transporter 2 Company Name: MP ENVIRONMENTAL (W) SAFETY-KLEEN (TG) INC

8. US EPA ID Number: CAT000624247

E. State Transporter's ID:

F. Transporter's Phone: (805) 393-1151

9. Designated Facility Name and Site Address: SAFETY-KLEEN (LONE & GRASSY MT.), INC.
3 MILES EAST, 7 MILES NORTH; EXIT 41 OFF I-80
CLIVE, UT 84083

10. US EPA ID Number: UTD991301748

G. State Facility's ID: 253 288 2800

H. Facility's Phone: (801) 323-8900

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	WASTE Environmentally hazardous substances, solid, n.o.s., (Contains Creosote), 9, UN3077, PG-III	X	004	DM	12200	P	U051
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
A: 990118-OSKOP-001-004, 4 X 55gDM, (ERG # 171) (INCIN)
B:
C:
D:

K. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information
Profile Number: a. OSKOP-99M0019d.
b.
c.
SWO# 3238
Emergency Contact:
1-800-451-8346
3E

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR — Printed/Typed Name: TJ Turner — Signature: [signature] — Month Day Year: 10/11/1999

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Michael D. Rabinowitz — Signature: Michael D. Rabinowitz — Month Day Year: 10/11/1999

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: John W. Wallace — Signature: John W. Wallace — Month Day Year: 10/12/1999

FACILITY

19. Discrepancy Indication Space
1999000710 B

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Bicky Fields — Signature: Bicky Fields — Month Day Year: 10/20/1999

Style CF17-6 LABELMASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

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ORIGINAL-RETURN TO GENERATOR

Koppers018396

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

Koppers018397

51 TOTAL 10.00

safety-kleen.

LOAD SUMMARY RECORD

GM 033176

DESTINATION: ☐ STAB ☐ RCRA_____ ☐ TSCA_____

7:22 AM 02 03 99
65680 lb

Arrived	Reconciled	Departed	Dropped	Reviewed	Billing	Manifest Mailed
						2/17

Date	Order No.	Load No.
2-3-99	Multi	1999000710 A-I

10:09 02 03 99
65680 lb (H)
53560 lb THRE
12120 lb NET

Generator	Hauler
Multi	MP

Truck No.	Container No. (s)/Railcar No.
518	3493

Container Type:	Load Count (Rail Only):
ED G TT FB (V) Other	1 2 3 4

Operator Signature	Count	Date
Kelly L. Elton	37	2-3-99

Load Washout Information

(Washout Stamp)

Washout: Yes No	Type: Interior Exterior

Washout Signature	Date

Driver Signature	Date

Item	Comments	Name	Date

Tracking Information	Time	Initials	Comments
Arrival Complete:			
TSD Complete:			
Disposal Complete:			
Washout Complete:			
Departure Complete:			

Safety-Kleen, Grassy Mountain Facility, Tooele County, Utah
(WHITE - Facility CANARY - Generator PINK - Transporter GREEN - Receiving GOLD - Operations

Koppers018398

Form Approved. OMB No. 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No. ORD027734359	Manifest Document No. 04684	22. Page 2	Information in the shaded areas is not required by Federal law.

23. Generator's Name: KOPPERS IND

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 3 Company Name: MPE

25. US EPA ID Number: KAT000624247

N. State Transporter's ID

O. Transporter's Phone: 800-458-3036

26. Transporter 4 Company Name: Safety Kleen (Grassy)

27. US EPA ID Number: UT199120748

P. State Transporter's ID

Q. Transporter's Phone: (801) 323-8900

28 US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						
j.						

S. Handling Codes for Wastes Listed Above

a. b. c. d. e. f. g.

h. i. j.

32. Special Handling Instructions and Additional Information

33. Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
KEN DUNMIRE	[signature]	1 29 99

34. Transporter 4 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
Anthony C. Ronero	[signature]	02 03 99

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY

PRINTED ON RECYCLED PAPER USING SOYBEAN INK

PRINTED WITH SOY INK

EPA Form 8700-22A (Rev. 9-88) Previous editions are obsolete.

ORIGINAL - RETURN TO GENERATOR

Koppers018399

RECEIVED
FEB 22 1999
KOPPERS INDS, INC.
PORTLAND OR

Date: July 28, 1997
Manifest No: 01294630

Certificate of Disposal

Whereas, Meklo Incorporated, d/b/a Eltex Chemical and Supply Company, Inc. is a corporation organized under the laws of the State of Texas with its principal place of business in Houston, Texas and Whereas, Eltex Chemical operates a treatment, storage, and disposal facility processing hazardous and non-hazardous class 1 industrial wastes under the authority of the Federal E.P.A. ID No. TXD074196338 and the Texas Natural Resource Conservation Commission ID No. 30271;

Therefore, Eltex Chemical does hereby issue this certificate to:

Customer: ELTEX ENVIRONMENTAL SERVICES
747 SHERIDAN BLVD., STE 4A
LAKEWOOD, CO 80214

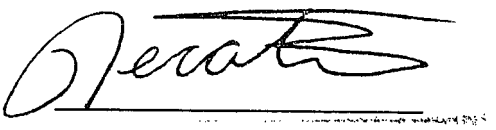
Generator: KOPPERS
7540 NW. ST. HELENS RD
PORTLAND, OR 97210

To evidence treatment and disposal by the following handling codes:

LINE ITEM A: M141, M043
LINE ITEM B: M141, M061, M051
LINE ITEM C: M141, M121, M071
LINE ITEM D: M141, M012, M013

Said treatment, disposal, or recycling has been completed in a manner consistent with acceptable engineering standards and in compliance with applicable rules and regulations set forth by State and Federal authorities on or about the date stated above.

Meklo Incorporated d/b/a Eltex Chemical and Supply Company



RECEIVED

DEC 02 1997

KOPPERS INDS., INC.
PORTLAND, OR

Date: July 28, 1997
Manifest No: 01294629

Certificate of Disposal

Whereas, Meklo Incorporated, d/b/a Eltex Chemical and Supply Company, Inc. is a corporation organized under the laws of the State of Texas with its principal place of business in Houston, Texas and Whereas, Eltex Chemical operates a treatment, storage, and disposal facility processing hazardous and non-hazardous class 1 industrial wastes under the authority of the Federal E.P.A. ID No. TXD074196338 and the Texas Natural Resource Conservation Commission ID No. 30271;

Therefore, Eltex Chemical does hereby issue this certificate to:

Customer: ELTEX ENVIRONMENTAL SERVICES
747 SHERIDAN BLVD., STE 4A
LAKEWOOD, CO 80214

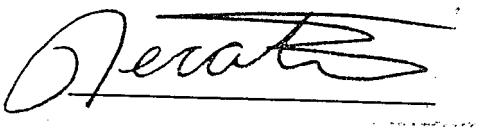
Generator: KOPPERS
7540 NW. ST. HELENS RD
PORTLAND, OR 97210

To evidence treatment and disposal by the following handling codes:

LINE ITEM A: M141, M091
LINE ITEM B: M141, M061, M051
LINE ITEM C: M141, M043
LINE ITEM D: M141, M119, M132

Said treatment, disposal, or recycling has been completed in a manner consistent with acceptable engineering standards and in compliance with applicable rules and regulations set forth by State and Federal authorities on or about the date stated above.

Meklo Incorporated d/b/a Eltex Chemical and Supply Company



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KOPPERS INDS., INC.
PORTLAND, OR

SWD# 3238

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 — Manifest Document No. 046844

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS R
PORTLAND, OR 97210

A. State Manifest Document Number: 1004684

B. State Generator's ID:

4. Generator's Phone (503) 286-3681

5. Transporter 1 Company Name: SAFETY-KLEEN (TS), INC.

6. US EPA ID Number: SCD987574647

C. State Transporter's ID:

D. Transporter's Phone: (253) 280-2800

7. Transporter 2 Company Name: MD ENVIRONMENTAL

8. US EPA ID Number: CAT000624247

E. State Transporter's ID:

F. Transporter's Phone: (805) 393-1151

9. Designated Facility Name and Site Address: SAFETY-KLEEN (LONE & GRASSY MT.), INC.
3 MILES EAST, 7 MILES NORTH; EXIT 41 OFF I-80
CLIVE, UT 84083

10. US EPA ID Number: UT0991301748

G. State Facility's ID:

H. Facility's Phone: (801) 323-8900

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE Environmentally hazardous substances, solid, n.o.s., (Contains Creosote), 9, UN3077, PG-III	X	004	DM		P	(N051
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
A: 990110-OSKOP-001-000, 4 X 55gDM, (ERG # 171) (INCIN)
B:
C:
D:

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Profile Number: a. OSKOP-99MR019d.
b.
c.
SWD# 3238
Emergency Contact:
1-800-451-8346
3E

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
T.J. Turner		01	18	99

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Richard D. Edwards		01	18	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

Style CF17-6 LABELMASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

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Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address	A. State Manifest Document Number
4. Generator's Phone	B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number / C. State Transporter's ID
7. Transporter 2 Company Name	8. US EPA ID Number / E. State Transporter's ID
9. Designated Facility Name and Site Address	10. US EPA ID Number / G. State Facility's ID
	H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No
a.					
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223; U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year

GENERATOR COPY

EPA Form 8700-22 (Rev. 9-89) Previous editions are obsolete.

DESIGNATED FACILITY

TRANSPORTER

GENERATOR

Koppers018406

SWO# 3238

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 Manifest Document No. 04684

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS R
PORTLAND, OR 97210

4. Generator's Phone (503)286-3681

A. State Manifest Document Number 1004684

B. State Generator's ID

5. Transporter 1 Company Name SAFETY-KLEEN (TG), INC.

6. US EPA ID Number SCD987574647

C. State Transporter's ID

D. Transporter's Phone (253)288-2800

7. Transporter 2 Company Name MP ENVIRONMENTAL

8. US EPA ID Number CAT000624247

E. State Transporter's ID

F. Transporter's Phone (805)393-1151

9. Designated Facility Name and Site Address
SAFETY-KLEEN (LONE & GRASSY MT.), INC.
3 MILES EAST, 7 MILES NORTH;EXIT 41 OFF I-80
CLIVE, UT 84083

10. US EPA ID Number UTD991301748

G. State Facility's ID

H. Facility's Phone (801) 323-8900

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	WASTE Environmentally hazardous substances, solid, n.o.s., (Contains Creosote), 9, UN3077, PG-III	004	DM		P	U051
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
A: 990x18-OSKOP-001-00[illegible], 4 X 55gDM, (ERG # 171) (INCIN)
B:
C:
D:

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Profile Number a. OSKOP-99N0019d.
b.
c.

SWO# 3238
Emergency Contact:
1-800-451-8346
3E

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: [illegible] Signature: [illegible] Month Day Year: 01 13 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] Signature: [illegible] Month Day Year: 01 13 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name Signature Month Day Year

GENERATOR / TRANSPORTER / FACILITY

Style CF17-6 LABELMASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

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Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

LAIDLAW ENVIRONMENTAL SERVICES

SWD3238

FORM A

Customer Notification And Certification

Generator Name/Location: Koppers Industries, Inc., Portland OR

EPA I.D. Number: See Form B1

Waste Profile or ARF Designation: n

Manifest Number: n

EPA Waste Number(s): n

Waste Analysis Available? Yes (attached) _____ No X On file at receiving facility _____

Unrestricted Waste Notification (*Category 1*)

Mark the statement below if you generate a waste that is not a land disposal restricted waste (the waste has no applicable treatment standards).

☐ *I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is not restricted as specified in 40 CFR §268, Subpart D or any applicable prohibitions set forth in 40 CFR §268.32 or RCRA Section 3004(d).*

Restricted Waste/Debris Notification (*Category 2*)

Mark statement (2a) below if you generate a waste that is restricted from land disposal (the waste has applicable treatment standards). NOTE-1: A waste may pass one or more standards and require treatment or be varianced for others. In this case, all applicable categories must be checked. NOTE-2: D001, D002 and D012 - D043 wastes must be evaluated for underlying constituents found in 40 CFR §268. 48 (Table UTS), that are reasonably expected to be present. A list of these constituents must be included on FORM B, or attached to and accompany this notification with each waste shipment. Mark statement (2b) if you generate a debris waste that will be treated to the alternate debris standards located in 40 CFR §268.45.

☒ **(2a) Restricted Waste Notification**

I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is subject to the treatment standards specified in 40 CFR §268 Subpart D. The waste: (a) must be treated to the appropriate regulatory treatment standard, by the appropriate regulatory treatment method; (b) qualifies for a variance as described in category 3 below; or (c) meets some or all of the standards as described in Category 4 below.

☐ **(2b) Alternate Debris Treatment Notification: This hazardous debris is subject to the alternate treatment standards of 40 CFR §268.45.**

The waste contains the following contaminants subject to treatment [check all that apply]:

_____§268.45(b)(1) - Toxicity characteristic debris;

_____§268.45(b)(2) - Debris contaminated with listed waste;

_____§268.45(b)(3) - Cyanide reactive debris.

Restricted Waste Variance Notification (*Category 3*)

Mark the statement below and list the applicable variance date on Form B, if you generate a waste which does not require treatment prior to land disposal because of a variance (including a case-by-case extension under 40 CFR §268.5, a nationwide variance under 40 CFR §268 Subpart C, a no migration petition under 40 CFR §268.6, or other applicable variance).

☐ *I notify pursuant to 40 CFR §268.7(a)(3) that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that this waste is subject to a national capacity variance under 40 CFR §268 Subpart C, or a case-by-case extension under 40 CFR §268.5, or an exemption under 40 CFR §268.6.*

Restricted Waste Certification (Treatment Standards Met) (*Category 4*)

Mark the certification statement below if you generate a waste that is restricted from land disposal (the waste has applicable treatment standards), and the waste meets the standards as generated. Note: All applicable constituent standards must be accounted for. A waste may pass one or more standards and require treatment or be variance for other constituents. In this case, all applicable categories must be checked.

☐ *I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA § 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.*

SIGNATURE: _____ DATE: 1/18/99

PRINT NAME: T. Tanner TITLE: Gen Foreman

THIS WASTE DOES NOT CONTAIN ANY DIOXINS, CHLORINATED FURANS, EXPLOSIVES OR RADIOACTIVE MATERIALS. TO9 - INCINERATION

M# 04684
SWD 3238

Container Contents

☒ Bulk ☐ Lab Pack RQ _____

	YEAR	MONTH	DAY	CODE	NUMBER	
Container Number:	99	01	18	DS KOP	- 001-004	Chemist MK
DOT Shipping Name:	WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.					Absorbent C V O
Container Type: DM	Size: 55g	UN/NA Number: 3077		HM X		
Hazard Class:	9, III					

		TK	DS
Profile Number	99MOD19		
Disposal Site	Lone & Gray		
Approval Code			
Reactive Wt.			

Line No.	Material Description	PS	Material Quantity	I.C.	EPA Waste Code Number
01	Debris (Plastic Sheeting, PPE, Wood)	S			U051
02	contaminated w/ creosote				
03					
04					
05					
06	001		300 P		
07	002		"		
08	003		"		
09	004		"		
10	~~[illegible]~~				
11	~~[illegible]~~				
12			1200 P		
13					
14					
15					
16					
17					
18					
19					
20	4x55g DM				
21					
22					
23					
24					
25					
26					
27					
28					

11A

ABSORBENT
C - CORN COB
V - VERMICULITE
O - OTHER

PS - PHYSICAL STATE
L - LIQUID / POURABLE
S - SOLID
X - SLUDGE

IC - INTERNAL CONTAINER
G - GLASS M - METAL
P - PLASTIC F - PAPER

This Lab Pack list continues: Yes ☐ No ☒ This is page 1 of 1

ORIGINAL-FINAL T.S.D. • GREEN-TRANS/CERT • YELLOW-DISPOSER • PINK-1ST T.S.D. • GOLD-GENERATOR 593 - 7520 7/90

Koppers018410

FORM B1 ***(Must be accompanied by Form A)***

Generator Name/Location Koppers Industries, Inc., Portland OR **Page** 2 **of** 2

EPA I.D. Number : ORD 027734359 Manifest : 04684

Waste Profile or ARF	Category No.	EPA or State Waste Code	Variance Date	Description/Sub Category	Treatability Group (WW or NWW)	Waste Constituents or Legend #
21A) OSKOP-99M0019	2	U051	/		NW	

CONSTITUENTS IN SOLVENT, CALIFORNIA LIST AND CHARACTERISTIC WASTES.

F001 - F005 spent solvents

Legend #	Constituent Name
1	Acetone
2	Benzene
3	n-Butyl alcohol
*4	Carbon disulfide
5	Carbon tetrachloride
6	Chlorobenzene
7	Cresol (m-and p-isomers)
8	o-Cresol
*9	Cyclohexanone
10	1,2-Dichlorobenzene
11	Ethyl Acetate
12	Ethyl Benzene
13	Ethyl Ether
14	Isobutyl alcohol
*15	Methanol
16	Methylene Chloride
17	Methyl Ethyl Ketone
18	Methyl isobutyl ketone
19	Nitrobenzene
20	Pyridine
21	Tetrachloroethylene
22	Toluene
23	1,1,1-Trichloroethane
24	1,1,2-Trichloroethane
25	Trichlorothylene
26	1,1,2-Trichloro-1,2,2-trifluoroethane
27	Trichloromonofluoro-methane
28	Xylenes (total)

Legends 29-31 RESERVED

** If these constituents are present alone or in any combination of the three, then non waste water forms of these constituents must be treated to **TCLP** levels as indicated in §268.40.*

Technology-Based standards For F005 when the constituent is the only listed F00-F005 solvent

Legend #	Constituent Name
32	2-Ethoxyethanool
33	2-Nitropropane

Legends 34-43 RESERVED

CALIFORNIA LIST WASTES

Legend #	Constituent Name
44	Nickel
45	Thallium
46	Cyanide (Liquid)
47	Liquid Polychlorinated Biphenyls (PCB's)
48	Halogenated Organic compounds (HOC's)

SEE BACK FOR THE UNIVERSAL TREATMENT STANDARDS (UTS), Legends 49 - 264

Revised 6/96 585-7512-585003

Sec. 268.48 Table UTS— Universal Treatment Standards

Legend #	Regulated constituent — common name	Wastewater standard. Concentration in mg/ /2/	Nonwastewater standard. Concentration in mg/kg /3/ unless noted as "mg/l TCLP"
49	Acenaphthylene	0.059	3.4
50	Acenaphthene	0.059	3.4
51	Acetone	0.28	160
52	Acetonitrile	5.6	1.8
53	Acetophenone	0.010	9.7
54	2-Acetylaminofluorene	0.059	140
55	Acrolein	0.29	NA
56	Acrylamide	19	23
57	Acrylonitrile	0.24	84
58	Aldrin	0.021	0.066
59	4-Aminobiphenyl	0.13	NA
60	Aniline	0.81	14
61	Anthracene	0.059	3.4
62	Aramite	0.36	NA
63	alpha-BHC	0.00014	0.066
64	beta-BHC	0.00014	0.066
65	delta-BHC	0.023	0.066
66	gamma-BHC	0.0017	0.066
67	Benzene	0.14	10
68	Benz (a) anthracene	0.059	3.4
69	Benzal chloride	0.055	6.0
70	Benzo (b) fluoranthene (difficult to distinguish from benzo (k) fluoranthene)	0.11	6.8
71	Benzo (k) fluoranthene (difficult to distinguish from benzo (b) fluranthene)	0.11	6.8
72	Benzo (g, h, i) perylene	0.0055	1.8
73	Benzo (a) pyrene	0.061	3.4
74	Bromodichloromethane	0.35	15
75	Methyl bromide (Bromomethane)	0.11	15
76	4-Bromophenyl phenyl ether	0.055	15
77	n-Butyl alcohol	5.6	2.6
78	Butyl benzyl phthalate	0.017	28
79	2-sec-Butyl-4, 6-dinitrophenol (Dinoseb)	0.066	2.5
80	Carbon disulfide	3.8	4.8 mg/l TCLP
81	Carbon tetrachloride	0.057	6.0
82	Chlodane (alpha and gamma isomers)	0.0033	0.26
83	p-Chloruaniline	0.46	16
84	Chlorobenzene	0.057	6.0
85	Chlorobenzilate	0.10	NA
86	2-Chloro-1, 3-butadiene	0.057	0.28
87	Chlorodibromomethane	0.057	15
88	Chloroethane	0.27	6.0
89	bis (2-chloroethoxy) methane	0.036	7.2
90	bis (2-Chloroethyl) ether	0.033	6.0
91	Chloroform	0.046	6.0
92	bis (2-Chloroisopropyl) ether	0.055	7.2
93	p-Chloro-m-cresol	0.018	14
94	2-Chloroethyl vinyl ether	0.062	NA
95	Chloromethane (Methyl chloride)	0.19	30
96	2-Chloronaphthalene	0.055	5.6
97	2-Chlorophenol	0.044	5.7
98	3-Chloropropylene	0.036	30
99	Chrysene	0.059	3.4
100	o-Cresol	0.11	5.6
101	m-Cresol (difficult to distinguish from p-cresol)	0.77	5.6
102	p-Cresol (difficult to distinguish from m-cresol)	0.77	5.6
103	Cyclohexanone	0.36	0.75 mg/l TCLP
104	1, 2-Dibromo-3-chloropropane	0.11	15
105	Ethylene dibromide (1, 2-Dibromoethane)	0.028	15
106	Dibromomethane	0.11	15
107	2, 4-D (2, 4-Dichlorophenoxyacetic acid)	0.72	10
108	o, p'-DDD	0.023	0.087
109	p,p'-DDD	0.023	0.087
110	o,p'-DDE	0.031	0.087
111	p,p'-DDE	0.031	0.087
112	o,p'-DDT	0.0039	0.087
113	p,p'-DDT	0.0039	0.087
114	Dibenz (a ,h) anthracene	0.055	8.2
115	Dibenz (a, e) pyrene	0.061	NA
116	m-Dichlorobenzene	0.036	6.0
117	o-Dichlorobenzene	0.088	6.0
118	p-dichlorobenzene	0.090	6.0
119	Dichlorodifluoromethane	0.23	7.2
120	1,1-Dichloroethane	0.059	6.0
121	1,2-Dichloroethane	0.21	6.0
122	1,1-Dichloroethylene	0.025	6.0
123	trans-1,2-Dichloroethylene	0.054	30
124	2,4-Dichlorophenol	0.044	14
125	2,6-Dichlorophenol	0.044	14
126	1,2-Dichloropropane	0.85	18
127	cis-1,3-Dichloropropylene	0.036	18
128	trans-1,3-Dichloropropylene	0.036	18
129	Dieldrin	0.017	0.13
130	Diethyl phthalate	0.20	28
131	2-4-Dimethyl phenol	0.036	14
132	Dimethyl phthalate	0.047	28
133	Di-n-butyl phthalate	0.057	28
134	1,4-Dinitrobenzene	0.32	2.3
135	4,6-Dinitro-o-cresol	0.28	160
136	2,4-Dinitrophenol	0.12	160
137	2,4-Dinitrotoluene	0.32	140
138	2,6-Dinitrotoluene	0.55	28
139	Di-n-octyl phthalate	0.017	28
140	p-Dimethylaminoazobenzene	0.13	NA
141	Di-n-propylnitrosamne	0.40	14
142	1,4-Dioxane	NA	170
143	Diphenylamine (difficult to distinguish from diphenylnitrosamine)	0.92	13
144	Diphenylnitrosamine (difficult to distinguish from diphenylamine)	0.92	13
145	1,2-Diphenylhydrazine	0.087	NA
146	Disulfoton	0.017	6.2
147	Endosulfan I	0.023	0.066
148	Endosulfan II	0.029	0.13
149	Endosulfan sulfate	0.029	0.13
150	Endrin	0.0028	0.13
151	Endrin Aldehyde	0.025	0.13
152	Ethyl acetate	0.34	33
153	Ethyl cyanide (Propanenitrile)	0.24	360
154	Ethyl benzene	0.057	10
155	Ethyl ether	0.12	160
156	bis (2-Ethylhexyl) phthalate	0.28	28
157	Ethyl methacrylate	0.14	160
158	Ethylene oxide	0.12	NA
159	Famphur	0.017	15
160	Fluoranthene	0.068	3.4
161	Fluorene	0.059	3.4
162	Heptachlor	0.0012	0.066
163	Heptachlor epoxide	0.016	0.066
164	Hexachlorobenzene	0.055	10
165	Hexachlorobutadiene	0.055	5.6
166	Hexachlorocyclopentadiene	0.057	2.4
167	HxCDDs (All Hexachlorodibenzo-p-dioxins)	0.000063	0.001
168	HxCDFs (All Hexachlorodibenzofurans)	0.000063	0.001
169	Hexachloroethane	0.055	30
170	Hexachloropropylene	0.035	30
171	Indeno (1, 2, 3-c, d) pyrene	0.0055	3.4
172	Iodomethane	0.19	65
173	Isobutyl alcohol	5.6	170
174	Isodrin	0.021	0.066
175	Isosafrole	0.081	2.6
176	Kepone	0.0011	0.13
177	Methacrylonitrile	0.24	84
178	Methanol	5.6	0.75 mg/l TCLP
179	Methapyrilene	0.081	1.5
180	Methoxychlor	0.25	0.18
181	3-Methylcholanthrene	0.0055	15
182	4,4-Methylene bis (2-chloroaniline)	0.50	30
183	Methylene chloride	0.089	30
184	Methyl ethyl ketone	0.28	36
185	Methyl isobutyl ketone	0.14	33
186	Methyl methacrylate	0.14	160
187	Methyl methansulfonate	0.18	NA
188	Methyl parathion	0.014	4.6
189	Naphthalene	0.059	5.6
190	2-Naphthylamine	0.52	NA
191	o-Nitroaniline	0.27	14
192	p-Nitroaniline	0.028	28
193	Nitrobenzene	0.068	14
194	5-Nitro-o-toluidine	0.32	28
195	o-Nitrophenol	0.028	13
196	p-Nitrophenol	0.12	29
197	N-Nitrosodiethylamine	0.40	28
198	N-Nitrosodimethylamine	0.40	2.3
199	N-Nitroso-di-n-butylamine	0.40	17
200	N-Nitrosomethylethylamine	0.40	2.3
201	N-Nitrosomorpholine	0.40	2.3
202	N-Nitrosopiperidine	0.013	35
203	N-Nitrosopyrrolidine	0.013	35
204	Parathion	0.014	4.6
205	Total PCBs (sum of all PCB isomers, or all Aroclors)	0.10	10
206	Pentachlorobenzene	0.055	10
207	PeCDDs (All Pentachlorodibenzo-p-dioxins)	0.000063	0.001
208	PeCDFs (All Pentachlorodibenzofurans)	0.000035	0.001
209	Pentachloroethane	0.055	6.0
210	Pentachloronitrobenzene	0.055	4.8
211	Pentachlorophenol	0.089	7.4
212	Phenacetin	0.081	16
213	Phenanthrene	0.059	5.6
214	Phenol	0.039	6.2
215	Phorate	0.021	4.6
216	Phthalic acid	0.055	28
217	Phthalic anhydride	0.055	28
218	Pronamide	0.093	1.5
219	Pyrene	0.067	8.2
220	Pyridine	0.014	16
221	Safrole	0.081	22
222	Silvex (2,4,5-TP)	0.72	7.9
223	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	0.72	7.9
224	1,2,4,5-Tetrachlorobenzene	0.055	14
225	TCDDs (All Tetrachlorodibenzo-p-dioxins)	.000063	.001
226	TCDFs (All Tetrachlorodibenzofurans)	.000063	.001
227	1,1,1,2-Tetrachloroethane	0.057	6.0
228	1,1,2,2-Tetrachloroethane	0.057	6.0
229	Tetrachloroethylene	0.056	6.0
230	2,3,4,6-Tetrachlorophenol	0.030	7.4
231	Toluene	0.080	10
232	Toxaphene	0.0095	2.6
233	Bromoform (Tribromomethane)	0.63	15
234	1,2,4-Trichlorobenzene	0.055	19
235	1,1,1-Trichloroethane	0.054	6.0
236	1,1,2-Trichloroethane	0.054	6.0
237	Trichloroethylene	0.054	6.0
238	Trichloromonofluoromethane	0.020	30
239	2,4,5-Trichlorophenol	0.18	7.4
240	2,4,6-Trichlorophenol	0.035	7.4
241	1,2,3-Trichloropropane	0.85	30
242	1,1,2-Trichloro-1,2,2-trifluoroethane	0.057	30
243	tris-(2,3-Dibromopropyl) phosphate	0.11	0.10
244	Vinyl chloride	0.27	6.0
245	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	0.32	30
246	Antimony	1.9	2.1 mg/l TCLP
247	Arsenic	1.4	5.0 mg/l TCLP
248	Barium	1.2	7.6 mg/l TCLP
249	Beryllium	.082	0.014 mg/l TCLP
250	Cadmium	0.69	0.19 mg/l TCLP
251	Chromium (Total)	2.77	0.86 mg/l TCLP
252	Cyanides (Total) /4/	1.2	590
253	Cyanides (Amenable) /4/	0.86	30
254	Fluoride	35	NA
255	Lead	0.69	0.37 mg/l TCLP
256	Mercury — Nonwastewater from Retort	NA	0.20 mg/l TCLP
257	Mercury — All others	0.15	0.025 mg/l TCLP
258	Nickel	3.98	5.0 mg/l TCLP
259	Selenium	0.82	0.16 mg/l TCLP
260	Silver	0.43	0.30 mg/l TCLP
261	Sulfide	14	NA
262	Thallium	1.4	0.078 mg/l TCLP
263	Vanadium	4.3	0.23 mg/l TCLP
264	Zinc/5/	2.61	5.3 mg/l TCLP

/2/ Concentration standards for wastewaters are expressed in mg/l are based on analysis of composite samples.

/3/ Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40 (d). All concentration standards for nonwastewaters are based on analysis of grab samples.

/4/ Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846m as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

/5/ Zinc is not an "underlying hazardous constituent" in characteristic wastes, according to the definition at 268.2(i).

Note: NA means not applicable.

Koppers018412

safety-kleen.

MATERIAL PROFILE

Safety-Kleen (SK) Use Only	Bill To: ☒ Same as "A" *or* ☐ Service Center	Customer Number: *ORKOP*	SK Line Of Business #:	Facility Profile #:

A. GENERATOR INFORMATION

☒ *Check if Billing Information is same as Generator Information*

Generator Name: *Koppers Industries, Inc.* | Billing Company:

Facility Address (No P.O. Box): *7540 NW St. Helens Road* | Billing Address:

City/State/Zip: *Portland, OR 97210* | City/State/Zip:

Technical Contact: *T.J. Turner* | Billing Contact:

Phone: *503.286-3681* Fax: *503.285.2831* | Phone: Fax:

Generator Location *(If different from Facility Address)*:

☐ CESQG ☐ SQG US EPA ID #: *ORD027734359* | State Generating ID #: *n/a*

SIC Code: *2800* Origin Code: ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐ 5 Source Code: A *93* Form Code: B *409* System Code: M

B. SHIPPING INFORMATION

☐ *DOT Assistance Requested* ☐ *Check if SK Transportation Services are requested*

US DOT Proper Shipping Name: *Waste Environmentally Hazardous Substances, solid, n.o.s.*

Hazard Class / Division #: *9* ID # (UN / NA): *3077* Packing Group (PG): *III* RQ: *10*

Non-Bulk Shipping Containers					Bulk Shipping Containers	
Size	Steel	Poly	Fiber	Quantity & Frequency	Container Type	Quantity, Size & Frequency
55 Gal	☒	☐	☐	*6*	☐ Yd.^{3} Box *or* ☐ Super Sack	
____ Gal	☐	☐	☐		☐ Hard Top *or* ☐ Tarped Bin	
____ Gal	☐	☐	☐		☐ End Dump (Tarped) Trailer	
____ Gal	☐	☐	☐		☐ Tank *or* ☐ Vacuum Trailer	
Other					Other	

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Material: CREOSOTE *Contaminated Debris, Wipes, PPE, Spill Pads*

Process Generating The Material: *Clean out of feed pipe*

Yes	No		Yes	No	
☐	☒	Regulated or Licensed Radioactive Waste	☐	☒	Exempt Waste; If Yes, list reference, 40 CFR
☐	☒	Regulated Medical / Infectious Waste	☐	☒	State Hazardous Waste; State Code
☐	☒	Regulated Benzene NESHAP Waste	☐	☒	Commingled Waste (2 or more hazardous wastes mixed as one)
☐	☒	TSCA Regulated PCB Waste ***(List any PCB level in Sec.D)***	☐	☒	Meets LDR Standards or ☐ Partially Meets (Landfill Only)
☐	☒	Regulated Subpart CC Waste (VOC's ≥ 500 ppm)	☒	☐	EPA Hazardous Waste
☐	☒	Regulated Ozone Depleting Substance			EPA Waste Codes(including any LDR subcategories, e.g., D003 WaterReactive):
☐	☒	CERCLA Regulated (Superfund) Waste			~~F032~~ U051
☒	☐	Hazardous Debris (Subject to alternative LDR treatment standards)			

D. MATERIAL COMPOSITION

Note: List ALL DETECTABLE COMPONENTS by chemical name; e.g., acetone, asbestos, trichloroethylene; list specific dioxins, OSHA carcinogens, PCB's, pesticides, VOC's by chemical name; plus any other material, e.g., sorbent, debris type & size.

Material Components & Composition	ppm	☐ wt % ☒ vol %	Material Components & Composition	ppm	☐ wt % ☐ vol %
Misc Debris/ Plastic Sheeting/ Wipes / PPE / Wood		*100*			

☐ Check if you have attached Material Safety Data Sheets (MSDS) and/or additional information concerning this waste **Range Total ≥ 100 %**

SAFETY-KLEEN MATERIAL PROFILE (continued): (SK Use Only) - Profile

E. REACTIVE CHARACTERISTICS ☐ *Check if this waste exhibits No Reactive Characteristics*

Yes	No		Yes	No		Yes	No		Yes	No	
☐	☒	Explosive	☐	☒	Oxidizer	☐	☒	Acid Reactive	☐	☒	Reactive Sulfide _____ ppm
☐	☒	Shock Sensitive	☐	☒	Water Reactive	☐	☒	Alkaline Reactive	☐	☒	Polymerizable
☐	☒	Pyrophoric	☐	☒	Air Reactive	☐	☒	Reactive Cyanide _____ ppm	☐	☒	Other Incompatibles list below

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70°F.

# of Phases *1*	Color *varies*	Flash Point _____ °F (if < 73°F)	pH ☐Liquids >20% H_2O *or* pH ☐Non-Aqueous
Liquid %	Odor *mild*	☐ 73 - <100°F ☐100 - 141°F	☐ ≤ 2 pH ☐ > 2 - 4 pH ☒ > 4 - 10 pH
Sludge %	Specific Gravity	☐142°F. - <200°F ☒ ≥200°F	☐ > 10 - < 12.5 pH ☐ ≥ 12.5 pH
Solid % *100*	Viscosity cps	Boiling Point (if < 130°F)	Sorbent Added: ☐None Biodegradable? ☐Yes ☐ No
Powder %	Density	Ash % (Bridgeport Only)	BTU's / lb. or Range *unknown*
Gas %	☐lbs./ gal. ☐lbs./ cu. ft.	Comments	

G. ELEMENTAL INFORMATION ☒ *Check if this waste contains No Detectable Elements / Metals, unless listed below.*

Check either; ☐Total Analysis *or* ☐ TCLP Method, then enter data below.

Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm
Aluminum		Cadmium		Fluorine		Nickel		Sodium	
Antimony		Chlorine		Lead		Phosphorous		Sulfur	
Arsenic		Chromium		Lithium		Potassium		Thallium	
Barium		Cobalt		Manganese		Selenium		Titanium	
Beryllium		Copper		Mercury		Silicon		Vanadium	
Bromine		Iodine		Molybdenum		Silver		Zinc	

H. MATERIAL DISPOSITION OPTIONS ☐ *Check if No Requirement*

 # 1 Recycling / Recovering **# 2** Fuels Blending **# 3** Incineration **# 4** Wastewater Treatment **# 5** Landfill **# 6** Deepwell Injection

List disposition # in order of preference if more than one. Customer Preference # *13* Other Disposition Considered *1*

I. GENERATOR PROFILE CERTIFICATION

I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator that the information supplied on this form and on any attachments or supplements hereto is complete and accurate, and that all known or suspected hazards of the material(s) described herein ~~have~~ been disclosed.

T J Turner — T J Turner Gen Foreman — 12 / 17 / 98

Generator's Authorized Signature | Name & Title (Printed or Typed) | Date

Comments *Landfill through Delta.*

SK Use Only ☐ SKOS ☐ SKVS ☐ Non-haz Evaluation ☐ Standard Industry Profile: SIP Index # _____

SK Sales Rep. Name _____ Employee # _____ Territory/Branch # _____

Waste Approval & Certification

We certify acceptability of this waste stream and that all appropriate permits have been obtained, as indicated by Safety-Kleen's facility approval below:

_____ _____ ____ / ____ / ____

Safety-Kleen's Authorized Facility Signature | Name & Title (Printed or Typed) | Date

Koppers018414

3493 I2953 SWO# 3600 991647

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD027734359 — Manifest Document No.: 11526

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS R
PORTLAND, OR 97210

4. Generator's Phone (503)286-3681

A. State Manifest Document Number: 1011526

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.

6. US EPA ID Number: SCD987574647

C. State Transporter's ID:

D. Transporter's Phone: (253)288-2800

7. Transporter 2 Company Name: MP ENVIRONMENTAL

8. US EPA ID Number: CAT000624247

E. State Transporter's ID:

F. Transporter's Phone: (805)393-1151

9. Designated Facility Name and Site Address:
SAFETY-KLEEN (ARAGONITE), INC
11600 N. APTUS ROAD
ARAGONITE, UT 84029

10. US EPA ID Number: UTD981552177

G. State Facility's ID:

H. Facility's Phone: (801) 323-8156

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	WASTE FLAMMABLE LIQUIDS, n.o.s. (LABPACK), 3, UN 1993, PG II	X	004	DF	00320	P	D001
b.	NON RCRA/NON DOT REGULATED WASTE (LABPACK)		001	DF	00080	P	N/R
c.							
d.							

J. Additional Descriptions for Materials Listed Above
A: 990422-12-KO-001-002, 004-005 # 4x30 gDF, (ERG # 128)
B: 990422-12-KO-003 - 1x30g DF
C: W600479
D: W600477

K. Handling Codes for Wastes Listed Above: T07

15. Special Handling Instructions and Additional Information
Profile Number a. 3013015-12-KO d.
b. 3013015-12-KO
c.
SWO# 3600
Emergency Contact:
1-800-451-8346
3E

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: T.J. Turner — Signature: [signature] — Month Day Year: 04 22 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Michael D. Rabinowitz — Signature: Michael D. Rabinowitz — Month Day Year: 04 22 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: PAT MARTIN — Signature: Pat Martin — Month Day Year: 04 28 99

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Martin Roller — Signature: [signature] — Month Day Year: 05 12 99

GENERATOR / TRANSPORTER / FACILITY

Style CF 17 LABELMASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

ORIGINAL-RETURN TO GENERATOR

PRINTED ON RECYCLED PAPER USING SOYBEAN INK — PRINTED WITH SOY INK

Koppers018415

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) T3953 SWD# 3600 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. ORD027734359 Manifest Document No. 11526	2. Page 1 of 1 Information in the shaded areas is not required by Federal law
3. Generator's Name and Mailing Address KOPPERS INDUSTRIES, INC. 7540 NW ST. HELENS R PORTLAND, OR 97210		A. State Manifest Document Number 1011526
4. Generator's Phone (503) 286-3681		B. State Generator's ID
5. Transporter 1 Company Name SAFETY-KLEEN (TG), INC.	6. US EPA ID Number SCD987574647	C. State Transporter's ID
		D. Transporter's Phone (253) 288-2800
7. Transporter 2 Company Name MP ENVIRONMENTAL	8. US EPA ID Number CAT000624247	E. State Transporter's ID
		F. Transporter's Phone (805) 393-1151
9. Designated Facility Name and Site Address SAFETY-KLEEN (ARAGONITE), INC 11600 N. APTUS ROAD ARAGONITE, UT 84029	10. US EPA ID Number UTD981552177	G. State Facility's ID
		H. Facility's Phone (801) 323-8156

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE FLAMMABLE LIQUIDS, N.O.S. (LABPACK), 3, UN 1993, PG II	X	004	DF	00320	P	D001
b. NON RCRA/NON DOT REGULATED WASTE (LABPACK)		001	DF	00080	P	N/R
c.						
d.						

J. Additional Descriptions for Materials Listed Above
A: 990420
B: 990421
C: 00600479
D: 00600477

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

15. Special Handling Instructions and Additional Information
Profile Number a. 3013015-12-KO d. b. 3013015-12-KO c.
SWD# 3600
Emergency Contact: 1-800-451-8346 3E

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year
[illegible]	[signature]	04/22/99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Michael D. Robinson	[signature]	04/22/99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Pat Martin	[signature]	04/23/99

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name	Signature	Month Day Year
[illegible]	[signature]	04/23/99

ORIGINAL-RETURN TO GENERATOR

Koppers018416

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) D2953

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.	Manifest Document No.	22. Page	Information in the shaded areas is not required by Federal law.
ORD027734359	11526		

23. Generator's Name: KOPPERS INDUSTRIES

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 3 Company Name	25. US EPA ID Number	N. State Transporter's ID
SAFETY-KLEEN (TG) INC	SCD987574647	O. Transporter's Phone 253 288 2800
26. Transporter 4 Company Name	**27. US EPA ID Number**	**P. State Transporter's ID**
MP ENVIRONMENTAL	CAT000624247	Q. Transporter's Phone 805-393-1151

GENERATOR

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	29. Containers No.	29. Containers Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

TRANSPORT ONLY

TRANSPORTER

33. Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Tony W. Mitchell	John W. Mitchell	5 13 99

34. Transporter 4 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
PAT MARTIN	Pat Martin	05/10/99

FACILITY

35. Discrepancy Indication Space

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.: CR002739359

Manifest Document No.: 11526

22. Page

Information in the shaded areas is not required by Federal law.

23. Generator's Name: KOPPERS INDUSTRIES

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 3 Company Name: SAFETY KLEEN (TE) INC

25. US EPA ID Number: [illegible]

N. State Transporter's ID

O. Transporter's Phone: 253 288 2800

26. Transporter 4 Company Name: [illegible]

27. US EPA ID Number: [illegible]

P. State Transporter's ID

Q. Transporter's Phone: 805-393-1151

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.					
b.					
c.					
d.					
e.					
f.					
g.					
h.					
i.					

RECEIVED

MAY 2 0 1999

KOPPERS INDS, INC.
PORTLAND OR

GENERATOR

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

TRANSPORT ONLY

33. Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible]

Signature: [illegible]

Date: Month Day Year: 5 13 99

34. Transporter 4 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible]

Signature: [illegible]

Date: Month Day Year: 05/10/99

35. Discrepancy Indication Space

Koppers018418

3493 I 2953 SWO# 3600 791647

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 Manifest Document No. 11526

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS R
PORTLAND, OR 97210

4. Generator's Phone (503)286-3601

A. State Manifest Document Number 1011526

B. State Generator's ID

5. Transporter 1 Company Name SAFETY-KLEEN (TG), INC.

6. US EPA ID Number SCD987574647

C. State Transporter's ID

D. Transporter's Phone (253) 288-2800

7. Transporter 2 Company Name MP ENVIRONMENTAL

8. US EPA ID Number CAT000624247

E. State Transporter's ID

F. Transporter's Phone (805) 393-1151

9. Designated Facility Name and Site Address
SAFETY-KLEEN (ARAGONITE), INC
11600 N. APTUS ROAD
ARAGONITE, UT 84029

10. US EPA ID Number UTD981552177

G. State Facility's ID

H. Facility's Phone (801) 323-8156

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	WASTE FLAMMABLE LIQUIDS, N.O.S. (LABPACK), 3, UN 1993, PG II	X	004	DF	00320	P	D001
b.	NON RCRA / NON DOT REGULATED WASTE (LABPACK)		001	DF	00080	P	N/R
c.							
d.							

J. Additional Descriptions for Materials Listed Above
A: 990422-12-KO-001-002, 004-005 = 4x30 gDF, (ERG # 128)
B: 990422-12-KO-003 = 1x30g DF
C:
D:

W600479
W600477

K. Handling Codes for Wastes Listed Above
T07

15. Special Handling Instructions and Additional Information
Profile Number a. 3013015-12-KO d.
b. 3013015-12-KO
c.

SWO# 3600
Emergency Contact:
1-800-451-8346
3E

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: T.J. Turner
Signature: [signature]
Month Day Year: 04 22 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Michael D. R[illegible]
Signature: [signature]
Month Day Year: 04 22 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Pat Martin
Signature: Pat Martin
Month Day Year: 04 28 99

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: [illegible]
Signature: [signature]
Month Day Year: 05 27 99

GENERATOR / TRANSPORTER / FACILITY

Style CF 17 LABELMASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

GENERATOR COPY

PRINTED ON RECYCLED PAPER USING SOYBEAN INK — PRINTED WITH SOY INK

Koppers018419

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name — 6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name — 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address — 10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	PM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.							
b.							
c.							
d.							

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

J. Additional Descriptions for Materials Listed Above

K.

L.

M.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year

Style LF, 17 LABEL MASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

GENERATOR COPY

Koppers018420

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.: ORD027734359

Manifest Document No.: 11526

22. Page

Information in the shaded areas is not required by Federal law.

23. Generator's Name: KOPPERS INDUSTRIES

L. State Manifest Document Number: [illegible]

M. State Generator's ID:

24. Transporter 3 Company Name: SAFETY KLEEN (TG) INC

25. US EPA ID Number: SCD987574647

N. State Transporter's ID:

O. Transporter's Phone: 253 288 2800

26. Transporter 4 Company Name: MP ENVIRONMENTAL

27. US EPA ID Number: CAT000624247

P. State Transporter's ID:

Q. Transporter's Phone: 805 393-7151

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

TRANSPORT ONLY

33. Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name: John W. Wallace

Signature: John W. Wallace

Date: Month 5 Day 3 Year 99

34. Transporter 4 Acknowledgement of Receipt of Materials

Printed/Typed Name: PAT MARTIN

Signature: Pat Martin

Date: Month 05 Day 10 Year 99

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY

Style CF 18 Labelmaster, An American Labelmark Co., Chicago, IL 60646 (800) 621-5808

EPA Form 8700-22A (Rev. 9-88) Previous editions are obsolete.

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PRINTED WITH SOY INK

GENERATOR COPY

Koppers018421

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.	Manifest Document No.	22. Page	Information in the shaded areas is not required by Federal

RECEIVED

MAY 20 1999

KOPPERS INDS. INC.
PORTLAND OR

23. Generator's Name

24. Transporter Company Name	25. US EPA ID Number
26. Transporter Company Name	27. US EPA ID Number

L. State Manifest Document Number	
M. State Generator's ID	
N. State Transporter's ID	
O. Transporter's Phone	
P. State Transporter's ID	

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29. Containers No.	29. Containers Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

33. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

34. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

35. Discrepancy Indication Space

GENERATOR COPY

Koppers018422

SWDI# 3600

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 — Manifest Document No. 1011526

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS R
PORTLAND, OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 1011526

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.

6. US EPA ID Number: SCD987574647

C. State Transporter's ID:

D. Transporter's Phone: (253) 288-2000

7. Transporter 2 Company Name: MP ENVIRONMENTAL

8. US EPA ID Number: CAT000624247

E. State Transporter's ID:

F. Transporter's Phone: (805) 393-1151

9. Designated Facility Name and Site Address:
SAFETY-KLEEN (ARAGONITE), INC
11600 N. APTUS ROAD
ARAGONITE, UT 84029

10. US EPA ID Number: UTD988152177

G. State Facility's ID:

H. Facility's Phone: (801) 323-8156

GENERATOR

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	WASTE FLAMMABLE LIQUIDS, N.O.S. (LABPACK), 3, UN 1993, PG II	X	004	DF	0032	P	D001
b.	NON RCRA (NON DOT REGULATED WASTE (LABPACK)		001	DF	0008		N/R
c.							
d.							

J. Additional Descriptions for Materials Listed Above
A: 990422-12-KO-[illegible] 4x30gDF, (ERG # 128)
B: 990422-12-KO-0003 - 1x 30g DF
C:
D:

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Profile Number a. 3013015-12-KO d.
b. 3013015-12-KO
c.

SWDI# 3600
Emergency Contact:
1-800-451-8346
3E

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
T.J. Turner		04	12	97

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
			13	97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

Style CF 17 LABELMASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

FILE COPY OR STATE COPY

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Public reporting burden for this collection of information is estimated to average 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

LAIDLAW ENVIRONMENTAL SERVICES

SWD 3600

FORM A

Customer Notification And Certification

Generator Name/Location: Koppers Industries, Inc., Portland, OR

EPA I.D. Number: See Form B1

Waste Profile or ARF Designation: "

Manifest Number: "

EPA Waste Number(s): "

Waste Analysis Available? Yes (attached) ____ No X On file at receiving facility ____

Unrestricted Waste Notification (*Category 1*)

Mark the statement below if you generate a waste that is not a land disposal restricted waste (the waste has no applicable treatment standards).

☒ *I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is not restricted as specified in 40 CFR §268, Subpart D or any applicable prohibitions set forth in 40 CFR §268.32 or RCRA Section 3004(d).*

Restricted Waste/Debris Notification (*Category 2*)

Mark statement (2a) below if you generate a waste that is restricted from land disposal (the waste has applicable treatment standards). NOTE-1: A waste may pass one or more standards and require treatment or be varianced for others. In this case, all applicable categories must be checked. NOTE-2: D001, D002 and D012 - D043 wastes must be evaluated for underlying constituents found in 40 CFR §268. 48 (Table UTS), that are reasonably expected to be present. A list of these constituents must be included on FORM B, or attached to and accompany this notification with each waste shipment. Mark statement (2b) if you generate a debris waste that will be treated to the alternate debris standards located in 40 CFR §268.45.

☒ **(2a) Restricted Waste Notification**

I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is subject to the treatment standards specified in 40 CFR §268 Subpart D. The waste: (a) must be treated to the appropriate regulatory treatment standard, by the appropriate regulatory treatment method; (b) qualifies for a variance as described in category 3 below; or (c) meets some or all of the standards as described in Category 4 below.

☐ **(2b) Alternate Debris Treatment Notification: This hazardous debris is subject to the alternate treatment standards of 40 CFR §268.45.**

The waste contains the following contaminants subject to treatment [check all that apply]:

_____ §268.45(b)(1) - Toxicity characteristic debris;

_____ §268.45(b)(2) - Debris contaminated with listed waste;

_____ §268.45(b)(3) - Cyanide reactive debris.

Restricted Waste Variance Notification (*Category 3*)

Mark the statement below and list the applicable variance date on Form B, if you generate a waste which does not require treatment prior to land disposal because of a variance (including a case-by-case extension under 40 CFR §268.5, a nationwide variance under 40 CFR §268 Subpart C, a no migration petition under 40 CFR §268.6, or other applicable variance).

☐ *I notify pursuant to 40 CFR §268.7(a)(3) that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that this waste is subject to a national capacity variance under 40 CFR §268 Subpart C, or a case-by-case extension under 40 CFR §268.5, or an exemption under 40 CFR §268.6.*

Restricted Waste Certification (Treatment Standards Met) (*Category 4*)

Mark the certification statement below if you generate a waste that is restricted from land disposal (the waste has applicable treatment standards), and the waste meets the standards as generated. Note: All applicable constituent standards must be accounted for. A waste may pass one or more standards and require treatment or be variance for other constituents. In this case, all applicable categories must be checked.

☐ *I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA § 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.*

SIGNATURE: _____ DATE: 4-22-99

PRINT NAME: T F Turner TITLE: Gen Foreman

THIS WASTE DOES NOT CONTAIN ANY DIOXINS, CHLORINATED FURANS, EXPLOSIVES OR RADIOACTIVE MATERIALS. TO9 - INCINERATION

Container Contents

M# 11526
SWD 3600

☐ Bulk ☒ Lab Pack RQ

	YEAR	MONTH	DAY	CODE	NUMBER	
Container Number:	99	04	22	TS 12K0 -	005	Chemist MDR
DOT Shipping Name: WASTE FLAMMABLE LIQUIDS, n.o.s.						Absorbent C V O
Container Type: DF Size: 30g				UN/NA Number: 1993	HM X	
Hazard Class: 3, II						

		TK	DS
Profile Number	3013015		
Disposal Site	Aptus		
Approval Code			
Reactive Wt.			

Line No.	Material Description	PS	Material Quantity	I.C.	EPA Waste Code Number
11A 01	Adhesive w/ petroleum distillate	X	3x G (2/3)	M	D001
02	Stain w/ "	L	3x G (1/2)	M	D001
03	Wash Primer part B w/ pet. dist	L	15x QT	P	D001
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					

BOP

1x30g DF

MDR

ABSORBENT
C - CORN COB
V - VERMICULITE
O - OTHER

PS - PHYSICAL STATE
L - LIQUID / POURABLE
S - SOLID
X - SLUDGE

IC - INTERNAL CONTAINER
G - GLASS M - METAL
P - PLASTIC F - PAPER

This Lab Pack list continues: Yes ☐ No ☒ This is page 1 of 1

ORIGINAL-FINAL T.S.D. • GREEN-TRANS/CERT • YELLOW-DISPOSER • PINK-1ST T.S.D. • GOLD-GENERATOR

593 - 7520 7/90

Koppers018426

THIS WASTE DOES NOT CONTAIN ANY DIOXINS, CHLORINATED FURANS, EXPLOSIVES OR RADIOACTIVE MATERIALS. TO9 - INCINERATION

MTF 11526
SWO 3600

Container Contents

☐ Bulk ☒ Lab Pack RQ

	YEAR	MONTH	DAY	CODE	NUMBER	
Container Number:	99	04	22	12K0	- 004	Chemist: MDK
DOT Shipping Name: WASTE FLAMMABLE LIQUIDS, L.O.S.						Absorbent: C/V/O
Container Type: DF Size: 30g	UN/NA Number: 1993				HM: X	
Hazard Class: 3, II						

		TK	DS
Profile Number	3013015		
Disposal Site	Aptus		
Approval Code			
Reactive Wt:			

Line No.	Material Description	PS	Material Quantity	I.C.	EPA Waste Code Number
1(A) 01	Wash Primer Part A w/ petroleum distillate	L	6 X G (2/3)	M	D001
02	Pigment w/ zinc	S	4 X G	M	—
03	Paint Thinner	L	1 X G (1/2)	M	D001
04	Stain w/ petroleum distillates	L	3 X G (2/3)	M	D001
05					
06					
07					
08			80P		
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					

1 X 30g DF
MDK

ABSORBENT
C - CORN COB
V - VERMICULITE
O - OTHER

PS - PHYSICAL STATE
L - LIQUID / POURABLE
S - SOLID
X - SLUDGE

IC - INTERNAL CONTAINER
G - GLASS M - METAL
P - PLASTIC F - PAPER

This Lab Pack list continues: Yes ☐ No ☒ This is page 1 of 1

ORIGINAL-FINAL T.S.D. • GREEN-TRANS/CERT • YELLOW-DISPOSER • PINK-1ST T.S.D. • GOLD-GENERATOR

593 - 7520 7/90

Koppers018427

THIS WASTE DOES NOT CONTAIN ANY DIOXINS, CHLORINATED FURANS, EXPLOSIVES OR RADIOACTIVE MATERIALS. TO9 - INCINERATION

M# 11526
SWO 3600

Container Contents

☐ Bulk ☒ Lab Pack RQ _____

	YEAR	MONTH	DAY	CODE	NUMBER	
Container Number:	99	04	22	12K0	-001	Chemist MDR
DOT Shipping Name: WASTE FLAMMABLE LIQUIDS, n.o.s.						Absorbent C V O
Container Type: DF Size: 30g	UN/NA Number: 1993				HM X	
Hazard Class: 3, II						

		TK	DS
Profile Number	3013015		
Disposal Site	APNS		
Approval Code			
Reactive Wt.			

Line No.	Material Description	PS	Material Quantity	I.C.	EPA Waste Code Number
11A 01	Wash primer w/ petroleum distillate	L	6 x G (1/2)	M	D001
02	Coating Part A w/ "		1 x 5g (1/2)	M	D001
03					
04					
05					
06					
07			80P		
08					
09			X		
10			2 DRUMS		
11					
12			||		
13					
14			160P		
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26	2x30g DF				
27	MDR				
28					

ABSORBENT
C - CORN COB
V - VERMICULITE
O - OTHER

PS - PHYSICAL STATE
L - LIQUID / POURABLE
S - SOLID
X - SLUDGE

IC - INTERNAL CONTAINER
G - GLASS M - METAL
P - PLASTIC F - PAPER

This Lab Pack list continues: Yes ☐ No ☒ This is page 1 of 1

ORIGINAL-FINAL T.S.D. • GREEN-TRANS/CERT • YELLOW-DISPOSER • PINK-1ST T.S.D. • GOLD-GENERATOR

593 - 7520 7/90

Koppers018428

LAIDLAW ENVIRONMENTAL SERVICES

SWO 3600

Form D

Lab Pack Waste Customer Notification/Certification (Category 6)

Generator Name/Location: Koppers Industries, Inc., Portland, Inc.

EPA I.D. Number ORD027734359 **Manifest Number** 11526

Restricted Waste Notification (Category 2)

Check this category and category 6 below if you are managing lab pack wastes that are restricted from land disposal (the waste has applicable treatment standards), **AND** if the lab pack does not contain any of the restricted waste codes listed in 40 CFR Part 268 Appendix IV.

☒ *I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is subject to the alternate treatment standards for lab packs specified in 40 CFR Part 268.42(c).*

Drum Number, Waste Profile or ARF Number	State/EPA Waste Numbers	WW/ NWW
11A) 30130151S-12-KO	D001	NWW

Drum Number, Waste Profile or ARF Number	State/EPA Waste Numbers	WW/ NWW

Lab Pack Certification (Category 6)

☒ *I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes which have not been excluded under appendix IV to part 268 or solid waste not subject to regulation under 40 CFR 261. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.*

Unrestricted Waste Notification (Category 1)
Mark this category if you are managing lab pack wastes that are not subject to the land disposal restrictions (the waste have no applicable treatment standards).

☒ *I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste not restricted as specified in 40 CFR Part 268, Subpart D and all applicable prohibitions set forth in 40 CRF 268.32 or RCRA Section 3004(d).*

Drum Number, Waste Profile or ARF Number	State/EPA Waste Numbers
11B) 30130151S-12-KO	N/R

Drum Number, Waste Profile or ARF Number	State/EPA Waste Numbers

SIGNATURE: [signature] **DATE:** 4-22-99

PRINT NAME: J.J. Tarver **TITLE:** Gen Foreman

THIS WASTE DOES NOT CONTAIN ANY DIOXINS, CHLORINATED FURANS, EXPLOSIVES OR RADIOACTIVE MATERIALS. TO9 - INCINERATION

M# 11526
SWO 3600

Container Contents

☐ Bulk ☒ Lab Pack RQ

	YEAR	MONTH	DAY	CODE	NUMBER	
Container Number:	99	04	22	~~TS~~ 12	140- 003	Chemist MOR
DOT Shipping Name: Non-RRA / Non DOT Regulated Waste						Absorbent C ~~V~~ O
Container Type: DF Size: 30g				UN/NA Number: —	HM	
Hazard Class:						

		TK	DS
Profile Number	3013015		
Disposal Site	Aptus		
Approval Code			
Reactive Wt.			

	Line No.	Material Description	PS	Material Quantity	I.C.	EPA Waste Code Number
11B	01	Latex Paint	L	14 x 1g (2/3)	M	—
	02			3 x QT (1/2)	M	
	03					
	04					
	05					
	06			80P		
	07					
	08					
	09					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					

1 x 30g DF

ABSORBENT
C - CORN COB
V - VERMICULITE
O - OTHER

PS - PHYSICAL STATE
L - LIQUID / POURABLE
S - SOLID
X - SLUDGE

IC - INTERNAL CONTAINER
G - GLASS M - METAL
P - PLASTIC F - PAPER

This Lab Pack list continues: Yes ☐ No ☒ This is page 1 of 1

ORIGINAL-FINAL T.S.D. • GREEN-TRANS/CERT • YELLOW-DISPOSER • PINK-1ST T.S.D. • GOLD-GENERATOR 593-7520 7/90

Koppers018430

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) SWO# 3600 Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 Manifest Document No. 11524

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS R
PORTLAND, OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 1011524

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.

6. US EPA ID Number: SCD987574647

C. State Transporter's ID:

D. Transporter's Phone: (253) 288-2800

7. Transporter 2 Company Name: MP ENVIRONMENTAL

8. US EPA ID Number: CAT000624247

E. State Transporter's ID:

F. Transporter's Phone: (805) 393-1151

9. Designated Facility Name and Site Address:
SAFETY-KLEEN LTD. (DELTA)
7842 PROGRESS WAY
DELTA, BC V4G 1A4

10. US EPA ID Number: PG8388

G. State Facility's ID:

H. Facility's Phone: (604) 940-0894

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. 10	X	WASTE Paint, (OIL PAINT), 3, UN1263, PG-II	001	CF ~~D.M~~	01200	P	D001
b. 11		NON RCRA / NON DOT REGULATED WASTE (TAR)	002	D.M	00600	P	
c.							
d.							

J. Additional Descriptions for Materials Listed Above
A: 990422-12-KO-001, 1 X gaylord box, (ERG # 127)
B: 990422-12-KO-003-002, 2 X 55g DM
C:
D: WX00477

K. Handling Codes for Wastes Listed Above
PAINT OF EXIT: BLAINE WA.
May 6/99

15. Special Handling Instructions and Additional Information
Profile Number a. 3013010-12-KO d.
b. 3013011-12-KO
c.
SWO# 3600
Emergency Contact:
1-800-451-8346
3E

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: TJ TURNER — Signature: [signature] — Month Day Year: 04 22 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Michael D. Rabinowitz — Signature: Michael D. Rabinowitz — Month Day Year: 04 22 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: PAT MARTIN — Signature: Pat Martin — Month Day Year: 04 28 99

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: OTIS Rechord — Signature: [signature] — Month Day Year: 05 17 99

Style CF 17 LABELMASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

ORIGINAL-RETURN TO GENERATOR

PRINTED ON RECYCLED PAPER USING SOYBEAN INK — PRINTED WITH SOY INK

Koppers018431

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

RECEIVED

JUN 2 8 1999

KOPPERS INDS, INC.
PORTLAND OR

THIS WASTE DOES NOT CONTAIN ANY DIOXINS, CHLORINATED FURANS, EXPLOSIVES OR RADIOACTIVE MATERIALS. TO9 - INCINERATION

Container Contents

MF 11524
SUD 3602

~~Bulk~~ LOOSE PACK ☐ Lab Pack RQ

	YEAR	MONTH	DAY	CODE	NUMBER	
Container Number:	9	0	4	22 ~~PS~~ 12	K0 - 0021	Chemist: MK
DOT Shipping Name: WASTE PAINT						Absorbent: C V O
Container Type: 4 WOOD Size: 30 YD.	UN/NA Number: 1263				HM: X	
Hazard Class: 3 PG II						

	TK	DS
Profile Number: 3013012		
Disposal Site: Delta		
Approval Code:		
Reactive Wt.		

Line No.	Material Description	PS	Material Quantity	I.C.	EPA Waste Code Number
01	Oil Based Paint 4/1 gallon	L			D001
02	Latex		8 x 5g	P	
03			60 x 1g	M	
04			2 x QT	M	
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					

Applied to our credit on the account

1 x 30 yard box MK

ABSORBENT
C - CORN COB
V - VERMICULITE
O - OTHER

PS - PHYSICAL STATE
L - LIQUID / POURABLE
S - SOLID
X - SLUDGE

IC - INTERNAL CONTAINER
G - GLASS M - METAL
P - PLASTIC F - PAPER

This Lab Pack list continues: Yes ☐ No ☒ This is page _____ of _____

ORIGINAL-FINAL T.S.D. • GREEN-TRANS/CERT • YELLOW-DISPOSER • PINK-1ST T.S.D. • GOLD-GENERATOR

593 - 7520 7/90

Koppers018433

THIS WASTE DOES NOT CONTAIN ANY DIOXINS, CHLORINATED FURANS, EXPLOSIVES OR RADIOACTIVE MATERIALS. TO9 - INCINERATION

M# 11524
SWO 3600

Container Contents

~~☐ Bulk~~ LOOSE PACK ☐ Lab Pack RQ

	YEAR	MONTH	DAY	CODE	NUMBER	
Container Number:	99	04	22	~~9~~ S 2 K 0	- 002 - 003	Chemist MDR
DOT Shipping Name: Non RCRA/Non DOT Regulated Waste						Absorbent C V O
Container Type: DM Size: 55g	UN/NA Number:				HM	
Hazard Class:						

		TK	DS
Profile Number	3013011		
Disposal Site	Delta		
Approval Code			
Reactive Wt.			

Line No.	Material Description	PS	Material Quantity	I.C.	EPA Waste Code Number
11B) 01	Tar/Roof Patch/Asphalt	X			—
~~02~~	Liquid				
03					
04	~~[illegible]~~				
05	~~[illegible]~~		~~[illegible]~~		
06					
07					
08	-002		3x5g	M	—
09			2x1g	n	
10			10xQT	n	
11					
12					
13			300P		
14					
15					
16	-003		3x5g	M	
17			3x1g	M	
18			24xQT	M	
19					
20					
21			300P		
22					
23					
24					
25					
26					
27					
28					

2x55g DM
MDR

ABSORBENT
C - CORN COB
V - VERMICULITE
O - OTHER

PS - PHYSICAL STATE
L - LIQUID / POURABLE
S - SOLID
X - SLUDGE

IC - INTERNAL CONTAINER
G - GLASS M - METAL
P - PLASTIC F - PAPER

This Lab Pack list continues: Yes ☐ No ☒ This is page 1 of 1

ORIGINAL-FINAL T.S.D. • GREEN-TRANS/CERT • YELLOW-DISPOSER • PINK-1ST T.S.D. • GOLD-GENERATOR 593-7520 7/90

Koppers018434

FORM B1 ***(Must be accompanied by Form A)***

Generator Name/Location Koppers Industries, Inc., Portland, OR **Page** 2 **of** 2

EPA I.D. Number : ORD 027734359 Manifest : 11524

	Waste Profile or ARF	Category No.	EPA or State Waste Code	Variance Date	Description/Sub Category	Treatability Group (WW or NWW)	Waste Constituents or Legend #
11A	301301O-12-KO	2	D001	/	Paint	WWW	
11B	301301I-12-KO	1	/	/	Tar	▼	

CONSTITUENTS IN SOLVENT, CALIFORNIA LIST AND CHARACTERISTIC WASTES.

F001 - F005 spent solvents

Legend #	Constituent Name
1	Acetone
2	Benzene
3	n-Butyl alcohol
*4	Carbon disulfide
5	Carbon tetrachloride
6	Chlorobenzene
7	Cresol (m-and p-isomers)
8	o-Cresol
*9	Cyclohexanone
10	1,2-Dichlorobenzene
11	Ethyl Acetate
12	Ethyl Benzene
13	Ethyl Ether
14	Isobutyl alcohol
*15	Methanol
16	Methylene Chloride
17	Methyl Ethyl Ketone
18	Methyl isobutyl ketone
19	Nitrobenzene
20	Pyridine
21	Tetrachloroethylene
22	Toluene
23	1,1,1-Trichloroethane
24	1,1,2-Trichloroethane
25	Trichlorothylene
26	1,1,2-Trichloro-1,2,2-trifluoroethane
27	Trichloromonofluoro-methane
28	Xylenes (total)

Legends 29-31 RESERVED

** If these constituents are present alone or in any combination of the three, then non waste water forms of these constituents must be treated to TCLP levels as indicated in §268.40.*

Technology-Based standards For F005 when the constituent is the only listed F00-F005 solvent

Legend #	Constituent Name
32	2-Ethoxyethanool
33	2-Nitropropane

Legends 34-43 RESERVED

CALIFORNIA LIST WASTES

Legend #	Constituent Name
44	Nickel
45	Thallium
46	Cyanide (Liquid)
47	Liquid Polychlorinated Biphenyls (PCB's)
48	Halogenated Organic compounds (HOC's)

SEE BACK FOR THE UNIVERSAL TREATMENT STANDARDS (UTS), Legends 49 - 264

Revised 6/96 585-7512A-585003

Sec. 268.48 Table UTS — Universal Treatment Standards

Legend #	Regulated constituent — common name	Wastewater standard. Concentration in mg/ /2/	Nonwastewater standard. Concentration in mg/kg /3/ unless noted as "mg/l TCLP"
49	Acenaphthylene	0.059	3.4
50	Acenaphthene	0.059	3.4
51	Acetone	0.28	160
52	Acetonitrile	5.6	1.8
53	Acetophenone	0.010	9.7
54	2-Acetylaminofluorene	0.059	140
55	Acrolein	0.29	NA
56	Acrylamide	19	23
57	Acrylonitrile	0.24	84
58	Aldrin	0.021	0.066
59	4-Aminobiphenyl	0.13	NA
60	Aniline	0.81	14
61	Anthracene	0.059	3.4
62	Aramite	0.36	NA
63	alpha-BHC	0.00014	0.066
64	beta-BHC	0.00014	0.066
65	delta-BHC	0.023	0.066
66	gamma-BHC	0.0017	0.066
67	Benzene	0.14	10
68	Benz (a) anthracene	0.059	3.4
69	Benzal chloride	0.055	6.0
70	Benzo (b) fluoranthene (difficult to distinguish from benzo (k) fluoranthene)	0.11	6.8
71	Benzo (k) fluoranthene (difficult to distinguish from benzo (b) fluranthene)	0.11	6.8
72	Benzo (g, h, i) perylene	0.0055	1.8
73	Benzo (a) pyrene	0.061	3.4
74	Bromodichloromethane	0.35	15
75	Methyl bromide (Bromomethane)	0.11	15
76	4-Bromophenyl phenyl ether	0.055	15
77	n-Butyl alcohol	5.6	2.6
78	Butyl benzyl phthalate	0.017	28
79	2-sec-Butyl-4, 6-dinitrophenol (Dinoseb)	0.066	2.5
80	Carbon disulfide	3.8	4.8 mg/l TCLP
81	Carbon tetrachloride	0.057	6.0
82	Chlodane (alpha and gamma isomers)	0.0033	0.26
83	p-Chloroaniline	0.46	16
84	Chlorobenzene	0.057	6.0
85	Chlorobenzilate	0.10	NA
86	2-Chloro-1, 3-butadiene	0.057	0.28
87	Chlorodibromomethane	0.057	15
88	Chloroethane	0.27	6.0
89	bis (2-chloroethoxy) methane	0.036	7.2
90	bis (2-Chloroethyl) ether	0.033	6.0
91	Chloroform	0.046	6.0
92	bis (2-Chloroisopropyl) ether	0.055	7.2
93	p-Chloro-m-cresol	0.018	14
94	2-Chloroethyl vinyl ether	0.062	NA
95	Chloromethane (Methyl chloride)	0.19	30
96	2-Chloronaphthalene	0.055	5.6
97	2-Chlorophenol	0.044	5.7
98	3-Chloropropylene	0.036	30
99	Chrysene	0.059	3.4
100	o-Cresol	0.11	5.6
101	m-Cresol (difficult to distinguish from p-cresol)	0.77	5.6
102	p-Cresol (difficult to distinguish from m-cresol)	0.77	5.6
103	Cyclohexanone	0.36	0.75 mg/l TCLP
104	1, 2-Dibromo-3-chloropropane	0.11	15
105	Ethylene dibromide (1, 2-Dibromoethane)	0.028	15
106	Dibromomethane	0.11	15
107	2, 4-D (2, 4-Dichlorophenoxyacetic acid)	0.72	10
108	o, p'-DDD	0.023	0.087
109	p,p'-DDD	0.023	0.087
110	o,p'-DDE	0.031	0.087
111	p,p'-DDE	0.031	0.087
112	o,p'-DDT	0.0039	0.087
113	p,p'-DDT	0.0039	0.087
114	Dibenz (a ,h) anthracene	0.055	8.2
115	Dibenz (a, e) pyrene	0.061	NA
116	m-Dichlorobenzene	0.036	6.0
117	o-Dichlorobenzene	0.088	6.0
118	p-dichlorobenzene	0.090	6.0
119	Dichlorodifluoromethane	0.23	7.2
120	1,1-Dichloroethane	0.059	6.0
121	1,2-Dichloroethane	0.21	6.0
122	1,1-Dichloroethylene	0.025	6.0
123	trans-1.2-Dichloroethylene	0.054	30
124	2,4-Dichlorophenol	0.044	14
125	2,6-Dichlorophenol	0.044	14
126	1,2-Dichloropropane	0.85	18
127	cis-1,3-Dichloropropylene	0.036	18
128	trans-1,3-Dichloropropylene	0.036	18
129	Dieldrin	0.017	0.13
130	Diethyl phthalate	0.20	28
131	2-4-Dimethyl phenol	0.036	14
132	Dimethyl phthalate	0.047	28
133	Di-n-butyl phthalate	0.057	28
134	1,4-Dinitrobenzene	0.32	2.3
135	4,6-Dinitro-o-cresol	0.28	160
136	2,4-Dinitrophenol	0.12	160
137	2,4-Dinitrotoluene	0.32	140
138	2,6-Dinitrotoluene	0.55	28
139	Di-n-octyl phthalate	0.017	28
140	p-Dimethylaminoazobenzene	0.13	NA
141	Di-n-propylnitrosamne	0.40	14
142	1,4-Dioxane	NA	170
143	Diphenylamine (difficult to distinguish from diphenylnitrosamine)	0.92	13
144	Diphenylnitrosamine (difficult to distinguish from diphenylamine)	0.92	13
145	1,2-Diphenylhydrazine	0.087	NA
146	Disulfoton	0.017	6.2
147	Endosulfan I	0.023	0.066
148	Endosulfan II	0.029	0.13
149	Endosulfan sulfate	0.029	0.13
150	Endrin	0.0028	0.13
151	Endrin Aldehyde	0.025	0.13
152	Ethyl acetate	0.34	33
153	Ethyl cyanide (Propanenitrile)	0.24	360
154	Ethyl benzene	0.057	10
155	Ethyl ether	0.12	160
156	bis (2-Ethylhexyl) phthalate	0.28	28
157	Ethyl methacrylate	0.14	160
158	Ethylene oxide	0.12	NA
159	Famphur	0.017	15
160	Fluoranthene	0.068	3.4
161	Fluorene	0.059	3.4
162	Heptachlor	0.0012	0.066
163	Heptachlor epoxide	0.016	0.066
164	Hexachlorobenzene	0.055	10
165	Hexachlorobutadiene	0.055	5.6
166	Hexachlorocyclopentadiene	0.057	2.4
167	HxCDDs (All Hexachlorodibenzo-p-dioxins)	0.000063	0.001
168	HxCDFs (All Hexachlorodibenzofurans)	0.000063	0.001
169	Hexachloroethane	0.055	30
170	Hexachloropropylene	0.035	30
171	Indeno (1, 2, 3-c, d) pyrene	0.0055	3.4
172	Iodomethane	0.19	65
173	Isobutyl alcohol	5.6	170
174	Isodrin	0.021	0.066
175	Isosafrole	0.081	2.6
176	Kepone	0.0011	0.13
177	Methacrylonitrile	0.24	84
178	Methanol	5.6	0.75 mg/l TCLP
179	Methapyrilene	0.081	1.5
180	Methoxychlor	0.25	0.18
181	3-Methylcholanthrene	0.0055	15
182	4,4-Methylene bis (2-chloroaniline)	0.50	30
183	Methylene chloride	0.089	30
184	Methyl ethyl ketone	0.28	36
185	Methyl isobutyl ketone	0.14	33
186	Methyl methacrylate	0.14	160
187	Methyl methansulfonate	0.18	NA
188	Methyl parathion	0.014	4.6
189	Naphthalene	0.059	5.6
190	2-Naphthylamine	0.52	NA
191	o-Nitroaniline	0.27	14
192	p-Nitroaniline	0.028	28
193	Nitrobenzene	0.068	14
194	5-Nitro-o-toluidine	0.32	28
195	o-Nitrophenol	0.028	13
196	p-Nitrophenol	0.12	29
197	N-Nitrosodiethylamine	0.40	28
198	N-Nitrosodimethylamine	0.40	2.3
199	N-Nitroso-di-n-butylamine	0.40	17
200	N-Nitrosomethylethylamine	0.40	2.3
201	N-Nitrosomorpholine	0.40	2.3
202	N-Nitrosopiperidine	0.013	35
203	N-Nitrosopyrrolidine	0.013	35
204	Parathion	0.014	4.6
205	Total PCBs (sum of all PCB isomers, or all Aroclors)	0.10	10
206	Pentachlorobenzene	0.055	10
207	PeCDDs (All Pentachlorodibenzo-p-dioxins)	0.000063	0.001
208	PeCDFs (All Pentachlorodibenzofurans)	0.000035	0.001
209	Pentachloroethane	0.055	6.0
210	Pentachloronitrobenzene	0.055	4.8
211	Pentachlorophenol	0.089	7.4
212	Phenacetin	0.081	16
213	Phenanthrene	0.059	5.6
214	Phenol	0.039	6.2
215	Phorate	0.021	4.6
216	Phthalic acid	0.055	28
217	Phthalic anhydride	0.055	28
218	Pronamide	0.093	1.5
219	Pyrene	0.067	8.2
220	Pyridine	0.014	16
221	Safrole	0.081	22
222	Silvex (2,4,5-TP)	0.72	7.9
223	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	0.72	7.9
224	1,2,4,5-Tetrachlorobenzene	0.055	14
225	TCDDs (All Tetrachlorodibenzo-p-dioxins)	.000063	.001
226	TCDFs (All Tetrachlorodibenzofurans)	.000063	.001
227	1,1,1,2-Tetrachloroethane	0.057	6.0
228	1,1,2,2-Tetrachloroethane	0.057	6.0
229	Tetrachloroethylene	0.056	6.0
230	2,3,4,6-Tetrachlorophenol	0.030	7.4
231	Toluene	0.080	10
232	Toxaphene	0.0095	2.6
233	Bromoform (Tribromomethane)	0.63	15
234	1,2,4-Trichlorobenzene	0.055	19
235	1,1,1-Trichloroethane	0.054	6.0
236	1,1,2-Trichloroethane	0.054	6.0
237	Trichloroethylene	0.054	6.0
238	Trichloromonofluoromethane	0.020	30
239	2,4,5-Trichlorophenol	0.18	7.4
240	2,4,6-Trichlorophenol	0.035	7.4
241	1,2,3-Trichloropropane	0.85	30
242	1,1,2-Trichloro-1,2,2-trifluoroethane	0.057	30
243	tris-(2,3-Dibrumopropyl) phosphate	0.11	0.10
244	Vinyl chloride	0.27	6.0
245	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	0.32	30
246	Antimony	1.9	2.1 mg/l TCLP
247	Arsenic	1.4	5.0 mg/l TCLP
248	Barium	1.2	7.6 mg/l TCLP
249	Beryllium	.082	0.014 mg/l TCLP
250	Cadmium	0.69	0.19 mg/l TCLP
251	Chromium (Total)	2.77	0.86 mg/l TCLP
252	Cyanides (Total) /4/	1.2	590
253	Cyanides (Amenable) /4/	0.86	30
254	Fluoride	35	NA
255	Lead	0.69	0.37 mg/l TCLP
256	Mercury — Nonwastewater from Retort	NA	0.20 mg/l TCLP
257	Mercury — All others	0.15	0.025 mg/l TCLP
258	Nickel	3.98	5.0 mg/l TCLP
259	Selenium	0.82	0.16 mg/l TCLP
260	Silver	0.43	0.30 mg/l TCLP
261	Sulfide	14	NA
262	Thallium	1.4	0.078 mg/l TCLP
263	Vanadium	4.3	0.23 mg/l TCLP
264	Zinc/5/	2.61	5.3 mg/l TCLP

/2/ Concentration standards for wastewaters are expressed in mg/l are based on analysis of composite samples.

/3/ Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40 (d). All concentration standards for nonwastewaters are based on analysis of grab samples.

/4/ Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846m as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

/5/ Zinc is not an "underlying hazardous constituent" in characteristic wastes, according to the definition at 268.2(i).

Note: NA means not applicable.

Koppers018436

SWDN

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No. ORD027734359 Manifest Document No. 11524

22. Page 2 of

Information in the shaded areas is not required by Federal law.

23. Generator's Name and Mailing Address
KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS ROAD
PORTLAND, OR 97210

L. State Manifest Document Number

M. State Generator's ID

24. Transporter Company Name: SAFETY-KLEEN (TG), INC. 25. US EPA ID Number: SCD987574647

N. State Transporter's ID

O. Transporter's Phone (253)288-2800

26. Transporter Company Name: SAFETY-KLEEN (DELTA, BC) 27. US EPA ID Number: BCT270019304

P. State Transporter's ID

Q. Transporter's Phone (604)940-0094

	28. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29. Containers No.	29. Containers Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							

S. Additional Descriptions for Materials Listed Above

A: E:
B: F:
C: G:
D: H:

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

Profile Number

TRANSPORTER

33. Transporter Acknowledgement of Receipt of Materials — Date

Printed/Typed Name | Signature | Month Day Year

34. Transporter Acknowledgement of Receipt of Materials — Date

Printed/Typed Name | Signature | Month Day Year

FACILITY

35. Discrepancy Indication Space

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

GENERATOR COPY

90289 (continuation) 6

Koppers018437

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) SWO# 3600

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. / Manifest Document No.: 0 R 0 0 2 7 7 8 4 8 5 9 4 4 5 2 4

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS R
PORTLAND, OR 97210

4. Generator's Phone (503) 286-3601

A. State Manifest Document Number: 1011524

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.

6. US EPA ID Number: 0 0 0 0 0 7 5 7 4 0 4 7

C. State Transporter's ID

D. Transporter's Phone: (253) 280-2800

7. Transporter 2 Company Name: MP ENVIRONMENTAL

8. US EPA ID Number: 0 0 7 0 0 0 2 4 2 4 7

E. State Transporter's ID

F. Transporter's Phone: (805) 393-1151

9. Designated Facility Name and Site Address:
SAFETY-KLEEN LTD. (DELTA)
7842 PROGRESS WAY
DELTA, BC V4G 1A4

10. US EPA ID Number: 0 0 0 0 0 0

G. State Facility's ID

H. Facility's Phone: (604) 940-0894

GENERATOR

	HM	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	WASTE Paint, (OIL PAINT), 3, UN1263, PG-II	001	CF n.m	01200	P	D001
b.		NON RCRA / NON DOT REGULATED WASTE (TAR)	002	n.m	00600	P	
c.							
d.							

J. Additional Descriptions for Materials Listed Above
A: 990422-12-KO-001, 1 X Sayford Box, (ERG # 127)
B: 990422-12-KO-003-002, 2 X 55g DM
C:
D:

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Profile Number: a. 3013010-12-KO d.
b. 3013011-12-KO
c.

SWO# 3600
Emergency Contact:
1-800-451-8346
3E

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] | Signature: [illegible] | Month Day Year: 04 22 97

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] | Signature: [illegible] | Month Day Year: 04 22 97

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Month Day Year

Style CF 17 LABELMASTER, AN AMERICAN LABELMARK CO., CHICAGO, IL 60646 (800)621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

FILE COPY OR STATE COPY

PRINTED ON RECYCLED PAPER USING SOYBEAN INK — PRINTED WITH SOY INK

Koppers018438

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

safety-kleen®

MAY 20, 1999

Environmental Manager
KOPPERS INDUSTRIES INC
7540 NW ST HELENS ROAD
PORTLAND, OREGON 97210

RE: Certificates of Disposal

Dear Environmental Manager:

Enclosed please find your Certificate(s) of Disposal and accompanying detailed report(s) for the waste that was shipped to our facility for treatment. Your original manifest number is referenced on both of these documents along with a Safety-Kleen Aragonite document number.

Your waste has been properly treated and the residue from this waste has been disposed of at an approved and permitted hazardous waste landfill.

Safety-Kleen appreciates you as a valued customer. If you should have any questions or concerns please do not hesitate to contact one of our customer/facility representatives at (801) 323-8100.

Sincerely,

James J. Jerozal Jr.
Facility Sales Manager

Enclosures

RECEIVED
MAY 27 1999
KOPPERS INDS, INC.
PORTLAND OR

SAFETY-KLEEN (ARAGONITE), INC.
P.O. BOX 22890 SALT LAKE CITY, UT 84122-0890 801.323.8100 MAIN NO. 801.323.8884 FAX NO.

MAY 20, 1999

KOPPERS INDUSTRIES INC
7540 NW ST HELENS ROAD
PORTLAND, OREGON 97210

EPA ID: ORD 027 734 359

Certificate of Disposal

No. 112500

Customer Manifest: 11526 Document: I2953 destroyed as of MAY 20, 1999

This is to certify that the hazardous material manifested to Safety-Kleen on the above Safety-Kleen Aragonite Document Number was disposed of by incineration in accordance with 40 CFR 761 (and 40 CFR 264 if applicable) as of the above certification date.

Attached is a detailed report which identifies the date(s) of disposal. Residue from this waste has been disposed of at an approved and permitted Hazardous Waste Landfill.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Safety-Kleen, Aragonite UT
EPA ID # UTD 981 552 177

James J. Jerozal Jr.
Facility Sales Manager

Generator: 704090 KOPPERS INDUSTRIES INC

CD #	Document #	Item	State #	Customer #	Types	Weight	Received	Destroyed	Drum Srl Num
112500	I2953	1	OR1011526	11526	DF	115	05/12/1999	05/20/1999	990422-12-KO-00
112500	I2953	2	OR1011526	11526	DF	132	05/12/1999	05/20/1999	990422-12-KO-00
112500	I2953	3	OR1011526	11526	DF	136	05/12/1999	05/20/1999	990422-12-KO-00
112500	I2953	4	OR1011526	11526	DF	123	05/12/1999	05/20/1999	990422-12-KO-00
112500	I2953	5	OR1011526	11526	DF	132	05/12/1999	05/20/1999	990422-12-KO-00

SWO#

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD027734359
Manifest Document No.: 99901

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS ROAD
PORTLAND, OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 10099901

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.

6. US EPA ID Number: SCD987574647

C. State Transporter's ID:

D. Transporter's Phone: (253)288-2800

7. Transporter 2 Company Name: SAFETY KLEEN (TG)

8. US EPA ID Number: SCD987574647

E. State Transporter's ID:

F. Transporter's Phone: 253 288 2800

9. Designated Facility Name and Site Address
SAFETY-KLEEN LTD. (DELTA)
7842 PROGRESS WAY
DELTA, BC V4G 1A4

10. US EPA ID Number: PS8388

G. State Facility's ID:

H. Facility's Phone: (604) 940-0894

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	5	X	WASTE Corrosive liquid, basic, inorganic, n.o.s., (Contains Potassium hydroxide), 8, UN3266, PG-II	001	DF	00300	P	D002
			~~002~~	~~DM~~	~~00600~~		
b.	6	X	WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, n.o.s., UN3264, PG II 8 (MURIATIC ACID, HYDROFLUORIC ACID)	001	DF	00300	P	D002
c.							
d.							

J. Additional Descriptions for Materials Listed Above
A: 990901-001-~~002~~, ~~1x 30gPD~~, 1x85g PD (OVER PACK) (ERG# 154)
B: 990901-002, 1X 30g PD (ERG# 126)
C:
D:

K. Handling Codes for Wastes Listed Above
Sept 13 '99 P.O.E
Rich Threwe Blaine
Rich Threwe Wash
A: 103691 B: 103692

15. Special Handling Instructions and Additional Information
Profile Number a. 2201935 b. 2201936 c. d.
SWO#
Emergency Contact: 1-800-451-8346 3E
POINT OF DEPARTURE: BLAINE, WA

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
and conforms to the terms of the attached EPA Acknowledgment of Consent.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [signature] Signature: [signature] Date: Month 09 Day 02 Year 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Michael D. Rabinowitz Signature: Michael D. Rabinowitz Date: Month 09 Day 02 Year 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: John W. Wallace Signature: John W. Wallace Date: Month 9 Day 9 Year 99

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: WAYNE MA. Signature: [signature] Month 9 Day 24 Year 99

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90290

6

ORIGINAL-RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262.20.

Koppers018443

RECEIVED

OCT 1 5 1999

KOPPERS INDS, INC.
PORTLAND OR

SWO#

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD027734359
Manifest Document No.: 99901

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS ROAD
PORTLAND, OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 10099901

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.

6. US EPA ID Number: SCD987574647

C. State Transporter's ID:

D. Transporter's Phone: (253)288-2800

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address: SAFETY-KLEEN LTD. (DELTA)
7842 PROGRESS WAY
DELTA, BC V4G 1A4

10. US EPA ID Number: PS8388

G. State Facility's ID:

H. Facility's Phone: (604) 940-0894

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)

	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	WASTE Corrosive liquid, basic, inorganic, n.o.s., (Contains Potassium hydroxide), 8, UN3266, PG-II	002	DF ~~DN~~	00600	P	D002
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above: 1x85 cy PD (OVER PACK)
A: 990901-001-002, 2x 30 yd PD, (ERS# 154)
B:
C:
D:

K. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information
Profile Number a. 2201935 b. c. d.
SWO#
Emergency Contact: 1-800-451-8346 3E
POINT OF DEPARTURE: BLAINE, WA

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. and conforms to the terms of the attached EPA Acknowledgment of Consent.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [signature] Signature: [signature] Date: Month 09 Day 02 Year 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Michael D. Rabinowitz Signature: Michael D. Rabinowitz Date: Month 09 Day 02 Year 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Signature: Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: Signature: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90290

6

GENERATOR COPY

Koppers018445

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262.20.

safety-kleen.

LDR NOTIFICATION FORM

Generator Name *Koppers Industries* **Manifest No.** *99901*

Pursuant to 40 CFR §268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268 Land Disposal Restrictions (LDR).

A. GENERAL WASTE NOTIFICATION

Form Line No.	SK Profile No.	EPA Waste Codes & LDR Subcategories (if any) *List codes or use Attachment 1*	NWW	WW	Waste Constituent Notification *Check the "None" box or List Legend Constituent # or use Attachment 2*
1	*221935*	*D002* ☐ Check if Attachment 1 has been used	☒	☐	☐ None ☐ Check if Attachment 2 has been used
2		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
3		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
4		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
5		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
6		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used

B. HAZARDOUS DEBRIS NOTIFICATION

☐ This hazardous debris, as identified above on Line No(s). _____ is subject to the alternative treatment standards of 40 CFR §268.45.

The waste contains the following contaminants subject to treatment (check all that apply):

☐ Toxicity characteristic debris ☐ Debris contaminated with listed waste ☐ Cyanide reactive debris

C. CONTAMINATED SOIL NOTIFICATION & CERTIFICATION

☐ This contaminated soil, as identified above on Line No(s). _____ is subject to the alternative treatment standards of 40 CFR §268.49(c).

Complete the following: "I certify under penalty of law that I personally have examined this contaminated soil & it [☐does/ ☐does not] contain listed hazardous waste & [☐does / ☐does not] exhibit a characteristic of hazardous waste & [☐is subject to / ☐complies with] soil treatment standards as provided by §268.49(c) or the universal treatment standards". *Note: Constituents subject to treatment are any constituents listed in 40 CFR §268.48 Universal Treatment Standards that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium & zinc, & are present at concentrations greater than ten times the universal treatment standard.*

D. LAB PACK (INCINERATION) NOTIFICATION & CERTIFICATION

☐ This lab pack, as identified above on Line No(s). _____ is subject to the alternative treatment standards of 40 CFR §268.42(c).

"I certify under penalty of law that I personally have examined & am familiar with the waste & that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR Part 268 & that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR §268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment".

E. EXTENSIONS & VARIANCES

☐ This waste, as identified above on Line No(s). _____ is not prohibited from land disposal & is subject to a deadline extension or variance, e.g., treatability variance, case-by-case extension. *Describe below any extension or variance that applies to this waste & include applicable dates:*

_____ _____ ____ / ____ / ____

Generator's Authorized Signature | Name & Title (Printed or Typed) | Date

DWALKER.LDR.NOTIFICATION.11.23.98

SAFETY-KLEEN SYSTEMS
16540 SE 130TH AVE.
CLACKAMAS, OR 97015

Phone: 503/655-5798
Fax: 503/655-3952

Company Name:	Koppers Industries	From:	Mike Rabinowitz
Attention:	T.J.	Date:	9-3-99
Fax Number:	285-2831		
Phone Number:	286-3681		

Total pages, including cover sheet: 3

COMMENTS:
T.J.
Here is the amended manifest.
Call me if you have any questions.
Thanks,
Mike

SWO#

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD082773459 | Manifest Document No.: 99901

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS ROAD
PORTLAND, OR 97210

4. Generator's Phone: 503 286-3681

A. State Manifest Document Number: 10099901

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN (TB), INC. | 6. US EPA ID Number: BCD987574647 | C. State Transporter's ID: | D. Transporter's Phone: (253)288-2800

7. Transporter 2 Company Name: | 8. US EPA ID Number: | E. State Transporter's ID: | F. Transporter's Phone:

9. Designated Facility Name and Site Address: SAFETY-KLEEN LTD. (DELTA)
7842 PROGRESS WAY
DELTA, BC V4G 1A4 | 10. US EPA ID Number: PS8388 | G. State Facility's ID: | H. Facility's Phone: (604) 940-8894

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE Corrosive liquid, basic, inorganic, n.o.s., (Contains Potassium hydroxide), 8, UN3266, PG-II	X	001	DF	00300	P	D002
b. WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., UN3264, PG II (MURIATIC ACID, HYDROFLUORIC ACID)	X	001	DF	00300	P	D002
c.						
d.						

J. Additional Descriptions for Materials Listed Above
A: 990901-001, 1x85g PD (OVER PACK) (ERG# 154)
B: 990901-002, 1X 30g PD (ERG# 126)
C:
D:

K. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information
Profile Number a. 2201935 b. 2201936 d.
SWO#
Emergency Contact: 1-800-451-8346
3E
POINT OF DEPARTURE: BLAINE, WA

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations,
and conforms to the terms of the attached EPA Acknowledgment of Consent.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Date (Month Day Year)
D Turner		09 02 99

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Michael D. Rabinowitz	Michael D. Rabinowitz	09 02 99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Date (Month Day Year)

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90290

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262.20.

GENERATOR

Koppers018448

LDR NOTIFICATION FORM

Generator Name *Koppers Industries* **Manifest No.** *99901*

Pursuant to 40 CFR §268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268 Land Disposal Restrictions (LDR).

A. GENERAL WASTE NOTIFICATION

Form Line No.	SK Profile No.	EPA Waste Codes & LDR Subcategories (if any) *List codes or use Attachment 1*	NWW	WW	Waste Constituent Notification *Check the "None" box or List Legend Constituent # or use Attachment 2*
1	*221935*	*D002* ☐ Check if Attachment 1 has been used	☒	☐	☐ None ☐ Check if Attachment 2 has been used
2	221936	D002 ☐ Check if Attachment 1 has been used	☒	☐	☐ None ☐ Check if Attachment 2 has been used
3		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
4		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
5		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
6		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used

B. HAZARDOUS DEBRIS NOTIFICATION

☐ This hazardous debris, as identified above on Line No(s). _____ is subject to the alternative treatment standards of 40 CFR §268.45.

The waste contains the following contaminants subject to treatment (check all that apply):

☐ Toxicity characteristic debris ☐ Debris contaminated with listed waste ☐ Cyanide reactive debris

C. CONTAMINATED SOIL NOTIFICATION & CERTIFICATION

☐ This contaminated soil, as identified above on Line No(s). _____ is subject to the alternative treatment standards of 40 CFR §268.49(c).

Complete the following: "I certify under penalty of law that I personally have examined this contaminated soil & it [☐does/ ☐does not] contain listed hazardous waste & [☐does / ☐does not] exhibit a characteristic of hazardous waste & [☐is subject to / ☐complies with] soil treatment standards as provided by §268.49(c) or the universal treatment standards". *Note: Constituents subject to treatment are any constituents listed in 40 CFR §268.48 Universal Treatment Standards that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium & zinc, & are present at concentrations greater than ten times the universal treatment standard.*

D. LAB PACK (INCINERATION) NOTIFICATION & CERTIFICATION

☐ This lab pack, as identified above on Line No(s). _____ is subject to the alternative treatment standards of 40 CFR §268.42(c).

"I certify under penalty of law that I personally have examined & am familiar with the waste & that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR Part 268 & that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR §268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment".

E. EXTENSIONS & VARIANCES

☐ This waste, as identified above on Line No(s). _____ is not prohibited from land disposal & is subject to a deadline extension or variance, e.g., treatability variance, case-by-case extension. *Describe below any extension or variance that applies to this waste & include applicable dates:*

T.J. Tucker Gen Foreman 9 / 2 / 99

Generator's Authorized Signature | Name & Title (Printed or Typed) | Date

DWALKER LDR NOTIFICATION 11.23.98

** TOTAL PAGE.03 **

7 751-01

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD027734359
Manifest Document No.: 67387
2. Page 1 of 2
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
KOPPERS INDUSTRIES INC
7540 NW ST HELENS ROAD
PORTLAND OR 97210
4. Generator's Phone (503) 286-3681

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.
6. US EPA ID Number: SCR000074591
C. State Transporter's ID
D. Transporter's Phone: 503 655-5798

7. Transporter 2 Company Name: M P ENVIRONMENTAL SVCS IN
8. US EPA ID Number: CAT000624247
E. State Transporter's ID
F. Transporter's Phone: 661 393-1151

9. Designated Facility Name and Site Address: 050159
SAFETY-KLEEN LTD (SERVICE
7842 PROGRESS WAY
DELTA BC V4G 1A4
10. US EPA ID Number: PS8388
G. State Facility's ID
H. Facility's Phone: 604 940-0894

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. 3	X	TOXIC LIQUIDS, ORGANIC, N.O.S. (QUINOLINE) 6.1 UN2810 PGIII (ERG#153)	1	DM	400	P	NONE
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
PROFILE: 2350850
A: 010216-001 1 X 55G DM

K. Handling Codes for Wastes Listed Above
Point of Entry Blaine WA
Mike Gaudin
Mike Gaudin
03/02/01

15. Special Handling Instructions and Additional Information
MFST R/T#100295543 0009-4699-17
EMERGENCY RESP 800-468-1760(24 HR). IF UNDELIVERABLE RETURN TO GENERATOR.
SEE ATTACHMENT
SKDOT# A: 161778 B: C: D:

Point of Departure: BLAINE, WA

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
AND CONFORMS TO THE TERMS OF THE ATTACHED EPA ACKNOWLEDGMENT OF CONSENT.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: X [signature] Signature: X [signature] Date: Month 02 Day 15 Year 01

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Kenneth Kurtz Signature: Kenneth Kurtz Date: Month 02 Day 15 Year 01

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: JACK Houston Signature: Jack Houston Date: Month 02 Day 23 Year 01

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: L TAYNOR Signature: L Taynor Month 03 Day 06 Year 01

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

ORIGINAL-RETURN TO GENERATOR

90290 (Rev 11/98) 6

Public reporting burden for this collection of information is estimated to average 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262.20.

Koppers018450

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.: ORD 027734359 | Manifest Document No.: 67387

22. Page 2 of 2 | Information in the shaded areas is not required by Federal law.

23. Generator's Name and Mailing Address: Koppers Industries

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 3 Company Name: Safety Kleen (TG) Inc.

25. US EPA ID Number: SCR000074591

N. State Transporter's ID

O. Transporter's Phone: 253-288-2800

26. Transporter 4 Company Name: Safety Kleen LTD (DELTA)

27. US EPA ID Number: MIT 270019904

P. State Transporter's ID

Q. Transporter's Phone: 604940-0894

28. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information: FOR TRANSPORT ONLY

33. Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name: WL Scott FOR SK (TG) INC | Signature: [signature] | Date: Month 02 Day 23 Year 01

34. Transporter 4 Acknowledgement of Receipt of Materials

Printed/Typed Name: Mike Gaudreau | Signature: Mike Gaudreau | Date: Month 3 Day 02 Year 01

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90289 (continuation) 6

ORIGINAL-RETURN TO GENERATOR

Koppers018451

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

RECEIVED
MAR 2 2 2001
KOPPERS INDS, INC.
PORTLAND OR

7-751-01

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

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Manifest Document No.: 67387
2. Page 1 of 2
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KOPPERS INDUSTRIES INC
7540 NW ST HELENS ROAD
PORTLAND OR 97210
4. Generator's Phone (503) 286-3681

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.
6. US EPA ID Number: SCR000074591
C. State Transporter's ID
D. Transporter's Phone: 503 655-5798

7. Transporter 2 Company Name: M P ENVIRONMENTAL SVCS IN
8. US EPA ID Number: CAT000624247
E. State Transporter's ID
F. Transporter's Phone: 661 393-1151

9. Designated Facility Name and Site Address 050159
SAFETY-KLEEN LTD (SERVICE
7842 PROGRESS WAY
DELTA BC V4G 1A4
10. US EPA ID Number: PS8388
G. State Facility's ID
H. Facility's Phone: 604 940-0894

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. TOXIC LIQUIDS, ORGANIC, N.O.S. (QUINOLINE) 6.1 UN2810 PGIII (ERG#153)		1	DM	400	P	NONE
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
PROFILE: 2350850
A: 010216-001 1 X 55G DM

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
MFST R/T#100295543 0009-4699-17
EMERGENCY RESP 800-468-1760(24 HR). IF UNDELIVERABLE RETURN TO GENERATOR.
SEE ATTACHMENT
SKDOT# A: 161778 B: C: D:

Point of Departure: BLAINE, WA

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
ACCEPTANCE TO THE TERMS OF THE ATTACHED CONFIRMATION OF CONSENT.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Date (Month Day Year)
[illegible]	[signature]	02 15 01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Kenneth Kurtz	Kenneth Kurtz	02 15 01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Date (Month Day Year)

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

GENERATOR COPY

90290 (Rev 11/98) 6

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INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262.20.

Koppers018453

SK REFERENCE NO.
2350850

safety-kleen.

MATERIAL PROFILE

Safety-Kleen (SK) Use Only	If applicable, Intercompany Billing Facility #	Customer Number:	SK Line Of Business #:	Facility Profile #:

A. GENERATOR INFORMATION

☒ *Check if Billing Information is same as Generator Information*

Generator Name: Koppers Industries Inc.
Facility Address (No P.O. Box): 7540 NW St. Helens Rd.
City/State/Zip: Portland, OR 97210
Technical Contact: T.J. Turner
Phone: 503-286-3681 Fax: 503-285-2831
Generator Location *(If different from Facility Address)*:
SIC Code: ____ ☐ CESQG ☐ SQG US EPA ID # ORD027734359 State Generating ID #:

Billing Company:
Billing Address:
City/State/Zip:
Billing Contact:
Phone: Fax:

B. SHIPPING INFORMATION

☐ *DOT Assistance Requested* ☐ *Check if SK Transportation Services are requested*

US DOT Proper Shipping Name: TOXIC LIQUIDS, ORGANIC, N.O.S.
Hazard Class / Division # 6.1 ID # (UN/NA) 2810 Packing Group (PG) III RQ 5000

Non-Bulk Shipping Containers

Size		Steel	Poly	Fiber	Quantity	Frequency
55	Gal	☒	☐	☐	1	1 TIME
____	Gal	☐	☐	☐		
____	Gal	☐	☐	☐		
____	Gal	☐	☐	☐		

Bulk Shipping Containers

Container Type	Quantity & Size	Frequency
☐ Yd.³ Box *or* ☐ Super Sack		
☐ Hard Top *or* ☐ Tarped Bin		
☐ End Dump (Tarped) Trailer		
☐ Tank *or* ☐ Vacuum Trailer		

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Material: Quinoline
Process Generating The Material: Plant Cleanout
Odor: ☐ None ☐ Mild ☒ Strong; Describe: Hydrocarbon

Yes	No		Yes	No	
☐	☐	Regulated or Licensed Radioactive Waste	☐	☐	Meets LDR Standards or ☐ Partially Meets (For Landfill Only)
☐	☐	Regulated Medical / Infectious Waste	☐	☐	Commingled Waste (Two or more hazardous wastes mixed as one)
☐	☐	Waste Subject To Benzene NESHAP Regulations	☐	☐	Sorbent Added; If Yes, is sorbent biodegradable? ☐ Yes ☐ No
☐	☐	TSCA Regulated PCB Waste *(List any PCB level in Sec.D)*	☐	☐	Exempt Waste; If Yes, list reference 40 CFR ____
☐	☐	Regulated Subpart CC Waste (VOs ≥ 500 ppm)	☐	☐	State Hazardous Waste; State Code ____
☐	☐	Regulated Ozone Depleting Substance	☐	☐	EPA Hazardous Waste
☐	☐	CERCLA Regulated (Superfund) Waste			
☐	☐	Hazardous Debris (Subject to alternative LDR treatment standards)			
☐	☐	Waste Contains UHCs/Constituents of Concern			
		If Yes, list in ☐ Sec. D *or* ☐ Constituent Addendum			

EPA Waste Codes (including any LDR subcategories, e.g., D003 Water Reactive): NONE

EPA Haz Waste Only Origin Code: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 Source Code: A ____ Form Code: B ____ System Code: M ____

D. MATERIAL COMPOSITION

1. Chemical / Physical Constituents: List all detectable components by chemical name, including physical material, e.g., sorbent, debris.

Chemical Constituents & Composition	ppm	☐ wt % ☒ vol %	Chemical Constituents & Composition	ppm	☐ wt % ☐ vol %
Quinoline		96%			
Petroleum Hydrocarbons		4%			

Section. D continues on the next page for Elemental Constituents ☛

Range Total ≥ 100%

GENERATOR

Koppers018454

SK REFERENCE NO.

2350850

Note: Completion of Sections D.2 & F is optional for: ☐ Analytical Profile (representative sample submitted; test results used to complete D.2 & F)

Completion of Sections D.2, E & F is optional for: ☐ Standard Industry Profile (Safety-Kleen Corp. historical data utilized to complete D.2, E, & F)

D. MATERIAL COMPOSITION *(Continued)*

2. Elemental Constituents ☒ *Check if this waste contains No Detectable Elements / Metals, unless listed below.*

Check either; ☐ Total Analysis *or* ☐ TCLP Method *or* ☐ Generator Knowledge, then enter data below.

Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm
Aluminum		Cadmium		Fluorine		Nickel		Sodium	
Antimony		Chlorine		Lead		Phosphorous		Sulfur	
Arsenic		Chromium		Lithium		Potassium		Thallium	
Barium		Cobalt		Manganese		Selenium		Titanium	
Beryllium		Copper		Mercury		Silicon		Vanadium	
Bromine		Iodine		Molybdenum		Silver		Zinc	

E. REACTIVE CHARACTERISTICS

☒ *Check if this waste exhibits No Reactive Characteristics*

Yes	No		Yes	No		Yes	No	
☐	☐	Explosive	☐	☐	Oxidizer	☐	☐	Reactive Cyanide _____ ppm
☐	☐	Shock Sensitive	☐	☐	Water Reactive	☐	☐	Reactive Sulfide _____ ppm
☐	☐	Pyrophoric	☐	☐	Air Reactive	☐	☐	Polymerizable
☐	☐	Other Incompatibles; Describe _____						

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70° F.

# of Phases: 1	Color: yellow	Flash Point: _____ °F (if < 73 °F)	pH ☐ Liquids > 20% H_2O *or* pH ☐ Non-Aqueous
Liquid %: 100	Specific Gravity: 1.0850	☐ 73 - <100°F ☐ 100 - 141°F	☐ ≤ 2 pH ☐ > 2 - 4 pH ☒ > 4 - 10 pH
Sludge %:	Viscosity cps: 200-2000	☐ 142°F - <200° F ☒ ≥200° F	☐ > 10 - < 12.5 pH ☐ ≥ 12.5 pH
Solid %:	Density: > 8	Boiling Point (if < 130°F):	BTU's / lb. or Range:
Powder %:	☒ lbs./ gal. ☐ lbs./ cu. ft.	Ash % (Bridgeport Only):	
Gas %:	Comments:		

G. GENERATOR PROFILE CERTIFICATION

I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator that the information supplied on this form and on any attachments or supplements hereto is complete and accurate, and that all known or suspected hazards of the material(s) described herein have been disclosed. I agree that if the sample test results indicate a discrepancy with any information supplied on this form, that either Safety-Kleen or the generator may initiate further testing and evaluation in accordance with the terms and conditions of the contract between Safety-Kleen and the generator and that this profile certification may be amended accordingly.

Generator's Authorized Signature | T. J. Turner Gen Foreman | Name & Title (Printed or Typed) | 02 / 15 / 01 | Date

Comments _____

Safety-Kleen Use Only ☐ SKOS ☐ SKVS ☐ Non-haz Evaluation ☐ Standard Industry Profile: SIP Index # _____

SK Sales Rep. Name _____ Rep.# _____ Territory/Branch # _____

Process Approval # _____ Product Code or Part # _____ TRI Flowpath # _____ Pricing _____

Waste Approval & Certification

I certify acceptability of this waste stream and that all appropriate permits have been obtained, as indicated by Safety-Kleen's facility approval below:

Safety-Kleen's Authorized Facility Signature | Name & Title (Printed or Typed) | ___ / ___ / ___ Date

© 1999.All Rights Reserved.Safety-Kleen Corp.

GENERATOR

Koppers018455

February 13, 2001

Koppers Industries, Inc.
Mr. TJ Turner
7540 NW St. Helens Rd.
Portland, OR 97210
FAX: 503-285-2831

RE: Estimate for transportation and disposal of quinoline drum.

Dear TJ:

Safety-Kleen is pleased to provide you with the following pricing for management and disposal of waste materials listed below.

Assumptions: Materials are as represented on the profiles. Containers are sound and DOT legal for transport. Sufficient information can be obtained from labels, MSDSs, inventories and field analysis to allow waste to be profiled and shipped for management.

Pricing is contingent upon the review of a Safety-Kleen Waste Data Form and receipt of a representative sample of the material, if required, prior to acceptance. Any operational or regulatory factors that affect the management of this waste may affect pricing.

Safety-Kleen is pleased to be of service to you and looks forward to working with you in the near future. If you have any questions or wish to arrange for service please call me at 503-650-6098. Please note that a waste profile will need to be completed and approved before we can provide the services discussed.

Waste Description	Treatment Method	Pricing
Quinoline	Fuel Blending at Safety-Kleen Delta, BC	$120/ 55G drum estimate 1 X 55
Transportation to BC	N/A	Included in above
Waste Profiling	N/A	No charge

Total estimate $120
This pricing is valid for 60 days.
Sincerely:

Michael D. Rabinowitz
Customer service Chemist

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

November 30, 2000

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

EPA Notice No.: 684/00

MR. DAVID AUBRY
SAFETY-KLEEN (ENCOTEC), INC.
117 FRONTAGE ROAD NORTH
PACIFIC, WA 98047
EPA I.D. No.: WAH000008847

Dear MR. AUBRY:

This is to acknowledge receipt of your notice, dated October 11, 2000, of intent to export hazardous waste to Canada as required by Title 40, Code of Federal Regulations, Part 262, Subpart E, Section 262.53 promulgated pursuant to the Resource Conservation and Recovery Act (RCRA). In accordance with the U.S.-Canada Bilateral Agreement on the Transboundary Movement of Hazardous Waste, the U.S. Environmental Protection Agency (EPA) forwarded your notice to the Government of Canada and Canada has no objection to your shipment(s) of hazardous waste.

This letter constitutes the EPA Acknowledgment of Consent for the export of the following hazardous wastes as specified in your notice:

Waste Stream No.: 1
Waste Description: WASTE EXTINGUISHING MATERIAL. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE FIRE EXTINGUISHERS/COMPRESSED GAS; DOT Hazard Class: 2.2; DOT I.D. No.: UN1044. Total Volume to be Exported: 100,000 KILOGRAMS. Estimated Frequency: 12 loads per YEAR.

Waste Stream No.: 2
Waste Description: FREON. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE REFRIGERANT GASES, NOS; DOT Hazard Class: 2.2; DOT I.D. No.: UN1078. Total Volume to be Exported: 100,000 KILOGRAMS. Estimated Frequency: 12 loads per YEAR.

Koppers018457

Waste Stream No.: 3
Waste Description: PAINT. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE PAINT; DOT Hazard Class: 3; DOT I.D. No.: UN1263. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 4
Waste Description: FLAMMABLE SOLIDS. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE FLAMMABLE SOLIDS, ORGANIC, NOS; DOT Hazard Class: 4.1; DOT I.D. No.: UN1325. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 5
Waste Description: ACTIVATED CARBON. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE CARBON, ACTIVATED; DOT Hazard Class: 4.2; DOT I.D. No.: UN1362. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 12 loads per YEAR.

Waste Stream No.: 6
Waste Description: OXIDIZING SOLIDS. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE OXIDIZING SOLID, NOS; DOT Hazard Class: 5.1; DOT I.D. No.: UN1479. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 7
Waste Description: CORROSIVE SOLIDS. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE CORROSIVE SOLIDS, NOS; DOT Hazard Class: 8; DOT I.D. No.: UN1759. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 8
Waste Description: AEROSOLS, FLAMMABLE. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE AEROSOLS, FLAMMABLE; DOT Hazard Class: 2.1; DOT I.D. No.: UN1950. Total Volume to be Exported: 1,000,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 9
Waste Description: AEROSOLS, NONFLAMMABLE. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE AEROSOLS; DOT Hazard Class: 2.2; DOT I.D. No.: UN1950. Total Volume to be Exported: 1,000,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Koppers018458

Waste Stream No.: 10
Waste Description: WASTE PROPANE, BUTANE, ACETYLENE. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE COMPRESSED GASES, FLAMMABLE, NOS; DOT Hazard Class: 2.1; DOT I.D. No.: UN1954. Total Volume to be Exported: 100,000 KILOGRAMS. Estimated Frequency: 12 loads per YEAR.

Waste Stream No.: 11
Waste Description: FLAMMABLE LIQUIDS, POISONOUS. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE FLAMMABLE LIQUIDS, TOXIC, NOS; DOT Hazard Class: 3; DOT I.D. No.: UN1992. Total Volume to be Exported: 500,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 12
Waste Description: FLAMMABLE LIQUIDS. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE FLAMMABLE LIQUIDS, NOS; DOT Hazard Class: 3; DOT I.D. No.: UN1993. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 13
Waste Description: MERCURY COMPOUNDS, LIQUID. EPA Waste Code: D009, MANY (ATTACHED). DOT Shipping Name: WASTE MERCURY COMPOUNDS, LIQUID, NOS; DOT Hazard Class: 6.1; DOT I.D. No.: UN2024. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 14
Waste Description: MERCURY COMPOUNDS, SOLID. EPA Waste Code: D009, MANY (ATTACHED). DOT Shipping Name: WASTE MERCURY COMPOUNDS, SOLID, NOS; DOT Hazard Class: 6.1; DOT I.D. No.: UN2025. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 15
Waste Description: ACID BATTERIES, WET. EPA Waste Code: D002, MANY (ATTACHED). DOT Shipping Name: WASTE BATTERIES, WET, FILLED WITH ACID; DOT Hazard Class: 8; DOT I.D. No.: UN2794. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 16
Waste Description: ALKALINE BATTERIES, WET. EPA Waste Code: D002, MANY (ATTACHED). DOT Shipping Name: WASTE BATTERIES, WET, FILLED WITH ALKALI; DOT Hazard Class: 8; DOT I.D. No.: UN2795. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Koppers018459

Waste Stream No.: 17
Waste Description: POISONOUS LIQUIDS, ORGANIC. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE POISONOUS LIQUIDS, NOS; DOT Hazard Class: 6.1; DOT I.D. No.: UN2810. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 18
Waste Description: POISONOUS SOLIDS, ORGANIC. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE TOXIC SOLIDS, ORGANIC, NOS; DOT Hazard Class: 6.1; DOT I.D. No.: UN2811. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 19
Waste Description: WATER REACTIVE SOLIDS. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE WATER-REACTIVE SOLID, NOS; DOT Hazard Class: 4.3; DOT I.D. No.: UN2813. Total Volume to be Exported: 100,000 KILOGRAMS. Estimated Frequency: 12 loads per YEAR.

Waste Stream No.: 20
Waste Description: FLAMMABLE LIQUIDS, CORROSIVE. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE FLAMMABLE LIQUIDS, CORROSIVE, NOS; DOT Hazard Class: 3; DOT I.D. No.: UN2924. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 21
Waste Description: ALKALINE BATTERIES, DRY. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE BATTERIES, DRY, CONTAINING POTASSIUM; DOT Hazard Class: 8; DOT I.D. No.: UN3028. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 22
Waste Description: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID (METALS). EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE; DOT Hazard Class: 9.2; DOT I.D. No.: UN3077. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 23
Waste Description: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID (CORROSIVES). EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE; DOT Hazard Class: 9.2; DOT I.D. No.: UN3077. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

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Waste Stream No.: 24
Waste Description: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID (ORGANICS). EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE; DOT Hazard Class: 9.2; DOT I.D. No.: UN3077. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 25
Waste Description: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE; DOT Hazard Class: 9.2; DOT I.D. No.: UN3082. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 26
Waste Description: SELF-HEATING SOLIDS (ORGANICS). EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE SELF-HEATING, SOLID, ORGANIC, NOS; DOT Hazard Class: 4.2; DOT I.D. No.: UN3088. Total Volume to be Exported: 100,000 KILOGRAMS. Estimated Frequency: 12 loads per YEAR.

Waste Stream No.: 27
Waste Description: OXIDIZING LIQUID, CORROSIVE. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE OXIDIZING LIQUID, CORROSIVE, NOS; DOT Hazard Class: 5.1; DOT I.D. No.: UN3098. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 28
Waste Description: OXIDIZING LIQUIDS. EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE OXIDIZING SUBSTANCES, LIQUID, NOS; DOT Hazard Class: 5.1; DOT I.D. No.: UN3139. Total Volume to be Exported: 500,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 29
Waste Description: FLAMMABLE SOLIDS. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE FLAMMABLE SOLID, INORGANIC, NOS; DOT Hazard Class: 4.1; DOT I.D. No.: UN3178. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 30
Waste Description: SELF-HEATING SOLIDS (INORGANIC). EPA Waste Code: D001, MANY (ATTACHED). DOT Shipping Name: WASTE SELF-HEATING SOLID, INORGANIC, NOS; DOT Hazard Class: 4.2; DOT I.D. No.: UN3190. Total Volume

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to be Exported: 100,000 KILOGRAMS. Estimated Frequency: 12 loads per YEAR.

Waste Stream No.: 31
Waste Description: ACID SOLIDS, INORGANIC. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE CORROSIVE SOLID, ACIDIC, INORGANIC; DOT Hazard Class: 8; DOT I.D. No.: UN3260. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 32
Waste Description: ACID SOLIDS, ORGANIC. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE CORROSIVE SOLID, ACIDIC, ORGANIC; DOT Hazard Class: 8; DOT I.D. No.: UN3261. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 33
Waste Description: BASIC SOLIDS, INORGANIC. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE CORROSIVE SOLID, BASIC, INORGANIC; DOT Hazard Class: 8; DOT I.D. No.: UN3262. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 34
Waste Description: BASIC SOLIDS, ORGANIC. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE CORROSIVE SOLID, BASIC, ORGANIC; DOT Hazard Class: 8; DOT I.D. No.: UN3263. Total Volume to be Exported: 500,000 KILOGRAMS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 35
Waste Description: ACIDIC LIQUIDS, INORGANIC. EPA Waste Code: D002, MANY (ATTACHED). DOT Shipping Name: WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC; DOT Hazard Class: 8; DOT I.D. No.: UN3264. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 36
Waste Description: ACIDIC LIQUIDS, ORGANIC. EPA Waste Code: D002, MANY (ATTACHED). DOT Shipping Name: WASTE CORROSIVE LIQUID, ACIDIC, ORGANIC; DOT Hazard Class: 8; DOT I.D. No.: UN3265. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

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Waste Stream No.: 37
Waste Description: ALKALINE LIQUID, INORGANIC. EPA Waste Code: D002, MANY (ATTACHED). DOT Shipping Name: WASTE CORROSIVE LIQUID, BASIC, INORGANIC; DOT Hazard Class: 8; DOT I.D. No.: UN3266. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 38
Waste Description: ALKALINE LIQUID, ORGANIC. EPA Waste Code: D002, MANY (ATTACHED). DOT Shipping Name: WASTE CORROSIVE LIQUID, BASIC, ORGANIC; DOT Hazard Class: 8; DOT I.D. No.: UN3267. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 39
Waste Description: POISONOUS LIQUIDS, INORGANIC. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE TOXIC LIQUID, INORGANIC, NOS; DOT Hazard Class: 6.1; DOT I.D. No.: UN3287. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

Waste Stream No.: 40
Waste Description: POISONOUS SOLIDS, INORGANIC. EPA Waste Code: D004, MANY (ATTACHED). DOT Shipping Name: WASTE TOXIC SOLID, INORGANIC, NOS; DOT Hazard Class: 6.1; DOT I.D. No.: UN3288. Total Volume to be Exported: 1,000,000 LITERS. Estimated Frequency: 24 loads per YEAR.

You may ship these wastes to the following consignee:

SAFETY-KLEEN
7842 PROGRESS WAY
DELTA, B.C. V4G 1A4

Shipments may occur during the period from November 17, 2000 to November 10, 2001 for waste streams no. 1, 2, and 4 through 40. Shipments may occur during the period from November 29, 2000 to November 10, 2001 for waste stream, no. 3.

YOUR NOTIFICATION OF INTENT TO EXPORT ON WHICH THIS CONSENT IS BASED LISTED NUMEROUS EPA WASTE NUMBERS (SEE ATTACHMENT A). THIS ATTACHMENT IS INCORPORATED INTO THIS CONSENT BY REFERENCE AND MUST BE ATTACHED TO THE CONSENT COPY ACCOMPANYING EACH SHIPMENT. ONLY WASTES WITH EPA CODES INCLUDED IN THE NOTICE OF INTENT TO EXPORT AND SPECIFICALLY CONSENTED TO BY CANADA MAY BE EXPORTED.

THE SHIPMENT OF THE MATERIAL IN WASTE STREAMS No. 1 and No. 2 IS CONSENTED TO WITH THE FOLLOWING CONDITION: IF THESE GASES COME UNDER THE DEFINITION OF OZONE DEPLETING SUBSTANCES, A

Koppers018463

SPECIAL PERMIT WOULD HAVE TO BE OBTAINED BY THE CANADIAN RECEIVER BEFORE ANY SHIPMENT COULD TAKE PLACE.

THE SHIPMENT OF THE MATERIAL IN WASTE STREAM No. 3 IS CONSENTED TO WITH THE FOLLOWING CONDITION: THIS CONSENT DOES NOT APPLY TO SHIPMENT OF HOUSEHOLD HAZARDOUS WASTE (HHW) PAINT FROM CALIFORNIA OR ANY OTHER U.S. SOURCE, PENDING RESOLUTION OF OUTSTANDING ISSUES BY THE PARTIES (SAFETY-KLEEN, ENVIRONMENT CANADA, AND BC MINISTRY).

You are also reminded of the following special RCRA requirements for export shipments of hazardous waste. Specific details of these requirements are contained in Title 40 of the Code of Federal Regulations, Part 262, Subpart E.

1. If the major terms of the original notice of intent to export on which this consent is based should change, you must renotify EPA. Please mail your renotification to: USEPA, Ariel Rios Building, Mail Code 2222A, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460, with "ATTENTION: IMPORT-EXPORT PROGRAM" prominently displayed on the front of the envelope. (262.53(c)) Alternately, notices may be sent by courier to the same office at the Ariel Rios Building, Room 5124, 1200 Pennsylvania Avenue, NW, Washington, DC 20004.

2. The Uniform Hazardous Waste Manifest Form for each shipment must identify the point of departure from the United States in Item 15, Special Handling Instructions. (262.54(c))

3. The following statement must be added to the end of the first sentence of the certification set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: "and conforms to the terms of the attached EPA Acknowledgment of Consent". (262.54(d))

4. A copy of this Acknowledgment of Consent must be attached to the U.S. hazardous waste manifest that accompanies each shipment of hazardous waste. (262.54(h))

5. You must provide the waste transporter with an additional copy of the U.S. hazardous waste manifest accompanying the shipment for delivery to a U.S. Customs official at the point the hazardous waste leaves the United States in accordance with 263.20(g)(4) and (262.54(i)).

6. You must file an exception report with the USEPA, Ariel Rios Building, Mail Code 2222A, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, ATTN: IMPORT-EXPORT PROGRAM, if you have not received a copy of the manifest signed by the transporter stating the date and place of departure from the U.S. within forty five (45) days from the date it was accepted by the initial transporter; if within ninety (90) days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received; or if the waste is returned to the United States. (262.55). Alternately, exception reports may be

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sent by courier to the same office at the Ariel Rios Building, Room 5124, 1200 Pennsylvania Avenue, NW, Washington, DC 20004.

7. You must file an annual report by March 1 of each year with the USEPA, Ariel Rios Building, Mail Code 2222A, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, ATTN: IMPORT-EXPORT PROGRAM, summarizing all hazardous waste shipments exported during the previous calendar year. The report must include all items listed in 262.56. Alternately, annual reports may be sent by courier to the same office at the Ariel Rios Building, Room 5124, 1200 Pennsylvania Avenue, NW, Washington, DC 20004.

All shipments of hazardous waste must conform to all applicable State and Federal hazardous waste regulations and transportation requirements as well as these specific export requirements.

Any questions you may have concerning this Acknowledgment of Consent or other export requirements may be directed to Mr. Scott Nelson (Phone 202/564-5032), or Mr. Bob Small (Phone 202/564-5043), EPA, Office of Enforcement and Compliance Assurance.

Sincerely,

Robert G. Heiss
Director
Import-Export Program
Enforcement, Planning, Targeting and
Data Division
Office of Compliance (2222A)

Enclosure

Koppers018465

pg 1 of 1

Additional EPA Waste Codes

D004, D005, D006, D007, D008, D009, D010, D011, D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F001, F002, F003, F004, F005, F006, F007, F008, F009, F010, F011, F012, F019, F020, F021, F022, F023, F024, F025, F026, F027, F032, F034, F035, F037, F038, F039

K001, K048, K049, K050, K051, K052, K161, K169, K170, K171, K172

P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, P013, P014, P015, P016, P017, P018, P020, P021, P022, P023, P024, P026, P027, P028, P029, P030, P031, P032, P033, P034, P035, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P062, P063, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P076, P077, P078, P081, P082, P084, P085, P087, P088, P089, P092, P093, P094, P095, P096, P097, P098, P099, P101, P102, P103, P104, P105, P106, P108, P109, P110, P111, P112, P113, P114, P115, P116, P118, P119, P120, P121, P122, P123, P127, P128, P185, P188, P189, P190, P191, P192, P194, P196, P197, P198, P199, P201, P202, P203, P204, P205

U001, U002, U003, U004, U005, U006, U007, U008, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U020, U021, U022, U023, U024, U025, U026, U027, U028, U029, U030, U031, U032, U033, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U069, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U086, U087, U089, U090, U091, U092, U093, U094, U095, U096, U097, U098, U099, U101, U102, U103, U105, U106, U107, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U133, U134, U135, U136, U137, U138, U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U151, U152, U153, U154, U155, U156, U157, U158, U159, U160, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U189, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U204, U205, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U221, U222, U223, U225, U226, U227, U228, U234, U235, U236, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, U249, U271, U278, U279, U280, U328, U353, U359, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409, U410, U411

Washington State Waste Codes

WP01, WP02, WP03, WT01, WT02, WL01, WL02, WSC2

On 12-11-80 Own Lab Tech and myself removed from lab storage;
2-1-Gal jugs of used quinoline (full) 9 lb. ea.
1-5 Gal pail of used quinoline (full) 45 lb
This added to accumulation drum for disposal.

J. J. Turner

Quinoline Disposal.

On 11-15-2000 we added a ¼ drum (150 lb) of used Quinoline To a partial drum of unused raw quinoline. This was done to accumulate all for disposal.

7-751-01

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD027734359
Manifest Document No.: 55671
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
KOPPERS INDUSTRIES INC
7540 NW ST HELENS ROAD
PORTLAND OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN (TG), INC.
6. US EPA ID Number: SCR 000074591
C. State Transporter's ID
D. Transporter's Phone: 503 655-5798

7. Transporter 2 Company Name: MP
8. US EPA ID Number: CAT 000624247
E. State Transporter's ID
F. Transporter's Phone: 803 393 1151

9. Designated Facility Name and Site Address: 050150
SAFETY-KLEEN (LONE & GRASS
EXIT 41 OFF I-80, 3 MILES
EAST, 7 MILES NORTH
CLIVE UT 84083
10. US EPA ID Number: UTD 991301748
G. State Facility's ID
H. Facility's Phone: 801 323-8900

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.9 (CRESOTE) 9 UN3077 PGIII	X	2	DM	00600	P	U051
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
PROFILE 99M-0019
A:000721-001-002 2 X 55G DM

K. Handling Codes for Wastes Listed Above

W601790

15. Special Handling Instructions and Additional Information
MFST R/T#099291918 0009-4699-17
EMERGENCY RESP 800-468-1760(24 HR). IF UNDELIVERABLE RETURN TO GENERATOR.
SEE ATTACHMENT
SKDOT# A: 151988 B: C: D:

W601723

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: TJ Turner
Signature: [signature]
Date: Month 07 Day 25 Year 00

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: AARON CHAVANAM
Signature: Aaron Chavanam
Date: Month 07 Day 25 Year 00

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: JAMES PHILLIPS
Signature: [signature]
Date: Month 07 Day 28 Year 00

19. Discrepancy Indication Space
Profile Number should be GM99-0019 8/9/00.

7000003884 H

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: Becky Fields
Signature: [signature]
Month 08 Day 09 Year 00

GENERATOR / TRANSPORTER / FACILITY

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262.20.

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete
A)6010515/6203618

SAFETY-KLEEN CORP.

ORIGINAL-RETURN TO GENERATOR

90290 (Rev 11/98) 6

Koppers018469

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.: ORD 027734359 | Manifest Document No.: 55671

22. Page 2 of 2

Information in the shaded areas is not required by Federal law.

23. Generator's Name and Mailing Address
Koppers Industries
7540 NW St Helens Rd
Portland OR 97210

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 3 Company Name: Safety-Kleen (TG)

25. US EPA ID Number: SCR 000074591

N. State Transporter's ID

O. Transporter's Phone: 253-288-2800

26. Transporter 4 Company Name: ~~Safety-Kleen Ltd (Delta)~~ MPGS

27. US EPA ID Number: ~~FHT270019804~~ OR700060[illegible]

P. State Transporter's ID: 800458 3036

Q. Transporter's Phone: ~~604-940-0894~~

28. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)

	HM		29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

33. Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name: David Aubry | Signature: [signature] | Date: Month 07 Day 28 Year 00

34. Transporter 4 Acknowledgement of Receipt of Materials

Printed/Typed Name: Pat Martin | Signature: Pat Martin | Date: Month 08 Day 04 Year 00

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90289 (continuation) 6

ORIGINAL-RETURN TO GENERATOR

Koppers018470

RECEIVED

AUG 18 2000

KOPPERS INDS, INC.
PORTLAND OR

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039, expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 | Manifest Document No. 00744 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address Koppers
7540 NW St. Helens Road
Portland, OR 97210
4. Generator's Phone (503) 286-3681

A. State Manifest Document Number 01294629
B. State Generator's ID 99941

5. Transporter 1 Company Name: Eltex Environmental Services | 6. US EPA ID Number: COR000005868
C. State Transporter's ID
D. Transporter's Phone 303/238-8710

7. Transporter 2 Company Name: SLT Express, Inc | 8. US EPA ID Number: UTD981552425
E. State Transporter's ID
F. Transporter's Phone 800/627-3047

9. Designated Facility Name and Site Address
Eltex Chemical
4050 Homestead Road
Houston, TX 77028
10. US EPA ID Number: TXD074196338
G. State Facility's ID 30271
H. Facility's Phone 713/674-2406

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. RQ, Waste Corrosive Liquids, Basic, Inorganics, NOS (lab pack), 8, UN3266, PGII. D002 Drum # 5	001	CF	00005	G	OUTS003H
X	b. RQ, Waste Flammable Liquids, NOS (lab pack) 3, UN1993, PGIII. D001 U154, F003 Drum # 2 4	001	DM	00030	G	OUTS003H
X	c. RQ, Waste Activated Carbon, 4.2, UN1362, PGIII. Drum # 1 D001, D003	001	CF	00005	P	OUTS003H
	d. Non Regulated Lab pack material Drum #3,2	002	CF	00065	P	OUTS003I

J. Additional Descriptions for Materials Listed Above
(A)/(B)/(C)/(D): Eltex #97-02826

K. Handling Codes for Wastes Listed Above
(A)/(B)/(C)/(D): M141

15. Special Handling Instructions and Additional Information
(A) ERG #154 (B) ERG #128 (C) 133
EMGY #713/674-2406 Eltex, Contact John Black.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: CAROL LANE | Signature | Month 7 Day 2 Year 97

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: MATTHEW LACEY | Signature | RECEIVED | Date: Month 07 Day 02 Year 97

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: RAYMOND E. BRAGG | Signature | Date: Month 07 Day 08 Year 97

FACILITY

19. Discrepancy Indication Space
A0060 F003 11b
A0060 D001 & D003 11c
KOPPERS INDS. INC. PORTLAND OR

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: M. WALLRATH | Signature | Date: Month 07 Day 14 Year 97

TNRCC-0311 (Rev. 07/13/94) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

When using the Uniform Waste Manifest for rail or water (bulk shipment) or international shipments refer to the applicable TNRCC regulations.

REPORT SPILLS AND/OR DISCHARGES TO THE TEXAS SPILL RESPONSE CENTER AT 512/463-7727 (24 HOURS)

INSTRUCTIONS TO GENERATOR (Please Type or Print Clearly)

(1) Enter the Generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this manifest by the generator if you are shipping hazardous waste.

(2) Enter the total number of pages used to complete this manifest.

(3) Enter the company name and mailing address.

(4) Provide a phone number where an authorized agent of your firm may be reached in the event of an emergency.

(5) Enter the company name of the first transporter and their U.S. EPA ID Number.

(6) If applicable, enter the company name of the second transporter and their U.S. EPA ID Number. If more than two transporters are used, enter each additional transporter's information on the Continuation Sheet (EPA form 8700-22A).

(7) Enter the company name, site address, and U.S. EPA ID Number of the facility designated to receive the waste listed on this manifest.

(8) **COMPLETE ALL STATE OF TEXAS INFORMATION A. THROUGH H. IN THE SHADED AREAS.**

(9) Complete the waste description table as follows:

(A) ITEM 11A - When shipping an EPA/DOT regulated hazardous waste or material in conjunction with solely state regulated waste enter an "x" in the HM box before each EPA/DOT regulated waste/material description.

(B) ITEM 11 - Enter the U.S. DOT Proper Shipping Name, Hazard Class, and ID Number (UN/NA) for each waste identified. If it is a Class I nonhazardous waste use the Texas Waste Code description.

(C) ITEM 12 - Enter the number of containers for each waste and the appropriate abbreviation for type located in Subchapter A of the TNRCC Industrial Solid Waste Rules.

(D) ITEM 13 - Enter the total quantity of waste described on each line.

(E) ITEM 14 - Enter the appropriate letter from the table below for the unit of measure.

G = Gallons (liquids only)	Y = Cubic Yards	M = Metric Tons (1000 kg.)
P = Pounds	L = Liter (Liquids Only)	N = Cubic Meters
T = Tons (2000 lbs.)	K = Kilograms	

(F) ITEM I - Enter the appropriate TNRCC State Waste Code for each waste you are shipping.

(10) The Generator must read, sign (by hand), and date the certification statement. If a mode other than highway is used, the word "highway" should be lined out and the appropriate mode (rail, water or air) inserted in the space below. In signing the waste minimization certification statement, those generators shipping hazardous waste who have not been exempted by statute or regulation from the duty to make a waste minimization certification are also certifying that they have complied with the waste minimization requirements.

(11) The manifest must be signed and dated by the first transporter in the presence of the Generator. If more than one transporter is to be used, the Generator must provide additional copies for their use.

* (12) Generator retains green copy, sending remaining copies with the driver.

INSTRUCTIONS FOR THE TRANSPORTER (Please Type or Print clearly)

(1) As driver of the transport vehicle, you are responsible for ensuring that all waste received by you arrives at the specified destination.

(2) Sign and date the space provided, certifying the waste amounts in **PART I** were received for transport. **NOTE:** If you are unable to carry out the delivery of the shipment as specified, dial the emergency phone numbers given in **PART I** notifying the **GENERATOR.**

(3) Upon delivery of the shipment, the TSD Facility Owner/Operator is to sign for the shipment in your presence and fill in "date received".

* (4) Separate the yellow copy and retain for your records. Leave the remaining copies with the **TSD** Facility Owner/Operator.

INSTRUCTIONS TO TREATMENT, STORAGE AND DISPOSAL (TSD) FACILITY OWNER/OPERATOR (Please Type or Print Clearly)

(1) The authorized representative of the designated (or alternate) facility's owner or operator must note in **ITEM 19** any significant discrepancy between the waste described on the manifest and the waste actually received at the facility.

(2) Enter date received and sign in the presence of the driver declaring receipt of the wastes and verifying the quantities in the table in **PART I.**

(3) Retain the pink copy for your records and return the completed original (white) copy to the **GENERATOR.**

* U.S. EPA and TNRCC regulations require that copies of this Uniform Hazardous Waste Manifest be retained for a period of three (3) years in your company records. Do **not** send to TNRCC unless otherwise notified by these departments.

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039, expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD027734359 | Manifest Document No. 00744

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Koppers
7540 NW St. Helens Road
Portland, OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 01294629

B. State Generator's ID: 99941

5. Transporter 1 Company Name: Eltex Environmental Services

6. US EPA ID Number: COR000005868

C. State Transporter's ID:

D. Transporter's Phone: 303/238-8710

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
Eltex Chemical
4050 Homestead Road
Houston, TX 77028

10. US EPA ID Number: TXD074196338

G. State Facility's ID: 30271

H. Facility's Phone: 713/674-2406

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. RQ, Waste Corrosive Liquids, Basic, Inorganics, NOS (lab pack), 8, UN3266, PGII. D002 Drum # 5	001	CF	00005	G	OUTS003H
X	b. RQ, Waste Flammable Liquids, NOS (lab pack) 3, UN1993, PGIII. D001 U154 Drum # 4	001	DM	00010	G	OUTS003H
X	c. RQ, Waste Activated Carbon, 4.2, UN1362, PGIII. Drum # 1	001	CF	00005	P	OUTS003H
	d. Non Regulated Lab pack material Drum #3,2	002	CF	00065	P	OUTS0031

J. Additional Descriptions for Materials Listed Above
(A)/(B)/(C)/(D): Eltex #97-0

K. Handling Codes for Wastes Listed Above
(A)/(B)/(C)/(D): M141

15. Special Handling Instructions and Additional Information
(A) ERG #154 (B) ERG #128 (C) 133
EMGY #713/674-2406 Eltex, Contact John Black.

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GENERATOR

Printed/Typed Name: CAROL LANE | Signature | Month 7 Day 2 Year 97

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: MATTHEW LAMEY | Signature | Date: Month 07 Day 02 Year 97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Date: Month Day Year

TNRCC-0311 (Rev. 07/13/94) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

Eltex Chemical
ENVIRONMENTAL SERVICES
4050 Homestead Road
Houston, Texas 77028
713/674-2406 Fax 713/672-0733

GENERATOR NAME: Koppers
EPA ID: ORD027734859
MANIFEST DOCUMENT NO: 00744
ELTEX CHEMICAL PROFILE NO: 97-0

LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM

MATERIAL SUBJECT TO 40 CFR 268.2 LAND DISPOSAL RESTRICTIONS:

TREATABILITY GROUP: WASTEWATER NON WASTEWATER XXX

___ The shipment contains other Land Disposal Restricted materials. Identify ALL US EPA hazardous waste codes that apply to this waste shipment. *Complete pages 2 and 3.*

___ The shipment contains F001-F005 spent solvents: *Complete page 4.*

___ The shipment contains waste subject to California restrictions: *Complete page 4.*

___ The shipment contains F039 multi-source leachate, or D001, D002 (DEACT) waste prohibited under 40 CFR 268.37, or D012 through D043 waste prohibited under the revision to 40 CFR 268.48: *Complete pages 5 and 6.*

X The shipment contains labpacks. *Complete page 7.*

HOW MUST THE WASTE BE MANAGED? In column D from Table 1 enter the number 1-7 that describes how the waste must be managed to comply with 40 CRF 268.7. Please complete the other sections of Table 1 with the applicable US EPA waste codes and subcategories. By entering the number to column D from table 1 you are making the appropriate certification.

1. RESTRICTED WASTE REQUIRING FURTHER TREATMENT.
This waste must be treated in the applicable treatment standards set forth in 40 CFR part 268 subpart D, 268.32, or RCRA Section 3004(d). For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45."

2. RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS.
" I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR 268 subpart D, and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d) without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

3. RESTRICTED WASTES FOR WHICH THE TREATMENT STANDARD IS A SPECIFIED TECHNOLOGY AND THE WASTE HAS BEEN TREATED BY THAT TECHNOLOGY.
" I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.42. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment".

4. GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
" I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the non-wastewater organic constituents have been treated by incineration in units operated in accordance with 40 CFR Part 264, Subpart O, or 40 CFR Part 265, Subpart O, or by combustion in fuel substitution units in accordance with applicable technical requirements, and I have been unable to detect the non-wastewater organic constituents despite having used good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

5. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatable variance, or a case-by-case extension. Enter the effective date of the prohibition in this column as well. For hazardous debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 265.45".

6. RESTRICTED WASTE WHICH CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I have determined that this waste meets all applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and all applicable prohibition levels set forth in Section 268.32, or RCRA Section 3004(d), and therefore can be land disposed without further treatment. A copy of all applicable treatment standards and specified treatment methods is maintained at the treatment, storage, and disposal facility named above. "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support the certification that the waste complies with the treatment standards specified in 40 CFR Part 268 subpart D, and all applicable prohibitions set forth in 40 CFR 2686.32 or RCRA Section 3004(d). I believe that the information I have submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false certification, including the possibility of a fine and imprisonment".

7. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR 268 restrictions.

TABLE 1

Column A	Column B	Column C	Column D
US EPA HAZARDOUS WASTE CODES	SUBCATEGORY DESCRIPTION: IF NOT APPLICABLE CHECK NONE IN COLUMN C	NONE	HOW MUST THE WASTE BE MANAGED. ENTER THE APPROPRIATE NUMBER FROM LIST 1-7 SHOWN ABOVE.

TABLE 1 CONTINUED

Column A	Column B	Column C	Column D
US EPA HAZARDOUS WASTE CODES	SUBCATEGORY DESCRIPTION: IF NOT APPLICABLE CHECK NONE IN COLUMN C	NONE	HOW MUST THE WASTE BE MANAGED. ENTER THE APPROPRIATE NUMBER FROM LIST 1-7 SHOWN ABOVE.

Koppers018477

F001-F005 SPENT SOLVENTS AND CALIFORNIA LIST TREATMENT STANDARDS

If the waste identified on the following pages of this form is described by any of the following US EPA hazardous waste codes: F001, F002, F003, F004, F005, and all solvent constituents will not be monitored by the treater, and/or this hazardous waste is subject to any prohibitions identified as California List restrictions (40 CFR 268.32) and/or RCRA Section 3004(d), then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment.

TABLE 2: SOLVENT WASTE TREATMENT STANDARDS

3	F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Wastewater treatment standard	Non-wastewater treatment standard	3	F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Wastewater treatment standard	Non-wastewater treatment standard
	Acetone(F003)	0.28	160		Methanol(F003)	5.6	0.75 TCLP
	Benzene(F005)	0.14	10		Methylene chloride(F001,F002)	0.089	30
	n-Butyl alcohol(F003)	5.6	2.6		Methyl ethyl ketone(F005)	0.28	36
	Carbon disulfide (F005)	3.8	4.8 TCLP		Methyl isobutyl ketone(F003)	0.14	33
	Carbon tetrachloride (F001)	0.057	6.0		Nitrobenzene(F004)	0.068	14
	Chlorobenzene(F002)	0.057	6.0		2-Nitropropane(F005)	WETOX or CHOXD, followed by CARBN or INCIN	INCIN
	O-Cresol(F004)	0.11	5.6		Pyridine(F005)	0.014	16
	Cresols(m-and p-isomers) (F004)	0.77	5.6		Tetrachloroethlene (F001,F002)	0.056	6.0
	Cyclohexone(F003)	0.36	0.75 TCLP		Toluene(F005)	0.08	10
	o-Dichlorobenzene (F002)	0.088	6.0		1,1,1-Trichloroethane(F001,F002)	0.054	6.0
	2-Ethoxyethanol(F005) (also called ethylene glycol monoethyl ether)	INCIN or BIODG	INCIN		1,1,2-Trichloroethane(F002)	0.054	6.0
	Ethyl acetate(F003)	0.34	33		1,1,2-Trichloro-1,2,2-trifluoroethane(F002)	0.057	30
	Ethyl benzene(F003)	0.057	10		Trichloroethylene (F001,F002)	0.054	6.0
	Ethyl ether(F003)	0.12	160		Trichloromonofluoromethane (F002)	0.02	30
	Isobutanol(F005)	5.6	170		Xylene(F003)(sum of o-,p-,and m-isomers)	0.32	30

All spent solvent treatment standards are measured through a total waste analysis (TCA) unless otherwise noted. Wastewater units are mg/L, non-wastewater are mg/Kg.

CALIFORNIA LIST TREATMENT STANDARDS-40 CFR 268.32, 40 CFR 268.42, AND RCRA Section 3004(d)

A waste must first be designated as a US EPA Hazardous waste before the waste can be subject to the California restrictions

TABLE 3

3	Restricted waste description	Prohibition	Treatment Standard
	Liquid or non-liquid wastes containing halogenated organic compounds listed in 40 CFR 268: Appendix 111	Liquid wastes greater than or equal to 1,000 mg/L Non-liquid wastes greater than or equal to 1,000 mg/Kg	40 CFR 268.42(a)(2), INCIN, FSUBS
	Liquid wastes containing polychlorinated Biphenyls (PCB's)	Greater than or equal to 50 PPM	40 CFR 268.42(a)(1), INCIN, FSUBS, also see 40 CFR 761.60 and .70
	Liquid wastes containing metals note: hazardous wastes containing As, Cd, Cr, Hg, Pb, or Se must also be evaluated if not characteristically hazardous for that metal	One more of the following metals (or elements) at a concentration greater than or equal to the following: Nickel and/or compounds as Ni: 134 mg/L Thalium and/or compounds as Th:130 mg/L	RCRA Section 3004(d)

☐ F039 TREATMENT STANDARDS

☐ D001, D002 (DEACT) STANDARDS

IF THERE ARE NO UTS CONSTITUENTS PRESENT IN THE WASTE UPON IT'S INITIAL GENERATION CHECK HERE ☐

☐ D012 THROUGH D043 REVISED STANDARDS

If D001, D002, or D012-D043 requires treatment to 268.40 standards, then each underlying hazardous constituent present in the waste at the point of generation and at a level above the UTS constituents listed treatment standard must be checked.
If D001 or D002 requires treatment of deactivation and meets F039 standards then each underlying hazardous constituent present in the waste at the point of generation and at a level above the F039 and UTS constituent listed treatment standard must be checked.

CHECK THE INDIVIDUAL CONSTITUENTS LIKELY TO BE PRESENT IN THE LIST THAT FOLLOWS.

TABLE 4

Constituents	WW	NWW	Constituents	WW	NWW
☐Acenaphthylene	0.059	3.4	☐2-Chloronaphthalene	0.055	5.6
☐Acenaphthene	0.059	3.4	☐2-Chlorophenol	0.044	5.7
☐Acetone	0.28	160	☐3-Chloropropylene	0.036	30
☐Acetonitrile	5.6	1.8[2]	☐Chrysene	0.059	3.4
☐Acetophenone	0.010	9.7	☐o-Cresol	0.11	5.6
☐2-Acetylaminofluorene	0.059	140	☐Cresol (m- and p- isomers)	0.77	5.6
☐Acrolein	0.29	NA	☐Cyclohexanone	0.36	0.75[3]
☐Acrylamide	19[2]	23[2]	☐1,2-Dibromo-3-Chloropropane	0.11	15
☐Acrylonitrile	0.24	84	☐1,2-Dibromoethane(Ethylene dibromide)	0.028	15
☐Aldrin	0.021	0.066	☐Dibromomethane	0.11	15
☐4-Aminobiphenyl	0.13	NA	☐2,4-Dichlorophenoxyacetic acid (2,4-D)	0.72	10
☐Aniline	0.81	14	☐o,p-DDD	0.023	0.087
☐Anthracene	0.059	3.4	☐p,p-DDD	0.023	0.087
☐Aramite	0.36	NA	☐o,p-DDE	0.031	0.087
☐alpha-BHC	0.00014	0.066	☐p,p-DDE	0.031	0.087
☐beta-BHC	0.00014	0.066	☐o,p-DDT	0.0039	0.087
☐delta-BHC	0.023	0.066	☐p,p-DDT	0.0039	0.087
☐gamma-BHC (Lindane)	0.00017	0.066	☐Dibenz (a,h) anthracene	0.055	8.2
☐Benzene	0.14	10	☐Dibenz (a,e) pyrene	0.061	NA
☐Benz (a) anthracene	0.059	3.4	☐m-Dichlorobenzene	0.036	6.0
☐Benzal chloride	0.055[3]	6[3]	☐o-Dichlorobenzene	0.088	6.0
☐Benzo (b) flouranthene	0.11	68	☐p-Dichlorobenzene	0.090	6.0
☐Benzo (k) flouranthene	0.11	68	☐Dichlorodifluoromethane	0.23	7.2
☐Benzo (g,h,i) perylene	0.0055	18	☐1,1-Dichloroethane	0.59	6.0
☐Benzo (a) pyrene	0.061	34	☐1,2-Dichloroethane	0.21	6.0
☐Bromodichloromethane	0.35	15	☐1,1-Dichloroethylene	0.025	6.0
☐Bromoform (Tribromomethane)	0.63	15	☐trans-1,2-Dichloroethylene	0.054	30
☐Bromomethane(methyl bromide)	0.11	15	☐2,4-Dichlorophenol	0.044	14
☐4-Bromophenyl phenyl ether	0.055	15	☐2,6-Dichlorophenol	0.044	14
☐n-Butanol (n-butyl alcohol)	5.6	2.6	☐1,2-Dichloropropane	0.85	18
☐Butyl benzyl phthalate	0.017	28	☐cis-1,3-Dichloropropylene	0.036	18
☐2-sec Butyl 4,6 dinitrophenol (Dinoseb)	0.066	2.5	☐trans-1,3-Dichloropropylene	0.036	18
☐Carbon disulfide	3.8	4.8[1,2]	☐Dieldrin	0.017	0.13
☐Carbon tetrachloride	0.057	6.0	☐Diethyl phthalate	0.20	28
☐Chlordane (alpha & gamma)	0.0033	0.26	☐p-Dimethylaminoazobenzene	0.13	NA
☐p-Chloroaniline	0.46	16	☐2,4-Dimethyl phenol	0.036	14
☐Chlorobenzene	0.057	6.0	☐Dimethyl phthalate	0.047	28
☐Chlorobenzilate	0.10	NA	☐Di-n-butyl phthalate	0.057	28
☐2-chloro-1,3-butadiene	0.057	0.28[2]	☐1,4-Dinitrobenzene	0.32	2.3
☐Chlorodibromomethane	0.057	15	☐4,6-Dinitro-o-cresol	0.28	160
☐Chloroethane	0.27	6.0	☐2,4-Dinitrophenol	0.12	160
☐bis-(2-Chloroethoxy) methane	0.036	7.2	☐2,4-Dinitrotoluene	0.32	140
☐bis-(2-Chloroethyl) ether	0.033	6.0	☐2,6-Dinitrotoluene	0.55	28
☐Chloroform	0.046	6.0	☐Di-n-octyl phthalate	0.017	28
☐bis-(2-Chloroisopropyl) ether	0.055	7.2	☐Di-n-propylnitrosoamine	0.40	14
☐p-Chloro-m-cresol	0.018	14	☐1,4-Dioxane	NA	170
☐2-Chloroethyl Vinyl ether	0.062[2]	NA[2]	☐Diphenylamine[4]	0.92	13[3]
☐Chloromethane (methyl chloride)	0.19	30	☐Diphenylnitrosoamine[4]	0.92	13[3]

Koppers018479

TABLE 4 CONTINUED

Constituents	WW	NWW	Constituents	WW	NWW
1,2-Diphenyl hydrazine	0.087	NA	N-Nitrosomorpholine	0.40	2.3
Disulfoton	0.017	6.2	N-Nitrosopiperidine	0.013	35
Endosulfan I	0.023	0.066	N-Nitrosopyrrolidine	0.013	35
Endosulfan II	0.029	0.13	Parathion	0.014	4.6
Endosulfan sulfate	0.029	0.13	PCB's (Total all isomers or Aroclors)	0.10	10
Endrin	0.0028	0.13	Pentachlorobenzene	0.055	10
Endrin aldehyde	0.025	0.13	Pentachloroethane	0.055[3]	6.0[3]
Ethyl acetate	0.34	33	Pentachlorodibenzo-furans	0.000035	0.001
Ethyl benzene	0.057	10	Pentachlorodibenzo-p-dioxins	0.000063	0.001
Ethyl cyanide (Propanenitrile)	0.24	360	Pentachloronitrobenzene	0.055	4.8
Ethyl ether	0.12	160	Pentachlorophenol	0.089	7.4
bis-(2-Ethylhexyl) phthalate	0.28	28	Phenacetin	0.081	16
Ethyl methacrylate	0.14	160	Phenanthrene	0.059	5.6
Ethylene oxide	0.12	NA	Phenol	0.039	6.2
Famphur	0.017	15	Phorate	0.021	4.6
Fluoranthene	0.068	3.4	Phthalic acid	0.055[2]	28[2]
Fluorene	0.059	3.4	Phthalic anhydride	0.055	28[2]
Heptachlor	0.0012	0.066	Pronamide	0.93	15
Heptachlor epoxide	0.016	0.066	Pyrene	0.067	82
Hexachlorobenzene	0.055	10	Pyridine	0.014	16
Hexachlorobutadiene	0.055	5.6	Safrole	0.081	22
Hexachlorocyclopentadiene	0.057	2.4	Silvex (2,4,5-TP)	0.72	79
Hexachlorodibenzo-furans	0.000063	0.001	2,4,5-T	0.72	79
Hexachlorodibenzo-p-dioxins	0.000063	0.001	1,2,4,5-Tetrachlorobenzene	0.055	14
Hexachloroethane	0.055	30	Tetrachlorodibenzo-furans	0.000063	0.001
Hexachloropropylene	0.035	30	Tetrachlorodibenzo-p-dioxins	0.000063	0.001
Indeno (1,2,3-c,d) pyrene	0.0055	3.4	1,1,1,2-Tetrachloroethane	0.057	6.0
Iodomethane	0.19	65	1,1,2,2-Tetrachloroethane	0.057	6.0
Isobutanol (Isobutyl Alcohol)	5.6	170	Tetrachloroethylene	0.056	6.0
Isodrin	0.021	0.066	2,3,4,6-Tetrachlorophenol	0.030	7.4
Isosafrole	0.081	2.6	Toluene	0.80	10
Kepone	0.0011	0.13	Toxaphene	0.0095	2.6
Methacrylonitrile	0.24	84	1,2,4-Trichlorobenzene	0.055	19
Methanol	5.6	0.75[1,2]	1,1,1-Trichloroethane	0.054	6.0
Methapyrilene	0.081	1.5	1,1,2-Trichloroethane	0.054	6.0
Methoxychlor	0.25	0.18	Trichloroethylene	0.054	6.0
3-Methylcholanthrene	0.0055	15	Trichloromonofluoromethane	0.020	30
4,4-Methylene-bis-(2-chloroaniline)	0.50	30	2,4,5-Trichlorophenol	0.18	7.4
Methylene chloride	0.089	30	2,4,6-Trichlorophenol	0.035	7.4
Methyl ethyl ketone	0.28	36	1,2,3-Trichloropropane	0.85	30
Methyl isobutyl ketone	0.14	33	1,1,2-Trichloro-1,2,2-trifluoroethane	0.057	30
Methyl methacrylate	0.14	160	Tris(2,3-dibromopropyl) phosphate	0.11	0.10[2]
Methyl methanesulfonate	0.018	NA	Vinyl chloride	0.27	6.0
Methyl parathion	0.014	4.6	Xylene (sum of o-,m-, and p-isomers)	0.32	30
Naphthalene	0.059	5.6	Cyanides (Total)	1.2	590
2-Naphthylamine	0.52	NA	Cyanides (Amenable)	0.86	30[3]
o-Nitroaniline	0.27[2]	14[2]	Arsenic	1.4	5.0[1]
p-Nitroaniline	0.028	28	Barium	1.2	7.6[1]
Nitrobenzene	0.068	14	Beryllium	0.82	0.014[1,2]
5-Nitro-o-toluidine	0.32	28	Cadmium	0.69	0.19[1]
o-Nitrophenol	0.028[2]	13[2]	Chromium (Total)	2.77	0.86[1]
p-Nitrophenol	0.12	29	Fluoride	35	NA
N-Nitrosodiethylamine	0.40	28	Lead	0.69	0.37[1]
N-Nitrosodimethylamine	0.40	2.3[2]	Mercury (Not from retorting)	0.15	0.025[1]
N-Nitroso-di-n-butylamine	0.40	17	Antimony	1.9	2.1[1]
N-Nitrosomethylethylamine	0.40	2.3	Nickel	3.98	5.0[1]

F039 TREATMENT STANDARDS CONTINUED
D001,D002 (DEACT) STANDARDS CONTINUED
D012 THROUGH D043 REVISED STANDARDS CONTINUED
TABLE 4 CONTINUED

Constituents	WW	NWW
CSelenium	0.82	0.16[1]
CSilver	0.43	0.30[1]
CSulfide	14	NA
CThallium	1.4	0.078[1,2]
CVanadium	4.3	0.23[1,2]
CZinc	2.61[3]	NA

1. These concentrations are expressed in mg/L and are measured through an analysis of TCLP extract all others are measured through a total waste analysis.
2. These constituents are only applicable as Underlying Hazardous Constituents. They are not constituents requiring treatment in F039 wastes.
3. Zinc is not an Underlying Hazardous Constituent requiring treatment in D001,D002, or D012-D043 wastes.
4. These compounds are regulated by the sum of their concentration instead of as individual constituents.
NOTE: Wastewater units are in mg/L, non-wastewater are in mg/Kg.

LABPACKS (268.42: Appendix iv)

1. APPENDIX IV DRUMS:
This notification and certification applies to the following drums on this shipment: (list the drum identification number(s)):

_____

I certify under penalty of the law that I personally have examined and am familiar with the waste through testing or through knowledge of the waste and that the lab pack contains only the wastes specified in appendix IV to part 268 or solid wastes not subject to regulation under 40 CFR part 261. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

2. ALL DRUMS THAT MAY NOT BE PACKAGED AS APPENDIX IV TYPE LABPACKS
The US EPA hazardous waste codes are: D009, F019, K003, K004, K005, K006, K062, K071, K100, K106, P010, P011, P0112, P076, P078, U134, U151. The alternative treatment standard is incineration.
This notification applies to those wastes in the following drums on this shipment: (list the drum identification number(s)):

_____

CERTIFICATION

"I hereby certify that all information in this and all associated documents is complete and accurate to the best of my knowledge and information, and that Eitex Chemical has all the necessary permits and licenses for the waste that has been identified by the profile, if approved for management".

Authorized Representative Signature_____

Print or Type Name_____

Title_____Date_____

FORM # ELT011294LDR
REVISED # ELT042195LDR

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039, expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD027734359 | Manifest Document No.: 00745

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Koppers
7540 NW St. Helens Road
Portland, OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 01294630

B. State Generator's ID: 99941

5. Transporter 1 Company Name: Eltex Environmental Services | 6. US EPA ID Number: COR000005868

C. State Transporter's ID:

D. Transporter's Phone: 303/238-8710

7. Transporter 2 Company Name: SLT Express, Inc. | 8. US EPA ID Number: UT0981552425

E. State Transporter's ID:

F. Transporter's Phone: 800/627-3047

9. Designated Facility Name and Site Address: Eltex Chemical
4050 Homestead road
Houston, TX 77028 | 10. US EPA ID Number: TXD074196338

G. State Facility's ID: 30271

H. Facility's Phone: 713/674-2406

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. RQ, Waste Oxidizing Solids, NOS (lab pack) 5.1, UN1479, PGII. D001 D007 Drum #8	001	CF	00003	P	OUTS003H
X	b. RQ, Waste Toxic Liquid, Organic, NOS (lab pack), 6.1, UN2810, PGIII. U188 Drum #7	001	CF	00005	G	OUTS003H
X	c. RQ, Waste Corrosive Liquid, NOS (lab packs), 8, UN1760, PGIII. D002 Drum #6	001	CF	00005	G	OUTS003H
X	d. RQ, Waste Mercury, 8, UN2809, PGII. D009, U151 Drum #9	001	CF	00002	G	OUTS003H

J. Additional Descriptions for Materials Listed Above
(A)/(B)/(C)/(D): Eltex #97-02826

K. Handling Codes for Wastes Listed Above
(A)/(B)/(C)/(D): M141

15. Special Handling Instructions and Additional Information
(A) ERG #140 (B) ERG #153 (C) #154 (D) ERG #172
EMGY #713/674-2406 Eltex, Contact John Black.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: CAROL LANE | Signature: Carol Lane | Month Day Year: 7 9 97

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name: MATHEW LACEY | Signature: Mathew Lacey | RECEIVED | Month Day Year: 07 10 97

18. Transporter 2 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name: Raymond E. Brown | Signature: Raymond E. Brown 1887 | Month Day Year: 07 08 97

FACILITY

19. Discrepancy Indication Space
ADDED WASTE CODES 11d
KOPPERS INDS., INC.
PORTLAND, OR

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. | Date

Printed/Typed Name: M. WALLRATH | Signature: M. Wallrath | Month Day Year: 07 14 97

TNRCC-0311 (Rev. 07/13/94) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

Koppers018482

When using the Uniform Waste Manifest for rail or water (bulk shipment) or international shipments refer to the applicable TNRCC regulations.

REPORT SPILLS AND/OR DISCHARGES TO THE TEXAS SPILL RESPONSE CENTER AT 512/463-7727 (24 HOURS)

INSTRUCTIONS TO GENERATOR (Please Type or Print Clearly)

(1) Enter the Generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this manifest by the generator if you are shipping hazardous waste.

(2) Enter the total number of pages used to complete this manifest.

(3) Enter the company name and mailing address.

(4) Provide a phone number where an authorized agent of your firm may be reached in the event of an emergency.

(5) Enter the company name of the first transporter and their U.S. EPA ID Number.

(6) If applicable, enter the company name of the second transporter and their U.S. EPA ID Number. If more than two transporters are used, enter each additional transporter's information on the Continuation Sheet (EPA form 8700-22A).

(7) Enter the company name, site address, and U.S. EPA ID Number of the facility designated to receive the waste listed on this manifest.

(8) **COMPLETE ALL STATE OF TEXAS INFORMATION A. THROUGH H. IN THE SHADED AREAS.**

(9) Complete the waste description table as follows:

(A) ITEM 11A - When shipping an EPA/DOT regulated hazardous waste or material in conjunction with solely state regulated waste enter an "x" in the HM box before each EPA/DOT regulated waste/material description.

(B) ITEM 11 - Enter the U.S. DOT Proper Shipping Name, Hazard Class, and ID Number (UN/NA) for each waste identified. If it is a Class I nonhazardous waste use the Texas Waste Code description.

(C) ITEM 12 - Enter the number of containers for each waste and the appropriate abbreviation for type located in Subchapter A of the TNRCC Industrial Solid Waste Rules.

(D) ITEM 13 - Enter the total quantity of waste described on each line.

(E) ITEM 14 - Enter the appropriate letter from the table below for the unit of measure.

G = Gallons (liquids only)	Y = Cubic Yards	M = Metric Tons (1000 kg.)
P = Pounds	L = Liter (Liquids Only)	N = Cubic Meters
T = Tons (2000 lbs.)	K = Kilograms	

(F) ITEM I - Enter the appropriate TNRCC State Waste Code for each waste you are shipping.

(10) The Generator must read, sign (by hand), and date the certification statement. If a mode other than highway is used, the word "highway" should be lined out and the appropriate mode (rail, water or air) inserted in the space below. In signing the waste minimization certification statement, those generators shipping hazardous waste who have not been exempted by statute or regulation from the duty to make a waste minimization certification are also certifying that they have complied with the waste minimization requirements.

(11) The manifest must be signed and dated by the first transporter in the presence of the Generator. If more than one transporter is to be used, the Generator must provide additional copies for their use.

* (12) Generator retains green copy, sending remaining copies with the driver.

INSTRUCTIONS FOR THE TRANSPORTER (Please Type or Print clearly)

(1) As driver of the transport vehicle, you are responsible for ensuring that all waste received by you arrives at the specified destination.

(2) Sign and date the space provided, certifying the waste amounts in **PART I** were received for transport. NOTE: If you are unable to carry out the delivery of the shipment as specified, dial the emergency phone numbers given in **PART I** notifying the **GENERATOR.**

(3) Upon delivery of the shipment, the TSD Facility Owner/Operator is to sign for the shipment in your presence and fill in "date received".

* (4) Separate the yellow copy and retain for your records. Leave the remaining copies with the **TSD** Facility Owner/Operator.

INSTRUCTIONS TO TREATMENT, STORAGE AND DISPOSAL (TSD) FACILITY OWNER/OPERATOR (Please Type or Print Clearly)

(1) The authorized representative of the designated (or alternate) facility's owner or operator must note in **ITEM 19** any significant discrepancy between the waste described on the manifest and the waste actually received at the facility.

(2) Enter date received and sign in the presence of the driver declaring receipt of the wastes and verifying the quantities in the table in **PART I.**

(3) Retain the pink copy for your records and return the completed original (white) copy to the **GENERATOR.**

* U.S. EPA and TNRCC regulations require that copies of this Uniform Hazardous Waste Manifest be retained for a period of three (3) years in your company records. Do **not** send to TNRCC unless otherwise notified by these departments.

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 19 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039, expires 09/30/95

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A. State Manifest Document Number: 01294630
B. State Generator's ID: 99941
C. State Transporter's ID:
D. Transporter's Phone: 303/238-8710
E. State Transporter's ID:
F. Transporter's Phone:

5. Transporter 1 Company Name: Eltex Environmental Services | 6. US EPA ID Number: CORO00005868
7. Transporter 2 Company Name | 8. US EPA ID Number:

9. Designated Facility Name and Site Address: Eltex Chemical
4050 Homestead road
Houston, TX 77028 | 10. US EPA ID Number: TXD074196338

G. State Facility's ID: 30271
H. Facility's Phone: 713/674-2406

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J. Additional Descriptions for Materials Listed Above
(A)/(B)/(C)/(D): Eltex #97-9

K. Handling Codes for Wastes Listed Above
(A)/(B)/(C)/(D): M141

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(A) ERG #140 (B) ERG #153 (C) #154 (D) ERG #172
EMGY #713/674-2406 Eltex, Contact John Black.

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If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
CAROL LANE		7	2	97

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
MATHEW LATEY		07	02	97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

TNRCC-0311 (Rev. 07/13/94) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

Koppers018484

Eltex Chemical
ENVIRONMENTAL SERVICES
4050 Homestead Road
Houston, Texas 77028
713/674-2406 Fax 713/672-0733

GENERATOR NAME: Koppers
EPA ID: ORD027784369
MANIFEST DOCUMENT NO: 00745
ELTEX CHEMICAL PROFILE NO: 97-0

LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM

MATERIAL SUBJECT TO 40 CFR 268.2 LAND DISPOSAL RESTRICTIONS:

TREATABILITY GROUP: WASTEWATER NON WASTEWATER XXX

___ The shipment contains other Land Disposal Restricted materials. Identify ALL US EPA hazardous waste codes that apply to this waste shipment. *Complete pages 2 and 3.*

___ The shipment contains F001-F005 spent solvents: *Complete page 4.*

___ The shipment contains waste subject to California restrictions: *Complete page 4.*

___ The shipment contains F039 multi-source leachate, or D001, D002 (DEACT) waste prohibited under 40 CFR 268.37, or D012 through D043 waste prohibited under the revision to 40 CFR 268.48: *Complete pages 5 and 6.*

Y The shipment contains labpacks. *Complete page 7.*

HOW MUST THE WASTE BE MANAGED? In column D from Table 1 enter the number 1-7 that describes how the waste must be managed to comply with 40 CRF 268.7. Please complete the other sections of Table 1 with the applicable US EPA waste codes and subcategories. By entering the number to column D from table 1 you are making the appropriate certification.

1. RESTRICTED WASTE REQUIRING FURTHER TREATMENT.
This waste must be treated in the applicable treatment standards set forth in 40 CFR part 268 subpart D, 268.32, or RCRA Section 3004(d). For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45."

2. RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS.
" I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that based on my inquiry of those individuals immediately responsible for obtaining this information. I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR 268 subpart D, and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d) without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

3. RESTRICTED WASTES FOR WHICH THE TREATMENT STANDARD IS A SPECIFIED TECHNOLOGY AND THE WASTE HAS BEEN TREATED BY THAT TECHNOLOGY.
" I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.42. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment".

4. GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
" I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that based on my inquiry of those individuals immediately responsible for obtaining this information. I believe that the non-wastewater organic constituents have been treated by incineration in units operated in accordance with 40 CFR Part 264, Subpart O, or 40 CFR Part 265, Subpart D, or by combustion in fuel substitution units in accordance with applicable technical requirements, and I have been unable to detect the non-wastewater organic constituents despite having used good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

5. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatable variance, or a case-by-case extension. Enter the effective date of the prohibition in this column as well. For hazardous debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 265.45".

6. RESTRICTED WASTE WHICH CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I have determined that this waste meets all applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and all applicable prohibition levels set forth in Section 268.32, or RCRA Section 3004(d), and therefore can be land disposed without further treatment. A copy of all applicable treatment standards and specified treatment methods is maintained at the treatment, storage, and disposal facility named above. "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support the certification that the waste complies with the treatment standards specified in 40 CFR Part 268 subpart D, and all applicable prohibitions set forth in 40 CFR 2686.32 or RCRA Section 3004(d). I believe that the information I have submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false certification, including the possibility of a fine and imprisonment".

7. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR 268 restrictions.

TABLE 1

Column A	Column B	Column C	Column D
US EPA HAZARDOUS WASTE CODES	SUBCATEGORY DESCRIPTION: IF NOT APPLICABLE CHECK NONE IN COLUMN C	NONE	HOW MUST THE WASTE BE MANAGED. ENTER THE APPROPRIATE NUMBER FROM LIST 1-7 SHOWN ABOVE.

TABLE 1 CONTINUED

Column A	Column B	Column C	Column D
US EPA HAZARDOUS WASTE CODES	SUBCATEGORY DESCRIPTION: IF NOT APPLICABLE CHECK NONE IN COLUMN C	NONE	HOW MUST THE WASTE BE MANAGED: ENTER THE APPROPRIATE NUMBER FROM LIST 1-7 SHOWN ABOVE.

Koppers018487

F001-F005 SPENT SOLVENTS AND CALIFORNIA LIST TREATMENT STANDARDS

If the waste identified on the following pages of this form is described by any of the following US EPA hazardous waste codes: F001, F002, F003, F004, F005, and all solvent constituents will not be monitored by the treater, and/or this hazardous waste is subject to any prohibitions identified as California List restrictions (40 CFR 268.32) and/or RCRA Section 3004(d), then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment.

TABLE 2: SOLVENT WASTE TREATMENT STANDARDS

3	F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Wastewater treatment standard	Non-wastewater treatment standard	3	F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Wastewater treatment standard	Non-wastewater treatment standard
	Acetone(F003)	0.28	160		Methanol(F003)	5.6	0.75 TCLP
	Benzene(F005)	0.14	10		Methylene chloride(F001,F002)	0.089	30
	n-Butyl alcohol(F003)	5.6	2.6		Methyl ethyl ketone(F005)	0.28	36
	Carbon disulfide (F005)	3.8	4.8 TCLP		Methyl isobutyl ketone(F003)	0.14	33
	Carbon tetrachloride (F001)	0.057	6.0		Nitrobenzene(F004)	0.068	14
	Chlorobenzene(F002)	0.057	6.0		2-Nitropropane(F005)	WETOX or CHOXD, followed by CARBN or INCIN	INCIN
	O-Cresol(F004)	0.11	5.6		Pyridine(F005)	0.014	16
	Cresols(m-and p-isomers) (F004)	0.77	5.6		Tetrachloroethlene (F001,F002)	0.056	6.0
	Cyclohexone(F003)	0.36	0.75 TCLP		Toluene(F005)	0.08	10
	o-Dichlorobenzene (F002)	0.088	6.0		1,1,1-Trichloroethane(F001,F002)	0.054	6.0
	2-Ethoxyethanol(F005) (also called ethylene glycol monoethyl ether)	INCIN or BIODG	INCIN		1,1,2-Trichloroethane(F002)	0.054	6.0
	Ethyl acetate(F003)	0.34	33		1,1,2-Trichloro-1,2,2-trifluoroethane(F002)	0.057	30
	Ethyl benzene(F003)	0.057	10		Trichloroethylene (F001,F002)	0.054	6.0
	Ethyl ether(F003)	0.12	160		Trichloromonofluoromethane (F002)	0.02	30
	Isobutanol(F005)	5.6	170		Xylene(F003)(sum of o-,p-,and m-isomers)	0.32	30

All spent solvent treatment standards are measured through a total waste analysis (TCA) unless otherwise noted. Wastewater units are mg/L, non-wastewater are mg/Kg.

CALIFORNIA LIST TREATMENT STANDARDS-40 CFR 268.32, 40 CFR 268.42, AND RCRA Section 3004(d)

A waste must first be designated as a US EPA Hazardous waste before the waste can be subject to the California restrictions

TABLE 3

3	Restricted waste description	Prohibition	Treatment Standard
	Liquid or non-liquid wastes containing halogenated organic compounds listed in 40 CFR 268: Appendix III	Liquid wastes greater than or equal to 1,000 mg/L Non-liquid wastes greater than or equal to 1,000 mg/Kg	40 CFR 268.42(a)(2), INCIN, FSUBS
	Liquid wastes containing polychlorinated Biphenyls (PCB's)	Greater than or equal to 50 PPM	40 CFR 268.42(a)(1), INCIN, FSUBS, also see 40 CFR 761.60 and .70
	Liquid wastes containing metals note: hazardous wastes containing As, Cd, Cr, Hg, Pb, or Se must also be evaluated if not characteristically hazardous for that metal	One more of the following metals (or elements) at a concentration greater than or equal to the following: Nickel and/or compounds as Ni: 134 mg/L Thalium and/or compounds as Th:130 mg/L	RCRA Section 3004(d)

☐ F039 TREATMENT STANDARDS

☐ D001, D002 (DEACT) STANDARDS

IF THERE ARE NO UTS CONSTITUENTS PRESENT IN THE WASTE UPON IT'S INITIAL GENERATION CHECK HERE ☐

☐ D012 THROUGH D043 REVISED STANDARDS

If D001, D002, or D012-D043 requires treatment to 268.40 standards, then each underlying hazardous constituent present in the waste at the point of generation and at a level above the UTS constituents listed treatment standard must be checked.
If D001 or D002 requires treatment of deactivation and meets F039 standards then each underlying hazardous constituent present in the waste at the point of generation and at a level above the F039 and UTS constituent listed treatment standard must be checked.

CHECK THE INDIVIDUAL CONSTITUENTS LIKELY TO BE PRESENT IN THE LIST THAT FOLLOWS.

TABLE 4

Constituents	WW	NWW	Constituents	WW	NWW
☐Acenaphthylene	0.059	3.4	☐2-Chloronaphthalene	0.055	5.6
☐Acenaphthene	0.059	3.4	☐2-Chlorophenol	0.044	5.7
☐Acetone	0.28	160	☐3-Chloropropylene	0.036	30
☐Acetonitrile	5.6	1.8[2]	☐Chrysene	0.059	3.4
☐Acetophenone	0.010	9.7	☐o-Cresol	0.11	5.6
☐2-Acetylaminofluorene	0.059	140	☐Cresol (m- and p- isomers)	0.77	5.6
☐Acrolein	0.29	NA	☐Cyclohexanone	0.36	0.75[2]
☐Acrylamide	19[2]	23[2]	☐1,2-Dibromo-3-Chloropropane	0.11	15
☐Acrylonitrile	0.24	84	☐1,2-Dibromoethane(Ethylene dibromide)	0.028	15
☐Aldrin	0.021	0.066	☐Dibromomethane	0.11	15
☐4-Aminobiphenyl	0.13	NA	☐2,4-Dichlorophenoxyacetic acid (2,4-D)	0.72	10
☐Aniline	0.81	14	☐p,p-DDD	0.023	0.087
☐Anthracene	0.059	3.4	☐p,p-DDD	0.023	0.087
☐Aramite	0.36	NA	☐p,p-DDE	0.031	0.087
☐alpha-BHC	0.00014	0.066	☐p,p-DDE	0.031	0.087
☐beta-BHC	0.00014	0.066	☐p,p-DDT	0.0039	0.087
☐delta-BHC	0.023	0.066	☐p,p-DDT	0.0039	0.087
☐gamma-BHC (Lindane)	0.00017	0.066	☐Dibenz (a,h) anthracene	0.055	8.2
☐Benzene	0.14	10	☐Dibenz (a,e) pyrene	0.061	NA
☐Benz (a) anthracene	0.059	3.4	☐m-Dichlorobenzene	0.036	6.0
☐Benzal chloride	0.055[2]	60[2]	☐o-Dichlorobenzene	0.088	6.0
☐Benzo (b) flouranthene	0.11	68	☐p-Dichlorobenzene	0.090	6.0
☐Benzo (k) flouranthene	0.11	68	☐Dichlorodifluoromethane	0.23	7.2
☐Benzo (g,h,i) perylene	0.0055	18	☐1,1-Dichloroethane	0.59	6.0
☐Benzo (a) pyrene	0.061	34	☐1,2-Dichloroethane	0.21	6.0
☐Bromodichloromethane	0.35	15	☐1,1-Dichloroethylene	0.025	6.0
☐Bromoform (Tribromomethane)	0.63	15	☐trans-1,2-Dichloroethylene	0.054	30
☐Bromomethane(methyl bromide)	0.11	15	☐2,4-Dichlorophenol	0.044	14
☐4-Bromophenyl phenyl ether	0.055	15	☐2,6-Dichlorophenol	0.044	14
☐n-Butanol (n-butyl alcohol)	5.6	2.6	☐1,2-Dichloropropane	0.85	18
☐Butyl benzyl phthalate	0.017	28	☐cis-1,3-Dichloropropylene	0.036	18
☐2-sec Butyl 4,6 dinitrophenol (Dinoseb)	0.066	2.5	☐trans-1,3-Dichloropropylene	0.036	18
☐Carbon disulfide	3.8	4.8[1,2]	☐Dieldrin	0.017	0.13
☐Carbon tetrachloride	0.057	6.0	☐Diethyl phthalate	0.20	28
☐Chlordane (alpha & gamma)	0.0033	0.26	☐p-Dimethylaminoazobenzene	0.13	NA
☐p-Chloroaniline	0.46	16	☐2,4-Dimethyl phenol	0.036	14
☐Chlorobenzene	0.057	6.0	☐Dimethyl phthalate	0.047	28
☐Chlorobenzilate	0.10	NA	☐Di-n-butyl phthalate	0.057	28
☐2-chloro-1,3-butadiene	0.057	0.28[2]	☐1,4-Dinitrobenzene	0.32	2.3
☐Chlorodibromomethane	0.057	15	☐4,6-Dinitro-o-cresol	0.28	160
☐Chloroethane	0.27	6.0	☐2,4-Dinitrophenol	0.12	160
☐bis-(2-Chloroethoxy) methane	0.036	7.2	☐2,4-Dinitrotoluene	0.32	140
☐bis-(2-Chloroethyl) ether	0.033	6.0	☐2,6-Dinitrotoluene	0.55	28
☐Chloroform	0.046	6.0	☐Di-n-octyl phthalate	0.017	28
☐bis-(2-Chloroisopropyl) ether	0.055	7.2	☐Di-n-propylnitrosoamine	0.40	14
☐p-Chloro-m-cresol	0.018	14	☐1, 4-Dioxane	NA	170
☐2-Chloroethyl Vinyl ether	0.062[2]	NA[2]	☐Diphenylamine[4]	0.92	13[2]
☐Chloromethane (methyl chloride)	0.19	30	☐Diphenylnitrosoamine[4]	0.92	13[2]

Koppers018489

TABLE 4 CONTINUED

nstituents	WW	NWW	Constituents	WW	NWW
2-Dibenzyl hydrazine	0.087	NA	N-Nitrosomorpholine	0.40	2.3
Disulfoton	0.017	6.2	N-Nitrosopiperidine	0.013	35
Endosulfan I	0.023	0.066	N-Nitrosopyrrolidine	0.013	35
Endosulfan II	0.029	0.13	Parathion	0.014	4.6
Endosulfan sulfate	0.029	0.13	PCB's (Total all isomers or Aroclors)	0.10	10
Endrin	0.0028	0.13	Pentachlorobenzene	0.055	10
Endrin aldehyde	0.025	0.13	Pentachloroethane	0.055[2]	6.0[2]
Ethyl acetate	0.34	33	Pentachlorodibenzo-furans	0.000035	0.001
Ethyl benzene	0.057	10	Pentachlorodibenzo-p-dioxins	0.000063	0.001
Ethyl cyanide (Propanenitrile)	0.24	360	Pentachloronitrobenzene	0.055	4.8
Ethyl ether	0.12	160	Pentachlorophenol	0.089	7.4
bis-(2-Ethylhexyl) phthalate	0.28	28	Phenacetin	0.081	16
Ethyl methacrylate	0.14	160	Phenanthrene	0.059	5.6
Ethylene oxide	0.12	NA	Phenol	0.039	6.2
Famphur	0.017	15	Phorate	0.021	4.6
Fluoranthene	0.068	3.4	Phthalic acid	0.055[2]	28[2]
Fluorene	0.059	3.4	Phthalic anhydride	0.055	28[2]
Heptachlor	0.0012	0.066	Pronamide	0.93	15
Heptachlor epoxide	0.016	0.066	Pyrene	0.067	82
Hexachlorobenzene	0.055	10	Pyridine	0.014	16
Hexachlorobutadiene	0.055	5.6	Safrole	0.081	22
Hexachlorocyclopentadiene	0.057	2.4	Silvex (2,4,5-TP)	0.72	79
Hexachlorodibenzo-furans	0.000063	0.001	2,4,5-T	0.72	79
Hexachlorodibenzo-p-dioxins	0.000063	0.001	1,2,4,5-Tetrachlorobenzene	0.055	14
Hexachloroethane	0.055	30	Tetrachlorodibenzo-furans	0.000063	0.001
Hexachloropropylene	0.035	30	Tetrachlorodibenzo-p-dioxins	0.000063	0.001
Indeno (1,2,3-c,d) pyrene	0.0055	3.4	1,1,1,2-Tetrachloroethane	0.057	6.0
Iodomethane	0.19	65	1,1,2,2-Tetrachloroethane	0.057	6.0
Isobutanol (Isobutyl Alcohol)	5.6	170	Tetrachloroethylene	0.056	6.0
Isodrin	0.021	0.066	2,3,4,6-Tetrachlorophenol	0.030	7.4
Isosafrole	0.081	2.6	Toluene	0.80	10
Kepone	0.0011	0.13	Toxaphene	0.0095	2.6
Methacrylonitrile	0.24	84	1,2,4-Trichlorobenzene	0.055	19
Methanol	5.6	0.75[1,2]	1,1,1-Trichloroethane	0.054	6.0
Methapyrilene	0.081	1.5	1,1,2-Trichloroethane	0.054	6.0
Methoxychlor	0.25	0.18	Trichloroethylene	0.054	6.0
3-Methylcholanthrene	0.0055	15	Trichloromonofluoromethane	0.020	30
4,4-Methylene-bis-(2-chloroaniline)	0.50	30	2,4,5-Trichlorophenol	0.18	7.4
Methylene chloride	0.089	30	2,4,6-Trichlorophenol	0.035	7.4
Methyl ethyl ketone	0.28	36	1,2,3-Trichloropropane	0.85	30
Methyl isobutyl ketone	0.14	33	1,1,2-Trichloro-1,2,2-trifluoroethane	0.057	30
Methyl methacrylate	0.14	160	Tris(2,3-dibromopropyl) phosphate	0.11	0.10[2]
Methyl methanesulfonate	0.018	NA	Vinyl chloride	0.27	6.0
Methyl parathion	0.014	4.6	Xylene (sum of o-,m-, and p-isomers)	0.32	30
Naphthalene	0.059	5.6	Cyanides (Total)	1.2	590
2-Naphthylamine	0.52	NA	Cyanides (Amenable)	0.86	30[2]
o-Nitroaniline	0.27[2]	14[2]	Arsenic	1.4	5.0[1]
p-Nitroaniline	0.028	28	Barium	1.2	7.6[1]
Nitrobenzene	0.068	14	Beryllium	0.82	0.014[1,2]
5-Nitro-o-toluidine	0.32	28	Cadmium	0.69	0.19[1]
o-Nitrophenol	0.028[2]	13[2]	Chromium (Total)	2.77	0.86[1]
p-Nitrophenol	0.12	29	Fluoride	35	NA
N-Nitrosodiethylamine	0.40	28	Lead	0.69	0.37[1]
N-Nitrosodimethylamine	0.40	2.3[2]	Mercury (Not from retorting)	0.15	0.025[1]
N-Nitroso-di-n-butylamine	0.40	17	Antimony	1.9	2.1[1]
N-Nitrosomethylethylamine	0.40	2.3	Nickel	3.98	5.0[1]

KOPPERS INDUSTRIES

LOGISTICS DEPARTMENT
INTEROFFICE CORRESPONDENCE

To:	All Plant Managers	From:	J. S. Sebbens
Location:	Various	Location:	K-1650 - Pittsburgh
Subject:	Hazardous Materials Registration 1997-1998	Date:	June 16, 1997

Attached is a copy of Koppers Industries' Hazardous Materials Certificate of Registration renewal of 1997-1998. Please keep this certificate on file or display one copy prominently in your facility, as may be required by an authorized representative or agent of the U. S. DOT during an inspection. A copy of the certificate or registration number should also be carried in all Company commercial motor vehicles.

The registration number 060297 010 023F was issued to Koppers Industries on a corporate basis. All supporting documentation will be maintained on file in Pittsburgh as the principle place of business.

Registration is required annually. This certificate expires June 30, 1998 and will be revised as our business dictates for our annual renewal.

Please direct any inquiries regarding our registration to me at 412-227-2848.

Jay
J. S. Sebbens

JSS/mjg

Attachment

c: T. N. Izaj - K-2028

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

HAZARDOUS MATERIALS
CERTIFICATE OF REGISTRATION

Registrant: KOPPERS INDUSTRIES INC.
Attn: J S Sebbens
436 Seventh Ave. Room 1650
Pittsburg, PA 15219-1800

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CFR Part 107, Subpart G.

This certificate is issued under the authority of Section 106(c)(1) of the Hazardous Materials Transportation Act, 49 App. U.S.C. 1801, et. seq. It is unlawful to alter or falsify this document.

Reg. No: 060297 010 023F Issued: 06/04/97 Expires: 06/30/98

Recordkeeping Requirements for the Registration Program

The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

(1) A copy of the registration statement filed with RSPA; and
(2) This Certificate of Registration.

Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U.S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made avialable, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, DHM-60 Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590, telephone (202)366-4109.

95382444

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-96)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
ORD027134359	82444		

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES INC.
7540 NW ST. HELENS ROAD
PORTLAND, OREGON 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 95382444

B. State Generator's ID: EXEMPT

5. Transporter 1 Company Name: K&S Transportation

6. US EPA ID Number: CAD982495608

C. State Transporter's ID: 615611-438295

D. Transporter's Phone: 805-589-5220

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address: SOLVENT SERVICE CO.
1021 BERRYESSA RD.
SAN JOSE, CA. 95133

10. US EPA ID Number: CAD059494310

G. State Facility's ID: CAD059494310

H. Facility's Phone: 408-451-5000

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, HAZARDOUS WASTE SOLID, NOS (CREOSOTE) (U051), 9, NA3077, III	003	DM	00830	P	State 352 EPA/Other U051
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
a) ST95-2084

K. Handling Codes for Wastes Listed Above
a. 14 b. c. d.

15. Special Handling Instructions and Additional Information

A) 14/07

EMERGENCY # 1-800-424-9300 CHEM-CHECK

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
LINDA M. ROBINSON	Linda M Robinson	09	26	95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JOHN RUCKER	John Rucker	09	26	95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. 2100

Printed/Typed Name	Signature	Month	Day	Year
BETTE SWEENEY	Bette Sweeney	09	28	95

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (9/94)
EPA 8700—22

GENERATOR
TRANSPORTER
FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

95382444

Koppers018493

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-96)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

95382444

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD021734359 — Manifest Document No. 82144 — 2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES INC. 7540 NW ST. HELENS ROAD PORTLAND, OREGON 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 95382444

B. State Generator's ID: EXEMPT

5. Transporter 1 Company Name: KVS Transportation — 6. US EPA ID Number: CAD982495608

C. State Transporter's ID: 615611

D. Transporter's Phone: 805-589-5220

7. Transporter 2 Company Name — 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: SOLVENT SERVICE CO. 1021 BERRYESSA RD. SAN JOSE, CA. 95133 — 10. US EPA ID Number: CAD059494310

G. State Facility's ID: CAD059494310

H. Facility's Phone: 408-451-5000

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, HAZARDOUS WASTE SOLID, NOS (CREOSOTE) (U051) 9 NA3077 III	093	DM	00830	P	State 352 / EPA/Other U051
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: a) ST95-2084

K. Handling Codes for Wastes Listed Above: a. — b. — c. — d.

15. Special Handling Instructions and Additional Information

EMERGENCY # 1-800-424-9300 CHEM-CHECK

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GENERATOR

Printed/Typed Name: LINDA M. ROBINSON — Signature: Linda M Robinson — Month 09 Day 26 Year 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: JOHN RUCKER — Signature: John Rucker — Month 09 Day 26 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Month Day Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (9/94)
EPA 8700—22

Yellow: GENERATOR RETAINS

Koppers018494

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-96)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

95382444

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD027734359 — Manifest Document No.: 82444
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: KOPPERS INDUSTRIES INC. 7540 NW ST. HELENS ROAD PORTLAND, OREGON 97210

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E. State Transporter's ID:

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9. Designated Facility Name and Site Address: SOLVENT SERVICE CO. 1021 BERRYESSA RD. SAN JOSE, CA. 95133

10. US EPA ID Number: CAD059494310

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H. Facility's Phone: 408-451-5000

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, HAZARDOUS WASTE SOLID, NOS (CREOSOTE) (U051) 9 NA3077 III	003	DM	00830	P	State 352; EPA/Other U051
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
a) SJ95-2034

K. Handling Codes for Wastes Listed Above
a. b.
c. d.

15. Special Handling Instructions and Additional Information

EMERGENCY # 1-800-424-9300 CHEM-CHECK

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
LINDA M. ROBINSON	Linda M. Robinson	09	26	95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JOHN RUCKER	John Rucker	09	26	95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (9/94)
EPA 8700—22

Blue: GENERATOR SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 400, Sacramento, CA 95812-0400

Koppers018495

LAIDLAW, INC
Environmental Services

WASTE PROFILE SHEET
WPS# SSI2126

SJ95-2034

09/22/95 08:11

Exhibit A to	Contract Date	Sample Reference #	PO #	Sales Representative
	/ /	NR		

I. GENERATOR INFORMATION

Customer Company Name KOPPERS INDUSTRIES INC	US EPA ID O R D 0 2 7 7 3 4 3 5 9
Generator Facility Address 7540 NW ST HELENS ROAD PORTLAND, OR 97210	State Generator ID Facility Contact/Title (generator) AMOS S KAMERER (503) 286-3681 FAX: (503) 285-2831
Generator Mailing Address 7540 NW ST HELENS ROAD PORTLAND, OR 97210	Technical Contact/Title (generator) FAX:
Invoice Directions	Broker, Contractor Invoice Contact/Title FAX: Standard Industry Code (SIC)

II. WASTE GENERATION INFORMATION

Waste Name
CREOSOTE CONTAMIN RAGS AND ABS

Process Producing Waste SPILL	Estimated rate of waste generation 3 DRUMS (YEARLY)

Waste generated from... [N] RCRA corrective [N] CERCLA site [N] Foreign source [Y] none of preceding
[N] Chemical manufacturing plant, Coke by-product recovery plant, or petroleum refinery?
[N] BENZENE subject to control requirements of 40 CFR Part 61 subpart FF (NESHAP)

III. WASTE CONSTITUENTS, CHARACTERISTICS AND PROPERTIES

Physical State
SOLID
[N] Contains Free Liquids?

pH Range
See Sec. IV

Waste Properties

[N] autopolymerizable	[N] infectious
[N] reactive	[N] explosive
[N] pyrophoric	[N] shock sensitive
[N] hydrophoric	[N] radioactive
[N] thermally sensitive	

Waste contains:

[N] biodegradable sorb	[N] cyanides
[N] fuming acids	[N] non-biodegradable sorb
[N] contaminated soil	[N] oxidizers
[N] asbestos	[N] contaminated debris
[N] PCBs	[N] dioxins
[N] strong odor	[N] sulfides

Waste Composition	Range
COAL TAR CREOSOTE	10 %
RAGS AND ABSORBANT MATERIAL (PADS AND GRANULES)	90 %
Total must equal at least 100 %	100 %

Physical Properties
Bulk density :
Color : BLACK/WHTE
Specific gravity :
Flash Point : NA
Normality :

Complete for Thermal Destruction (if applicable)

Heat Value (BTU/lb) :	to	Vapor Pressure (mmHG) :	@ STP	Total Chlorine :	to
Water Content (%) :	to	Viscosity :	@ °F	Total Fluoride :	to
Ash (%) :	to	Total Bromine :	to	Total Iodine :	to
				Total Sulfur :	to

LAIDLAW, INC
Environmental Services

WASTE PROFILE SHEET
WPS# SSI2126

SJ95-2034

IV. SPECIAL HANDLING, SAFETY OR OTHER ADDITIONAL INFORMATION

V. WASTE CODES

Applicable EPA listed waste codes (F,K,U or P)	State waste codes
U051	352

D-Code Characteristic Waste	Actual Range	Actual Range
*** NO "D" CODES LISTED ***		

VI. LAND DISPOSAL RESTRICTION STANDARDS

Federal:	State:
Does not meet any applicable standards	Does not meet any applicable standards

[N] HOC > 1000 mg/l [N] thallium > 130 mg/l [N] nickel > 134 mg/l

D001-D002 Wastes Potentially Regulated Under 40 CFR § 268.37
[?] Contains any constituents for which a treatment standard has been established in relation to F039
Constituents:
Based on: UNKNOWN
Describe:

Non Regulated Waste:

[N] Non-RCRA Regulations	[N] Conditionally Exmpt Small Quantity Generator
[N] Household Hazardous	[N] 100-1000 kg/mo generator

VII. STATE OF CALIFORNIA REGULATED METALS (RANGE IN PPM)

	Actual Range		Actual Range		Actual Range
[N] Antimony (Sb)	-	[N] Copper (Cu)	-	[N] Thallium (Tl)	-
[N] Beryllium (Be)	-	[N] Molybdenum (Mo)	-	[N] Vanadium (V)	-
[N] Cobalt (Co)	-	[N] Nickel (Ni)	-	[N] Zinc (Zn)	-

VIII. SHIPPING INFORMATION

Proper DOT Shipping Name
RQ HAZARDOUS WASTE SOLID N.O.S. (CREOSOTE)(U051)

DOT Haz Class	UN/NA #	Packing Group	Reportable Qty
9	NA3077	III	1

Container Type
DRUMS...

IX. CERTIFICATION STATEMENT

I certify that the information presented on this form and all attached forms is accurate and that all known or suspected hazards have been disclosed. The Waste Stream has been correctly characterized according to 40 CFR 262.11 and all applicable state regulations. A Representative Sample or lab pack inventory (as required) of this Waste Stream has been provided to USPCI. I am authorized by the above listed company or agency to make this certification. This waste does not contain any biological pathogenic, and/or etiological agents.

Signature	A S KAMERER / PLANT MANAGER	08/31/95
	Printed Name	Date

USPCI
A Subsidiary of Union Pacific Corporation

Form LDR N-1

Notification of Waste Subject to Land Disposal Restrictions

Manifest number associated with waste shipment: 95382444

Generator Name: Koppers Industries

☐ Supplemental Form LDR N-1a attached for listing additional codes.

Pursuant to 40 CFR 268.7 (a), I hereby notify that this waste shipment contains one or more of the following waste(s) restricted under the land disposal restrictions for which applicable treatment standards are set forth in 40 CFR § 268.40 or 42 USC § 6924(d).

EPA Hazardous Waste Numbers

1. F-Listed Solvents (check all that apply)
   - ☐ F001, F002, F003, F004, or F005 (Underlying constituents must be identified. Use Form LDR N-1b.)
   - ☐ F005 Containing 2-Nitropropane or 2-Ethoxyethanol
   - ☐ F001-F005 Containing carbon disulfide, cyclohexanone, methanol, or a combination of these constituents as the sole F001–5 regulated constituent.

Other Wastes

2.	List all D,F,K,U, or P Subcategory (if any) (eg. F006, D003)	Subcategory (if any)	✓ wastewater or non-wastewater WW	NWW	USPCI acceptance #	California List (✓ if applicable)	Reason California List applies (list of constituent properties below)
A	U051		☐	☒	SJ95-2034	☐	
B			☐	☐		☐	
C			☐	☐		☐	
D			☐	☐		☐	
E			☐	☐		☐	
F			☐	☐		☐	
G			☐	☐		☐	
H			☐	☐		☐	
I			☐	☐		☐	

Concentration			Treatment Standard
pH ≤ 2.0			Neutralize/Stabilize
Cyanides	≥	1,000	Cyanides Destruction/Stabilize
Arsenic	≥	500	Metals Recovery/Solidification
Cadmium	≥	100	Metals Recovery/Solidification
Chromium (VI)	≥	500	Metals Recovery/Solidification
Lead	≥	500	Metals Recovery/Solidification
Mercury	≥	20	Metals Recovery/Solidification
Nickel	≥	134	Metals Recovery/Solidification
Selenium	≥	100	Metals Recovery/Solidification
Thallium	≥	130	Metals Recovery/Solidification
PCBs	≥	50	Incineration/High Efficiency Boiler
Solid, sludge, or liquid w/HOCs	≥	1,000	Incineration/Carbon Adsorption/Solvent Extraction

NOTE: "Wastewater" means a waste containing less than 1% filterable solids and less than 1% T.O.C.

3. **Hazardous Debris Notification**
   ☐ This hazardous debris is subject to the alternative treatment standards of 40 CFR § 268.45.

Contaminants Subject to Treatment (please list waste codes applicable to the debris)													

FACILITY: Note that "Contaminants Subject to Treatment" are those constituents applicable to a waste code listed above for which a BDAT treatment standard is established in 40 CFR § 268.40, including underlying constituents where applicable.

4. **Underlying Constituents to be Monitored**
   - ☐ F039 (Constituents to be monitored must be indicated. Use Form LDR N-1b.)
   - ☐ F001-F005, D001 (other than residues from RORGS, or CMBST), D002, D012–D043 (Underlying constituents must be indicated. Use form LDR N-1b.)

   Defined: An underlying Constituent includes any constituent listed in § 268.48, Table UTS-Universal Treatment Standards, except zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the constituent specific UTS treatment standard.

5. **Deadline Extensions and Variances**
   Certain wastes may be subject to a deadline extension or variance (e.g., treatability variance, case-by-case extension). Describe below any extension that applies to a waste in this waste shipment (include dates and waste codes).

A.

NOTE: Hazardous wastes that exhibit the characteristic of toxicity based on the TCLP but do not exhibit EP toxicity are newly listed wastes.

Signature: [signature] Printed Name: A.S. KAMERER Date: 9/25/95

REV NOV 94 GENERATOR MUST RETAIN COPY FOR ...

Koppers018498

HAZARDOUS WASTE

STATE AND FEDERAL LAW PROHIBIT IMPROPER DISPOSAL.
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY, THE U.S. ENVIRONMENTAL PROTECTION AGENCY OR THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

GENERATOR INFORMATION:

NAME: KOPPERS INDUSTRIAL INC.

ADDRESS: 7540 N W ST. HELENS ROAD PHONE: 503-286-3681

CITY: PORTLAND STATE: OR ZIP: 97210

EPA ID NO. / MANIFEST DOCUMENT NO.: ORD027034359 / 82444

EPA WASTE NO.: U051 CA WASTE NO.: 352 ACCUMULATION START DATE: 7-28-95

CONTENTS, COMPOSITION: COAL TAR CREOSOTE, RAGS, ABSORBANT MATERIAL.

PHYSICAL STATE: ☒ SOLID ☐ LIQUID | HAZARDOUS PROPERTIES: ☐ FLAMMABLE ☒ TOXIC ☐ CORROSIVE ☐ REACTIVITY ☐ OTHER

RQ, HAZARDOUS WASTE SOLID, NOS (CREOSOTE, U051)
9 NA3077 III

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

HANDLE WITH CARE!

STYLE WMOA6

Printed by Labelmaster, An American Labelmark Co., Chicago, IL 60646 (800) 621-5808 Rev. 2/94

Koppers018499

FedEx USA Airbill

Tracking Number 698776938 6

FedEx Retrieval Copy

408 500 63550551 5241M

1 From

Date Sept. 22 Sender's FedEx Account Number 1257-9201-4

Sender's Name Betty Sweeney Phone 408 451-5000

Company US PCI/RAIDLAW ENV SERVICES Dept./Floor Suite/Room

Address 1040 COMMERCIAL ST STE 109

City SAN JOSE State CA Zip 95112

2 Your Internal Billing Reference Information

3 To

Recipient's Name Linda Robinson Phone 503 286-3681

Company Koppers Industrial Dept./Floor Suite/Room

Address (To "HOLD" at FedEx location, print FedEx address here) 7540 N.W. St. Helens Rd.

City Portland State OR Zip 97210

For "HOLD" Service check here

1 ☐ Weekday 31 ☐ Saturday (Not available at all locations) Monday AM.

For Saturday Delivery check here

3 ☐ (Extra Charge. Not available to all locations)

4 Service*

1 ☒ FedEx Priority Overnight (Next business morning)
5 ☐ FedEx Standard Overnight (Next business afternoon)
3 ☐ FedEx 2Day (Second business day)
4 ☐ FedEx Govt. Overnight (Authorized user only)
7 ☐ FedEx Overnight Freight
8 ☐ FedEx 2Day Freight
(For packages over 150 pounds. Call for delivery schedule.)

*Delivery commitment may be later in some areas.

5 Packaging

6 ☐ FedEx Letter* 2 ☒ FedEx Pak* 3 ☐ FedEx Box 4 ☐ FedEx Tube 1 ☐ Other Packaging

*Declared value limit $500.

6 Special Handling

Does this shipment contain dangerous goods? 1 ☒ No 4 ☐ Yes (As per attached Shipper's Declaration) ☐ Yes (Shipper's Declaration not required)

6 ☐ Dry Ice Dry Ice, 9, UN 1845 III ____ x ____ kg, 904 (Dangerous Goods Shipper's Declaration not required)

CA ☐ Cargo Aircraft Only

7 Payment

Bill to: 1 ☒ Sender (Account no. in section will be billed) 2 ☐ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check (Enter FedEx account no. or Credit Card no. below)

☐ Obtain Recipient FedEx Account No.

FedEx Account No. ____

Credit Card No. ____ Exp. Date ____

Total Packages	Total Weight	Total Declared Value*	Total Charges
1		$ 00	$

*When declaring a value higher than $100 per package, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

8 Release Signature

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

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Rev. Date 5/95 • PART #146162
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Koppers018500

FedEx. USA Airbill

Tracking Number 698776938 6

Recipient's Copy

408 500 63550551 5241M

1 From

Date Sept. 22

Sender's Name Betty Sweeney Phone 408 451-5000

Company US POLYMAIDLAW ENV SERVICES Dept./Floor Suite/Room

Address 1040 COMMERCIAL ST STE 109

City SAN JOSE State CA Zip 95112

2 Your Internal Billing Reference Information

3 To

Recipient's Name Linda Robinson Phone 503 286-3681

Company Koppers Industrial Dept./Floor Suite/Room

Address (To "HOLD" at FedEx location, print FedEx address here) 7540 N.W. St. Helens Rd.

City Portland State OR Zip 97210

For "HOLD" Service check here
☐ Weekday ☐ Saturday (Not available at all locations) Monday Am.

For Saturday Delivery check here
☐ (Extra Charge. Not available to all locations)

6 9 8 7 7 6 9 3 8 6

4 Service*

☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon) ☐ FedEx 2Day (Second business day)

☐ FedEx Govt. Overnight (Authorized user only)

☐ FedEx Overnight Freight ☐ FedEx 2Day Freight (For packages over 150 pounds. Call for delivery schedule.)

*Delivery commitment may be later in some areas.

5 Packaging

☐ FedEx Letter* ☒ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☐ Other Packaging

*Declared value limit $500.

6 Special Handling

Does this shipment contain dangerous goods? ☒ No ☐ Yes (As per attached Shipper's Declaration) ☐ Yes (Shipper's Declaration not required)

☐ Dry Ice, Dry Ice, 9, UN 1845 III ____ x ____ kg. 904 (Dangerous Goods Shipper's Declaration not required)

CA ☐ Cargo Aircraft Only

7 Payment

☐ Obtain Recipient FedEx Account No.

Bill to: ☒ Sender (Account no. in section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check (Enter FedEx account no. or Credit Card no. below)

Total Packages	Total Weight	Total Declared Value*	Total Charges
		$ .00	$

* When declaring a value higher than $100 per package, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

8 Release Signature

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and held harmless Federal Express from any resulting claims.

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Koppers018501

Terms And Conditions

Definitions On this airbill, we, our and us refer to Federal Express Corporation, its employees, and agents. You and your refer to the sender, its employees, and agents.

Agreement To Terms By giving us your package to deliver, you agree to all the terms in our current Service Guide, which is available on request. You also agree to those terms on behalf of any third party with an interest in the package. If there is a conflict between the Service Guide and this Airbill, the Service Guide will control. No one is authorized to change the terms of our Agreement.

Responsibility For Packaging And Completing Airbill You are responsible for adequately packaging your goods and properly filling out this airbill. If you omit the number of packages and/or weight per package, our billing will be based on our best estimate of the number of packages we received and/or an estimated "default" weight per package as determined by us.

Responsibility For Payment Even if you give us different payment instructions, you will always be primarily responsible for all delivery costs, as well as any cost we incur in either returning your package to you or warehousing it pending disposition.

Limitations On Our Liability And Liabilities Not Assumed

- Our liability for loss or damage to your package is limited to your actual damage or $100, unless you declare a higher value, pay an additional charge, and document your actual loss in a timely manner. You may pay an additional charge for each additional $100 of declared value. The declared value does not constitute, nor do we provide cargo liability insurance.
- In any event, we will not be liable for any damage, whether direct, incidental, special, or consequential in excess of the declared value of a shipment, whether or not Federal Express had knowledge that such damages might be incurred including but not limited to loss of income or profits.
- We won't be liable:
  - for your acts or omissions including but not limited to improper or insufficient packing, securing, marking, or addressing or those of the recipient or anyone else with an interest in the package
  - if you or the recipient violate any of the terms of an Agreement
  - for loss or damage to shipments of prohibited items
  - for loss, damage, or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, acts of public enemies, war strikes, civil commotions, or acts of public authorities with actual or apparent authority.

Declared Value Limits

- The highest declared value allowed for FedEx Letter and FedEx Pak shipments is $500.
- For other shipments, the highest declared value allowed is $50,000 unless your package contains items of "extraordinary value," in which case the highest declared value allowed is $500.
- Items of "extraordinary value" include shipments containing such items as artwork, jewelry, furs, precious metals, negotiable instruments, and other items listed in our Service Guide.
- You may send more than one package on this airbill and fill in the total declared value for all packages, not to exceed the $100, $500 or $50,000 per package limit described above. (Example: 5 packages can have a total declared value of up to $250,000.) In that case, our liability is limited to the actual value of the package(s) lost or damaged, but may not exceed the maximum allowable declared value(s) or the total declared value, whichever is less. You are responsible for proving the actual loss or damage.

Filing A Claim YOU MUST MAKE ALL CLAIMS IN WRITING and notify us of your claim within strict time limits set out in the current Service Guide.

We'll consider your claim filed if you notify our Customer Service Department at 1•800•Go•FedEx and make your claim in writing as soon as possible.

Within 90 days after you notify us of your claim, you must send us all the information you have about it. We aren't obligated to act on any claim until you have paid all transportation charges, and you may not deduct the amount of your claim from those charges.

If the recipient accepts your package without noting any damage on the delivery record, we will assume the package was delivered in good condition. For us to process your claim, you must make the original shipping cartons and packing available for inspection.

Right To Inspect We may at our option open and inspect your packages before or after you give them to us to deliver.

Right Of Rejection We reserve the right to reject a shipment when such shipment would be likely to cause delay or damage to other shipments, equipment, or personnel or if its shipment is prohibited by law; or if the shipment would violate any terms of our Agreement or our current Service Guide.

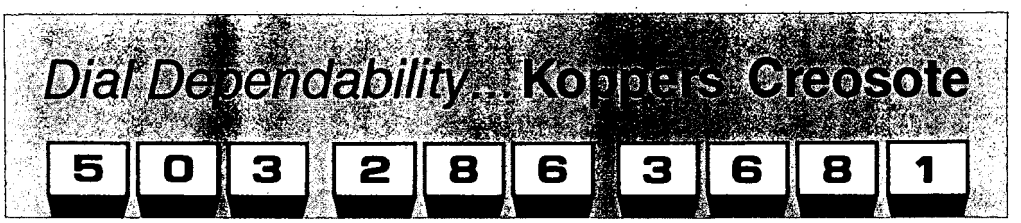
C.O.D. Services C.O.D. SERVICE IS NOT AVAILABLE WITH THIS AIRBILL. If C.O.D. Service is required, please use a Federal Express C.O.D. airbill.

Air Transportation Tax Included Our basic rate includes a federal tax required by Internal Revenue Code Section 4271 on the air transportation portion of this service.

Money-Back Guarantee In the event of untimely delivery, Federal Express will at your request and with some limitations, refund or credit all transportation charges. See current Service Guide for more information.

Part #146162/146163
Rev. 5/95

Koppers018502



Dial Dependability... Koppers Creosote

5 0 3 2 8 6 3 6 8 1

Betty - 9/21

Mike Proctor - Laidlaw

#408-451-5000

Haz drums for disposal

Trucker KVS may be picking up

our material tomorrow PM

if so, Mike will fed Ex all the

paper work

once received if any questions, call Mike

They will pick up Monday. They're 9/22/95

Fed Ex papers for 9/27/95 am deliver.

Koppers Company, Inc. • Tar and Wood Products Sector • 1601 Koppers Building • Pittsburgh, PA 15219

LAIDLAW ENVIRONMENTAL SERVICES

NAME OF WASTE STREAM: Creosote Contaminated Rags and Absorbents

MATERIAL PROFILE NO:

☐ New ☐ Amendment

A. GENERATOR INFORMATION

Generator Name: Koppers Industries, Inc.
Facility Address: 7540 NW St. Helens Road
City/County: Portland/Multnomah
State: OR Zip Code: 97210
USEPA ID#: ORD 027734359
State ID#:

Technical Contact: Amos S. Kamerer
Telephone: 503: 286-3681 EXT.
Fax: 503 285-2831
Billing Name: same
Billing Address: same
City: same State: Zip Code:
Attention: Amos S. Kamerer
Telephone: 503: 286-3681 EXT.

B. DOT

Shipping Name: Coal Tar Creosote
Hazard Class:
UN/NA No.: 3082 Packing Group: III RQ: 1 pound

C. RCRA

RCRA Non Hazardous/Exempt? ☐ Yes ☒ No Process Generating: spill
State Waste Codes: 352 EPA Waste Codes: U051

D. ANNUAL REPORT CODES

SIC Code: 2865
Source Code: A
Form Code: 9
Origin Code:
System Type: M

E. OTHER COMPONENTS

	No	Yes	Total ppm
PCB's	☒	☐	
Cyanides	☒	☐	
Sulfides	☒	☐	
Pesticides	☒	☐	
Phenolics	☒	☐	
Dioxins	☒	☐	
Halogens	☒	☐	%

F. PHYSICAL CHARACTERISTICS AT 70° F

1. Infectious or Biological Waste? ☐ Yes ☒ No
2. NRC Regulated Radioactive? ☐ Yes ☒ No
3. Reactivity ☒ None ☐ Water Reactive ☐ Pyrophoric ☐ Shock Sensitive ☐ Cyanides ☐ DOT Explosive ☐ Sulfides ☐ Other

Weight
Density lbs./gal. (US. liq) 2.43 lbs. cu. foot
Dry Weight ☒ <1.0% ☐ 5-20% ☐ 1-5% ☐ 20-100%

pH ☒ N/A
☐ 0-2 ☐ 4.1-10 ☐ ≥ 12.5
☐ 2.1-4 ☐ 10.1-12.4 Exact

Flash Point (liquid only)
☐ <73°F (23°C) ☐ 73-140°F (23-60°C) ☐ 142-200°F (61-93°C) ☐ >200°F (93°C) ☒ N/A

Boiling Point
☐ <95°F (35°C) ☐ >95°F (35°C) ☒ N/A

BTU/Lb. unknown

Dermal Toxicity LD_{50} (Mg/Kg)
☐ ≤40 ☐ >200, ≤1000 ☐ >40, ≤200 ☐ >1000
4. Material poisonous by inhalation? ☐ Yes ☒ No

Oral Toxicity LD_{50} (Mg/Kg)

Solids:	☐ ≤5	☐ >5, ≤50	
	☐ >50, ≤200	☐ >200	
Liquids:	☐ >50, ≤500	☐ >500	

☐ Gas (Cylinder) ☒ Solid 100 %
☐ Aerosol ☐ Sludges %
☐ Lab-Pack ☐ Free Liquids %
100%

Layers: ☐ Single Layered ☐ Bi-layered ☒ Multi-layered

Viscosity: ☒ Low ☐ Medium ☐ High

Odor: ☐ None ☒ Mild ☐ Strong Describe:

Color/Appearance: black & white

5. Is this waste stored in vented drums? ☐ Yes ☒ No
6. Is this waste pumpable? ☐ Yes ☒ No
7. Is this waste polymerizable? ☐ Yes ☒ No
8. Is waste stream subject to the National Emission Standards for Benzene Waste Operations (40 CFR 61 Subpart FF)? ☐ Yes ☒ No
9. Is this waste regulated as an ozone depleting substance (40 CFR part 82)? ☐ Yes ☒ No
10. Does this waste contain scrap metal pieces greater than 2 inches in size? ☐ Yes ☒ No

G. METALS

☒ NONE ☐ TCLP (MG/L) ☐ TOTAL (PPM)

	Reg. Limit	Below	Above	Range
Arsenic	5 mg/L			
Barium	100 mg/L			
Cadmium	1 mg/L			
Chromium	5 mg/L			
Copper				
Lead	5 mg/L			
Mercury	0.2 mg/L			
Nickel	134 mg/L			
Selenium	1 mg/L			
Silver	5 mg/L			
Zinc				
Others:				

based on historical data

H. PHYSICAL-CHEMICAL CONSTITUENTS

Coal Tar Creosote	10%
Rags and Absorbent Materials	%
(Pads & Granules)	90%
	%
	%
	%
	%
	%
	%
	%
	%
	%
	100 %

(Attach All MSDS, Sample Analysis and Additional Info.)

I. ANTICIPATED VOLUME

Qty.	Container	Qty.	Container
☐	5 gl. pail	☐	Cubic Yard Box*
☐	15 gl. carboy	☐	Super Sack*
☐	30 gl. drum	☐	Rolloff/Dump Trailer*
☒ 3	55 gl. drum	☐	Tanker*
☐	85 gl. drum	☐	Other

Per ☐ 1 Time ☐ Week ☐ Month ☐ Year ☒ Other as produced
last disposal was 5/93

(*) Is this waste regulated as a Marine Pollutant (49 CFR 171.8)? ☐ Yes ☐ No

Generator's Certification:
I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature: Date 8/31/95

A. S. Kamerer, Plant Manager

Koppers018504

INSTRUCTIONS

The following information is required for all waste to be considered for transportation, storage, treatment or disposal. Answers must not be abbreviated, must be printed in ink, and will be maintained in confidence. Responses of "none" or "not applicable" should be made when appropriate. Material Safety Data Sheets for components of the waste should accompany this form, if available. A copy of this form should be retained by the customer.

ALL QUESTIONS MUST BE ANSWERED

Part A GENERAL INFORMATION

Part B DOT — Choose the most appropriate DOT shipping information by referring to 49 CFR 172.101.

Part C RCRA — Select applicable EPA waste codes by referencing 40 CFR 261.

Part D ANNUAL REPORT CODES —Obtain these codes from the EPA Hazardous Waste Report Booklet.

Part E OTHER COMPONENTS — Check the appropriate boxes and list the total parts per million. If data was obtained from laboratory analysis, attach a copy of the analysis.

Part F PHYSICAL CHARACTERISTICS AT 70 DEGREES F — Complete all sections. The flash point is a value attained using the appropriate test method referenced in 40 CFR 261.21. Dermal and oral toxicity can be found in chemical dictionaries or by referring to the Material Safety Data Sheet.

Part G METALS — Indicate if the metal concentrations are represented as total or leachable metals, and whether they are above or below the regulatory lir as defined by the Extraction Procedure contained in 40 CFR, Appendix II.

Part H PHYSICAL/CHEMICAL CONSTITUENTS — List all components of the waste using specific chemical names, including water, earth, or forms of deb For each component, indicate the expected percent or other unit of measure in which the component is present. The constituents must total 100%.

Part I ANTICIPATED VOLUME — Enter the total volume to be treated, stored, or disposed.

Generator Certification: Must be signed by an authorized management representative of the company generating the waste stream described on this form.

#	Questions Specific Only to Waste Managed at LES Facilities in California	Yes	No
1	Is this waste derived from or is it contaminated with a petroleum derived fuel or lubricant?		X
2	Does the waste contain any organic chemicals (e.g. solvents, herbicides, pesticides) above the TCLP "characteristic" threshold values specified in 40 CFR §261.24? (If yes, analysis required)		X
3	Does the waste contain any organic chemicals (e.g. solvents, herbicides, pesticides) above the STLC/TTLC "characteristic" threshold values specified in 22 CCR §66261.24? (If yes, analysis required)		X
4	Does the waste contain any toxic metals (e.g. lead, chrome, cadmium, etc.) above the TCLP "characteristic" threshold values specified in 40 CFR §261.24? (If yes, analysis required)		X
5	Does the waste contain any toxic metals (e.g. lead, chrome, cadmium, etc.) above the STLC/TTLC "characteristic" threshold values specified in 22 CCR §66261.24? (If yes, analysis required)		X
6	Does this waste contain Organic Lead (e.g. tetraethyl lead) at a concentration greater than 100 ppm?		X
7	Is this waste toxic to fish as defined by the Title 22 CCR §66261.24(a)(6) "96-hour Aquatic Toxicity test"?	X	
8	Is the waste considered "Extremely Hazardous" (EH) in California under 22 CCR §66261.110?		X
9	Does this waste contain any of the carcinogenic compounds (singularly or combined) at a concentration above 1,000.0 ppm making it a California regulated hazardous waste under 22 CCR §66261.24(a)(7)?		X
10	Has this waste been specifically classified by the State of California DTSC as a hazardous waste because it *"... has been shown through experience or testing to post a hazard to human health or the environment because of its carcinogenicity, acute toxicity, bioaccumulative properties or persistence in the environment"* as per 22 CCR §66261.24(a)(8) (e.g. ash high in silica from rice hull burning)?		X
11	Is (was) the waste a wastewater that is not in itself a listed RCRA waste (F or K), but by treating the wastewater would create a sludge that is a RCRA listed waste (e.g. F037, K048, etc.)?	X	
12	Does this waste contain any biodegradable sorbents as described in 40 CFR 264.312?		X
13	If this waste is classified as a D001 or D002 RCRA waste or if this waste was a D001 or D002 RCRA waste that was treated by deactivation, does it contain any of the chemical constituents above the regulatory thresholds specified for F039 in 40 CFR 268.37?		X

FOR LAIDLAW ENVIRONMENTAL SERVICES USE ONLY

Sample Submitted ☐ Yes ☐ No No. of Samples _____ Chain of Custody ☐ Yes ☐ No Sample No. _____

Laidlaw Approval

☐ Approved ☐ Disapproved Approval # _____ Annual Analysis Date _____

Operations _____ Date _____

Comments _____

Land Disposal Restrictions

☐ Unrestricted ☐ Restricted Category _____ Sub Category _____

Variance Date _____ Treatability Group: ☐ WW ☐ NWW Treatment Technology _____

Legend No. _____ 40 CFR Ref.. ☐ 268.41 COWE ☐ 268.42 Table 2 ☐ 268.43 CCW

Routing

TSD #1 _____ TSD #2 _____

Outgoing Approval # _____ Outgoing Approval # _____

Handling Codes _____ Handling Codes _____

Cost Codes _____ Cost Codes _____

Health and Safety

Special Handling Instructions _____

Sales

Koppers018505

ORD 027734359

SOLVENT.SERVICE-LAB 8188887621 P.02

U051 Land Ban Material

LAIDLAW ENVIRONMENTAL SERVICES

NAME OF WASTE STREAM: Creosote Contaminated Rags & Absorbents

MATERIAL PROFILE NO:

☐ New ☐ Amendment

A. GENERATOR INFORMATION

Generator Name: Koppers Industries Inc.
Facility Address: 7540 NW St Helens Rd
City/County: Portland / Multnomah
State: OR Zip Code: 97210
USEPA ID#: ORD 027734359
State ID#:

Technical Contact: AMOS S. KAMERER
Telephone (503): 286-3681 EXT.
Fax (503): 285-2831
Billing Name: SAME
Billing Address: "
City: " State: Zip Code:
Attention: "
Telephone (503): 286-3681 EXT.

$850; 350 CA = 2.43 #/CA

B. DOT

Shipping Name: COAL TAR CREOSOTE
Hazard Class: 9
UN/NA No.: 3082 Packing Group: III RQ: 1 pound

C. RCRA

RCRA Non Hazardous/Exempt? ☐ Yes ☒ No Process Generating: Spill
State Waste Codes: EPA Waste Codes: U051

D. ANNUAL REPORT CODES

SIC Code: 2865
Source Code: A
Form Code: B
Origin Code:
System Type: M

E. OTHER COMPONENTS

	No	Yes	Total ppm
PCB's	☒	☐	
Cyanides	☒	☐	
Sulfides	☒	☐	
Pesticides	☒	☐	
Phenolics	☒	☐	
Dioxins	☒	☐	
Halogens	☒	☐	%

Drums 55 GA @ 1167 CA/Drum = 3 Drums - Total 850 #

F. PHYSICAL CHARACTERISTICS AT 70° F

1. Infectious or Biological Waste? ☐ Yes ☒ No
2. NRC Regulated Radioactive? ☐ Yes ☒ No
3. Reactivity ☒ None ☐ Water Reactive ☐ Pyrophoric ☐ Shock Sensitive ☐ Cyanides ☐ DOT Explosive ☐ Sulfides ☐ Other

☐ Gas (Cylinder) ☐ Solid 100 %
☐ Aerosol ☐ Sludges %
☐ Lab-Pack ☐ Free Liquids %
100%

Layers: ☐ Single Layered ☐ Bi-layered ☒ Multi-layered

Viscosity: ☒ Low ☐ Medium ☐ High

Odor: ☐ None ☒ Mild ☐ Strong Describe:

Color/Appearance: Black & white

Weight
Density lbs./gal. (US. liq) 2.43 lbs./cu. foot
Dry Weight ☒ <1.0% ☐ 5-20% ☐ 1-5% ☐ 20-100%

pH ☒ N/A ☐ 0-2 ☐ 4.1-10 ☐ ≥ 12.5 ☐ 2.1-4 ☐ 10.1-12.4 Exact

Flash Point (liquid only)
☐ <73°F (23°C)
☐ 73-140°F (23-60°C)
☐ 142-200°F (61-93°C)
☐ >200°F (93°C)
☒ N/A

Boiling Point
☐ <95°F (35°C)
☐ >95°F (35°C)
☒ N/A

BTU/Lb. UNKNOWN

Dermal Toxicity LD_{50} (Mg/Kg)
☐ ≤40 ☐ >200, ≤1000
☐ >40, ≤200 ☐ >1000
4. Material poisonous by inhalation? ☐ Yes ☒ No

Oral Toxicity LD_{50} (Mg/Kg)

Solids:	☐ ≤5	☐ >5, ≤50	
	☐ >50, ≤200	☐ >200	
Liquids:	☐ >50, ≤500	☐ >500	

5. Is this waste stored in vented drums? ☐ Yes ☒ No
6. Is this waste pumpable? ☐ Yes ☒ No
7. Is this waste polymerizable? ☐ Yes ☒ No
8. Is waste stream subject to the National Emission Standards for Benzene Waste Operations (40 CFR 61 Subpart FF)? ☐ Yes ☒ No
9. Is this waste regulated as an ozone depleting substance (40 CFR part 82)? ☐ Yes ☒ No
10. Does this waste contain scrap metal pieces greater than 2 inches in size? ☐ Yes ☒ No

G. METALS

☒ NONE ☐ TCLP (MG/L) ☐ TOTAL (PPM)

	Reg. Limit	Below	Above	Range
Arsenic	5 mg/L	☐	☐	
Barium	100 mg/L	☐	☐	
Cadmium	1 mg/L	☐	☐	
Chromium	5 mg/L	☐	☐	
Copper		☐	☐	
Lead	5 mg/L	☐	☐	
Mercury	0.2 mg/L	☐	☐	
Nickel	134 mg/L	☐	☐	
Selenium	1 mg/L	☐	☐	
Silver	5 mg/L	☐	☐	
Zinc		☐	☐	
Others:		☐	☐	

based on Historical Data

H. PHYSICAL/CHEMICAL CONSTITUENTS

COAL TAR CREOSOTE	10 %
RAGS AND ABSORBENT	%
MATERIALS (PADS & GRANULES)	90 %
	%
	%
	%
	%
	%
	%
	%
	%
	100 %

(Attach All MSDS, Sample Analysis and Additional Info.)

I. ANTICIPATED VOLUME

Qty.	Container	Qty.	Container
☐	5 gl. pail	☐	Cubic Yard Box*
☐	15 gl. carboy	☐	Super Sack*
☐	30 gl. drum	☐	Rolloff/Dump Trailer*
☒ 3	55 gl. drum	☐	Tanker*
☐	85 gl. drum	☐	Other

Per ☐ 1 Time ☐ Week ☐ Month ☐ Year ☒ Other As produced

Last disposal was 5/93

(*) Is this waste regulated as a Marine Pollutant (49 CFR 171.8)? ☐ Yes ☐ No

Generator's Certification:
I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator's Authorized Signature: A.S. KAMERER Date

Koppers018506

INSTRUCTIONS

The following information is required for all waste to be considered for transportation, storage, treatment or disposal. Answers must not be abbreviated, must be printed in ink, and will be maintained in confidence. Responses of "none" or "not applicable" should be made when appropriate. Material Safety Data Sheets for components of the waste should accompany this form, if available. A copy of this form should be retained by the customer.

ALL QUESTIONS MUST BE ANSWERED

Part A GENERAL INFORMATION

Part B DOT — Choose the most appropriate DOT shipping information by referring to 49 CFR 172.101.

Part C RCRA — Select applicable EPA waste codes by referencing 40 CFR 261.

Part D ANNUAL REPORT CODES —Obtain these codes from the EPA Hazardous Waste Report Booklet.

Part E OTHER COMPONENTS — Check the appropriate boxes and list the total parts per million. If data was obtained from laboratory analysis, attach a copy of the analysis.

Part F PHYSICAL CHARACTERISTICS AT 70 DEGREES F — Complete all sections. The flash point is a value attained using the appropriate test method referenced in 40 CFR 261.21. Dermal and oral toxicity can be found in chemical dictionaries or by referring to the Material Safety Data Sheet.

Part G METALS — Indicate if the metal concentrations are represented as total or leachable metals, and whether they are above or below the regulatory limit as defined by the Extraction Procedure contained in 40 CFR, Appendix II.

Part H PHYSICAL/CHEMICAL CONSTITUENTS — List all components of the waste using specific chemical names, including water, earth, or forms of debris. For each component, indicate the expected percent or other unit of measure in which the component is present. The constituents must total 100%.

Part I ANTICIPATED VOLUME — Enter the total volume to be treated, stored, or disposed.

Generator Certification: Must be signed by an authorized management representative of the company generating the waste stream described on this form.

#	Questions Specific Only to Waste Managed at LES Facilities in California	Yes	No
1	Is this waste derived from or is it contaminated with a petroleum derived fuel or lubricant?		X
2	Does the waste contain any organic chemicals (e.g. solvents, herbicides, pesticides) above the TCLP "characteristic" threshold values specified in 40 CFR §261.24? (If yes, analysis required)		X
3	Does the waste contain any organic chemicals (e.g. solvents, herbicides, pesticides) above the STLC/TTLC "characteristic" threshold values specified in 22 CCR §66261.24? (If yes, analysis required)		X
4	Does the waste contain any toxic metals (e.g. lead, chrome, cadmium, etc.) above the TCLP "characteristic" threshold values specified in 40 CFR §261.24? (If yes, analysis required)		X
5	Does the waste contain any toxic metals (e.g. lead, chrome, cadmium, etc.) above the STLC/TTLC "characteristic" threshold values specified in 22 CCR §66261.24? (If yes, analysis required)		X
6	Does this waste contain Organic Lead (e.g. tetraethyl lead) at a concentration greater than 100 ppm?		X
7	Is this waste toxic to fish as defined by the Title 22 CCR §66261.24(a)(6) "96-hour Aquatic Toxicity test"?	X	
8	Is the waste considered "Extremely Hazardous" (EH) in California under 22 CCR §66261.110?		X
9	Does this waste contain any of the carcinogenic compounds (singularly or combined) at a concentration above 1,000.0 ppm making it a California regulated hazardous waste under 22 CCR §66261.24(a)(7)?		X
10	Has this waste been specifically classified by the State of California DTSC as a hazardous waste because it "... *has been shown through experience or testing to post a hazard to human health or the environment because of its carcinogenicity, acute toxicity, bioaccumulative properties or persistence in the environment*" as per 22 CCR §66261.24(a)(8) (e.g. ash high in silica from rice hull burning)?		X
11	Is (was) the waste a wastewater that is not in itself a listed RCRA waste (F or K), but by treating the wastewater would create a sludge that is a RCRA listed waste (e.g. F037, K048, etc.)?	X	
12	Does this waste contain any biodegradable sorbents as described in 40 CFR 264.312?		X
13	If this waste is classified as a D001 or D002 RCRA waste or if this waste was a D001 or D002 RCRA waste that was treated by deactivation, does it contain any of the chemical constituents above the regulatory thresholds specified for F039 in 40 CFR 268.37?		X

FOR LAIDLAW ENVIRONMENTAL SERVICES USE ONLY

Sample Submitted ☐ Yes ☐ No No. of Samples _____ Chain of Custody ☐ Yes ☐ No Sample No. _____

Laidlaw Approval

☐ Approved ☐ Disapproved Approval # _____ Annual Analysis Date _____

Operations _____ Date _____

Comments _____

Land Disposal Restrictions

☐ Unrestricted ☐ Restricted Category _____ Sub Category _____

Variance Date _____ Treatability Group: ☐ WW ☐ NWW Treatment Technology _____

Legend No. _____ 40 CFR Ref.: ☐ 268.41 CCWE ☐ 268.42 Table 2 ☐ 268.43 CCW

Routing

TSD #1 _____ TSD #2 _____

Outgoing Approval # _____ Outgoing Approval # _____

Handling Codes _____ Handling Codes _____

Cost Codes _____ Cost Codes _____

Health and Safety

Special Handling Instructions _____

Sales

MATERIALS CHARACTERIZATION DATA SHEET

For Customer Use:
Reference No.:

MARINE SHALE PROCESSORS, INC.
110 JAMES DRIVE WEST SUITE 120 SAINT ROSE, LA 70087 (504) 465-3310

FOR MSP USE ONLY
Approval Code

A. GENERATOR INFORMATION

GENERATOR NAME Koppers Co INC
SITE ADDRESS 7457 N.W ST. HELENS RD.
CITY PORTLAND STATE OR ZIP CODE 97210
GENERATOR CONTACT JOHN DEAN
TITLE TERMINAL MANAGER
TELEPHONE NO. (503) 274-3681
FACILITY EPA I.D. NO. ORD 027 734 359

B. CUSTOMER INFORMATION

COMPANY NAME Laidlaw Environmental Services
ADDRESS 4501 Pacheco Blvd,
CITY Martinez STATE CA ZIP CODE 94553
CUSTOMER CONTACT
TITLE
TELEPHONE NO. (510 372-4800

C. CHEMICAL COMPOSITION AND REGULATORY INFORMATION

(NO TRADE NAMES - RANGES MUST NOT EXCEED 20%. TOTAL IN MAXIMUM COLUMN MUST BE GREATER THAN OR EQUAL TO 100%.)

	MIN	MAX
Creosote Contaminated Soil & Debris		
Creosote	5 %	30 %
Soil	80 %	95 %

WASTE FORM CODE: B 3 1 9
COMMON NAME OF MATERIAL: Creosote Sp. Clean up

GENERATING PROCESS: Soil Clean up project from material spill.

[ ] NON-REGULATED [ ] RCRA REGULATED [ ] LAND BAN EPA CODE(S): U051
HAS A REPRESENTATIVE SAMPLE BEEN SENT TO MSP? [ ] YES [X] NO

D. PHYSICAL AND CHEMICAL PROPERTIES

TCLP (Mg/l) INDICATE ACTUAL VALUE OR "0".

D004 Arsenic (5.0)	0.22	D029 1,1,-Dichloroethylene (0.7)	0	D011 Silver (5.0)	0.13
D005 Barium (100.0)	02.1	D030 2,4-Dinitrotoluene (0.13)	0	D039 Tetrachloroethylene (0.7)	0
D018 Benzene (0.5)	0	D012 Endrin (0.02)	0	D015 Toxaphene (0.5)	0
D006 Cadmium (1.0)	.09	D031 Heptachlor (0.008)	0	D040 Trichloroethylene (0.5)	0
D019 Carbon Tetrachloride (0.5)	0	D032 Hexachlorobenzene (0.13)	0	D041 2,4,5-Trichlorophenol (400.0)	0
D020 Chlordane (0.03)	.0	D033 Hexachlorobutadiene (0.5)	0	D042 2,4,6-Trichlorophenol (2.0)	0
D021 Chlorobenzene (100.0)	0	D034 Hexachloroethane (3.0)	0	D017 2,4,5-TP Silvex (1.0)	0
D022 Chloroform (6.0)	0	D008 Lead (5.0)	0.16	D043 Vinyl Chloride (0.2)	0
D007 Chromium (5.0)	0	D013 Lindane (0.4)	0	INDICATE ACTUAL PPM:	
D023 o-Cresol (200.0)	0.43	D009 Mercury (0.2)	.005	Nickel	24 ppm
D024 m-Cresol (200.0)	0	D014 Methoxychlor (10.0)	0	Thallium	0
D025 p-Cresol (200.0)	0	D035 Methyl Ethyl Ketone (200.0)	0	Beryllium	0
D026 Cresol (200.0)	0	D036 Nitrobenzene (2.0)	0	PCB	0
D016 2,4-D (10.0)	0	D037 Pentachlorophenol (100.0)	0	Cyanide	0
D027 1,4-Dichlorobenzene (7.5)	0	D038 Pyridine (5.0)	0	Sulfide	0
D028 1,2-Dichloroethane (0.5)	0	D010 Selenium (1.0)	0.11	Dioxin	0

BTU's per pound ≤ 5000
ASH (Weight %) 42 %
FLASH POINT (C.C.) > 200° °F
BOILING POINT °F
pH: Actual 6.5 Organic Solid
SPECIFIC GRAVITY 1.07 - 1.09
VISCOSITY (SSU) 100

FOR BULK LIQUIDS ONLY:
TOTAL SUSPENDED SOLIDS
(WEIGHT %) N/A

WEIGHT %	<1	1-5	5-10	>10 (actual)
IODINE	X	[ ]	[ ]	
BROMINE	X	[ ]	[ ]	
CHLORINE	[ ]	[ ]	[ ]	
FLUORINE	X	[ ]	[ ]	
PHOSPHORUS	X	[ ]	[ ]	
SULFUR	X	[ ]	[ ]	
WATER	X	[ ]	[ ]	

COLOR:

PHYSICAL STATE:
[ ] LIQUID [X] SOLID
[ ] SLUDGE [ ] POWDER

PHASES: [X] SINGLE LAYER
[ ] MULTI-LAYER

ODOR: [ ] NONE [ ] MILD [X] STRONG

SOLIDS (Weight %) 70

E. SPECIFIC CHARACTERISTICS

IS THE MATERIAL:

RADIOACTIVE	[ ] YES	[X] NO	INFECTIOUS?	[ ] YES	[X] NO
WATER REACTIVE?	[ ] YES	[X] NO	POLYMERIZABLE?	[ ] YES	[X] NO
PYROPHORIC?	[ ] YES	[X] NO	EXPLOSIVE?	[ ] YES	[X] NO

F. SYSTEM TYPE CODE

CHOOSE ONLY ONE SYSTEM TYPE CODE THAT BEST DESCRIBES MSP'S RECYCLING SYSTEM FOR THIS MATERIAL STREAM.

[ ] **M051** ENERGY RECOVERY - LIQUIDS WITH 5,000 OR MORE BTU/LB.
[ ] **M052** ENERGY RECOVERY - SLUDGES WITH 5,000 OR MORE BTU/LB.
[ ] **M053** ENERGY RECOVERY - SOLIDS WITH 5,000 OR MORE BTU/LB.
[X] **M032** OTHER RECOVERY - USE AS INGREDIENT/FUEL IN AGGREGATE MANUFACTURING PROCESS.

G. ADDITIONAL INFORMATION, SPECIAL HANDLING INSTRUCTIONS OR NOTES

DOES THIS WASTE CONTAIN OSHA CARCINOGENS? [ ] YES [X] NO

IF YES, SPECIFY BY NAME(S) AND AMOUNT(S) IN PPM. _____

OTHER INFORMATION: _____

H. REQUIRED PROTECTIVE EQUIPMENT AND PROCEDURES

PLEASE ATTACH MSDS, LOGISTIC SKETCHES, ANALYSIS REPORTS, HANDLING PRECAUTIONS, ADDITIONAL HAZARDOUS SUPPORT INFORMATION, DATA AND COMMENTS.

I. SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL: [X] YES [ ] NO DOT HAZARD CODE [ ] UN
HAZARD CLASS: CRM-E RQ (#) 1 lb. [X] NA 9139

PROPER SHIPPING NAME: HAZARDOUS WASTE SOLID N.O.S.

PROJECTED VOLUME: 5-30 DRUMS GAL YDS LBS [ ] BULK? [ ] RAIL?

CONTAINER SIZE (Gal.): 55 gal CONTAINER TYPE: [ ] FIBER [ ] POLY [X] STEEL [ ] OTHER:

FREQUENCY: [ ] ONE TIME ONLY [ ] WEEKLY [X] MONTHLY [ ] QUARTERLY [ ] YEARLY [ ] OTHER:

J. CERTIFICATION

I hereby certify that the above attached description is complete and accurate to the best of my knowledge and ability to determine, that no deliberate or willful omission of composition or properties exist, and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this Materials Characterization Data Sheet.

1. John A Oxford
Generator's Signature

2. JOHN A OXFORD
Name (Type or Print)

3. 10-19-92
Date

4. Plant Mgr.
Title

K. RECERTIFICATION REQUIREMENTS

This Materials Characterization Data Sheet must be recertified (i.e. updated) twelve months from the date signed and thereafter recertified on an annual basis. In addition, if the characteristics of the material change or if the generating process changes, a new MCDS must be submitted for approval prior to shipment.

Koppers018509

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

92713957

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORO02773435 | Manifest Document No. 13951 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Koppers Company, 7540 NW St. Helens Rd, Portland, OR 97210

4. Generator's Phone: (503) 286-3681

A. State Manifest Document Number: 92713957

B. State Generator's ID: H AH036-046811

5. Transporter 1 Company Name: K/S Transportation | 6. US EPA ID Number: CAD982495608 | C. State Transporter's ID: 312388 | D. Transporter's Phone: 805-569-5220

7. Transporter 2 Company Name: Laidlaw Environmental Services of CA | 8. US EPA ID Number: CAA000083121 | E. State Transporter's ID | F. Transporter's Phone: (510) 372-4800

9. Designated Facility Name and Site Address: Laidlaw Environmental Services (Imperial Valley), 5295 S. Garvey Rd, Westmorland, CA 92281 | 10. US EPA ID Number: CAA000063164 | G. State Facility's ID: CAD000633164 | H. Facility's Phone: (619) 344-9400

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
HM a. X Hazardous Waste, Solid, N.O.S. (Creosote), 9, NA 3077, III	003	DM	3 78	P	State 352
					EPA/Other U051, D026
b.					State
					EPA/Other
c.					State
					EPA/Other
d.					State
					EPA/Other

RECEIVED
JUN - 7 1993
KOPPERS INDS., INC.
PORTLAND, OR

J. Additional Descriptions for Materials Listed Above: a) 1464-IDR-0493

K. Handling Codes for Wastes Listed Above: a. T03/D81 | b. | c. | d.

15. Special Handling Instructions and Additional Information: 24 Hour Emergency # (800) 535-5053 (515)
Wear PPE when handling
ERG# a) 31

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
JOHN A OXFORD	John A Oxford	05	18	93

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
CLIFF R. RAZY	Cliff R. Razy	05	18	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Brian Eckhoff	Brian Eckhoff	05	19	93

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Andrew Hamby	Andrew Hamby	05	21	93

DO NOT WRITE BELOW THIS LINE

DTSC 8022A (7/92)
EPA 8700-22

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

Koppers Company, Inc.
Chemical and Allied Products
Pittsburgh, Pa. 15219

KOPPERS

Location Portland

Local Purchase Requisition

To Vendor: Laidlaw Environmental

Ship To: R.I.I

Koppers requests that Seller furnish the goods and/or services listed below, subject to the terms on the reverse side of this order.

Invoice To:

Date Ordered	Date Required	Requisition No.	Order Number
5-3-93	5-18-93		93-19

Please Invoice in Triplicate

Quantity	Description	Price	Discount•Terms•F.O.B.	Account Number
	Disposal of 3 Drums of Creosote Contaminated Soil and Debris			

Approvals

Invoice Date	Invoice Number	Audit Number	Date Trans to Pgh.

Ordered By: J a O'Hara

Approved By: J a O'Hara

Received By: J a O'Hara Date Received: 5-18-93

Distribution ☐ Vendor ☐ Originating Location ☐ Originator ☐ Buyer or

T-75 Rev. 925M 2/88
Printed in U.S.A.

ORIGINATOR

LAIDLAW ENVIRONMENTAL SERVICES

RECEIVED
APR 29 1993
KOPPERS INDS., INC.
PORTLAND, OR

April 21, 1993

JOHN OXFORD
KOPPERS CO., INC.
7450 N W ST., HELENS RD.
PORTLAND, OR 97210

RE: CREOSOTE SPILL CLEAN UP
FROM PORTLAND, OR

Dear Sir:

This letter is to inform you that Laidlaw Environmental Services (Imperial Valley), Inc. has the appropriate permits for and will accept the waste identified above. Should any significant changes occur in this specific waste stream from the time the test data and/or predisposal samples were shipped, please contact Marianna Buoni or me prior to shipping.

We have assigned the following Waste Approval Number to this waste:

1464-IDR-0493

Unless otherwise notified, this number will expire one year from the date indicated above.

This number must be written on the manifest accompanying each load of waste. You have profiled this waste stream as RCRA. Place the Waste Approval Number in Section 15 of the California Hazardous Waste Manifest.

Sincerely,

David Hankins
Waste Acceptance Manager

DH:sew

cc: Dorothea Elmore

Laidlaw Environmental Services (Lokern), Inc.
2500 West Lokern Road Post Office Box 787 Buttonwillow, California 93206
Phone 805.762.7372 Fax 805.762.7681

LAIDLAW ENVIRONMENTAL SERVICES (LOKERN), INC.
SCHEDULING GUIDELINES

All deliveries must be scheduled at least 24 hours in advance. Scheduling your deliveries will allow the Laidlaw Lokern Facility to provide your company with more efficient service.

FACILITY OPERATING HOURS

Monday through Friday	*6:00 am to 9:00 pm*
Saturday and Sunday	*Closed*

* *ASBESTOS deliveries will be accepted Monday through Friday only, from 7:00 am to 11:00 am.*

WORK ORDER NUMBERS

When you call to schedule your deliveries, a WORK ORDER NUMBER will be assigned to each scheduled waste stream. This WORK ORDER NUMBER must be written in section 15 on the hazardous manifest. Similarly, the WORK ORDER NUMBER must be written in the upper right corner on non-hazardous shipping documents. Omission of this WORK ORDER NUMBER may result in delays in off-loading your waste.

The WORK ORDER NUMBER is assigned for a specific delivery time. Please make every effort to adhere to this schedule. Trucks that do not arrive within 1 hour of their scheduled time may be subject to long delays.

THE FOLLOWING INFORMATION WILL BE NECESSARY WHEN YOU CALL TO SCHEDULE. PLEASE HAVE IT AVAILABLE WHEN YOU CALL.

* *Generator name*
* *Laidlaw WASTE APPROVAL NUMBER*
* *Material classification i.e., RCRA, California hazardous, non-hazardous*
* *Preferred date and time for delivery*
* *Number of loads to be scheduled*
* *Method of shipment i.e., drums, bulk, etc.*

WHOM TO CALL

Lokern Facility Scheduling Coordinator at 1-800-544-7199 Monday through Friday 8:30 am to 12:30 pm and 1:00 pm to 5:00 pm.

ad\users\dave\qafiles\schguide.lin

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

92713957

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: OR0027734359 — Manifest Document No.: 13957
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Koppers Company, 7540 NW St. Helens Rd, Portland, OR 97210
4. Generator's Phone: (503) 286-3681
A. State Manifest Document Number: 92713957
B. State Generator's ID: H AHQ36-046811
5. Transporter 1 Company Name: KVS Transportation
6. US EPA ID Number: CAD982495608
C. State Transporter's ID: 312388
D. Transporter's Phone: 805-589-5220
7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:
9. Designated Facility Name and Site Address: Laidlaw Environmental Services (Imperial Valley), 5295 S. Garvey Rd, Westmorland, CA 92281
10. US EPA ID Number: CAD000633164
G. State Facility's ID:
H. Facility's Phone: (619) 344-9400

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
HM a. X Hazardous Waste, Solid, N.O.S. (Creosote), 9, NA3077, III	003	DM	1378	P	State 352; EPA/Other U051, D026
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above: a) 1464-IDR-0493

K. Handling Codes for Wastes Listed Above: a. b. c. d.

15. Special Handling Instructions and Additional Information: 24 Hour Emergency # (800) 535-5053 (515)
Wear PPE when handling
ERG# a) 31

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
JOHN A. OXFORD	John A. Oxford	05	18	933

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
CLIFF R. KAZY	Cliff R. Kazy	05	18	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (7/92)
EPA 8700—22

Yellow: GENERATOR RETAINS

Koppers018514

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORO02773435 | Manifest Document No. 13957 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Koppers Company, 7540 NW St. Helens Rd, Portland, OR 97210

4. Generator's Phone (503) 286-3681

A. State Manifest Document Number: 92713957

B. State Generator's ID: H AH 0336-04681 11

5. Transporter 1 Company Name: KVS Transportation | 6. US EPA ID Number: CAD982491608

C. State Transporter's ID: 312388

D. Transporter's Phone: 805-589-5220

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: Laidlaw Environmental Services (Imperial Valley), 5295 S. Garvey Rd, Westmorland, CA 92281 | 10. US EPA ID Number: CAD000633164

G. State Facility's ID

H. Facility's Phone: (619) 344-9400

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. X Hm Hazardous Waste, Solid, N.O.S. (Creosote), 9, NA3077, III	003	DM	1378	P	State 352 EPA/Other U051, D026
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above: a) 1464-IPR-0493

K. Handling Codes for Wastes Listed Above: a. | b. | c. | d.

15. Special Handling Instructions and Additional Information: 24 Hour Emergency # (800) 535-5053 (515)
Wear PPE when handling
ERG# a) 31

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
JOHN A. OXFORD	John A Oxford	05	18	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
CLIFF R. RAZY	Cliff R. Razy	05	18	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

Blue: GENERATOR SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 400, Sacramento, CA 95812-0400

DTSC 8022A (7/92)
EPA 8700—22

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

92713957

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Telephone: 503-286-3681
Fax: 503-285-2831

December 1, 1994

To: Amos S. Kamerer

From: T. J. Turner

On 30 November 1994, at 8:00 p.m., I entered the plant and inspected the lower tank farm, finding 12 to 18 inches of standing water. All five of our water collection tanks are full and overflowing. For the last 24 hours we have had a record rainfall of over 3.2 inches and the rain is still falling.

If this process continues without change, we will suffer severe economic losses due to the rising water table in the lower tank farm. These losses include damage to pumps, motors, and related systems.

It is now after 9:00 p.m. and weather conditions are unchanged. The water table in the lower tank farm is still rising. It is now cresting the top of the sump and encroaching on the pumping systems.

If the water reaches these pumps we will lose the ability to pump water altogether, thus endangering all of our systems in the lower tank farm, and effectively shutting down the plant entirely.

The past performance of the lab tests on our waste water tanks have shown no excess amount of oils and greases, or phenols, and no results in excess of our NPDES permits. Based on these facts, as well as the fact that this water appears to be no more than collected rain water and we now face imminent severe economic losses, I have decided to turn the sump pumps back on as a last resort. I am doing this after exhausting all other courses of action.

I have assigned a man to monitor the situation hourly until we are out of danger.

Respectfully,

T. J. Turner
General Foreman

DEPARTMENT OF ENVIRONMENTAL QUALITY
Northwest Region
2020 SW Fourth Ave., Suite 400
Portland, OR 97201-4987

NOTICE OF APPROVED CONSTRUCTION COMPLETION

(Return this form within 30 days of completion of approved construction)

Applicant: Supply all information requested in this block.

Company Koppers Industries Incorporated Phone (503) 286-3681

Address 7540 NW Saint Helens Road

City, State, Zip Portland, Oregon 97210 Contact Person Amos Kamerer

DEQ File No. 26-2930 NC No. 017284

Description of installed facility/equipment:

A new pipeline and storage tank for liquid pitch was built, including all of the related piping and a new hot oil heater was installed.

Construction completed on: 1/14/00 Placed in operation on: 12/23/99

Tax Credits

Do you wish to apply for tax credit? Yes ____ No X

Signature
Amos S. Kamerer

Plant Manager
Title

1/25/00
Date

For DEQ Use Only

Assigned to ____ Date ____ Inspection report by ____ Date ____

Summary of Inspection:

NC.2
(9/93)

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

March 9, 1999

KOPPERS INDUSTRIES INC
7540 NW ST HELENS RD
PORTLAND OR 97210

Liquid Phase

RE: NOTICE OF INTENT TO CONSTRUCT
FILE NO. **26-2930**
NC # **017284**

The Department received the above referenced Notice of Construction on December 31, 1998. Department rules grant default approval if the Director has not issued an order prohibiting the construction, installation or establishment of the proposed construction within 60 days of receipt of a complete NC.

OAR 340-028-0820 states that within 60 days of receipt of a completed Notice of Construction the Director may determine that the proposed construction is not in accordance with applicable statutes, rules, regulations and orders and shall issue an order prohibiting the construction, installation or establishment of the air contamination source. Failure to issue such an order within the time prescribed shall be considered a determination that the proposed construction, installation, or establishment may proceed, provided that it is in accordance with plans and specifications, and Department rules.

No additional information was requested. Your Notice of Construction was considered complete on December 31, 1998. In accordance with 340-028-0820, you are allowed to proceed with construction/ installation and operation of the proposed construction. This approval does not relieve the owner of the obligation of complying with applicable emission standards, permit conditions, orders or to obtain required local, state and other permits. Nor does the approval preclude the Department from imposing additional limitations and/or conditions of operation at some point in the future.

Please submit the enclosed "Notice of Construction Completion" form within 30 days of the completion of the proposed construction or within 30 days of receipt of this letter if construction is already complete.

If you have any questions, please contact me at (503) 229-5582 .

Sincerely,

Johnny D Baumgartner

Johnny D. Baumgartner
AQ Permit Coordinator
Northwest Region

Enclosure
Cc: Michelle Sandholm/AQ Division
Randy Bailey/NWR

DEQ-1

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

January 7, 1999

KOPPERS INDUSTRIES INC
7540 NW ST HELENS RD
PORTLAND OR 97210

RE: NOTICE OF INTENT TO CONSTRUCT
FILE / PERMIT # 26-2930
NC # 017284

On December 31, 1998 the Department of Environmental Quality accepted for processing a Notice of Intent to Construct for your facility located at 7540 NW St. Helens Road in Portland, Oregon. Your notice requests review of the installation of two storage tank foundations, one storage tank with hot oil heating coils, pitch transfer system, hot oil heater and fume collection piping.

Processing of this notice is assigned to Randy Bailey at (503) 229-6736.

Unless the Department requests additional information within thirty (30) days of the date of this letter, you will be notified of approval or disapproval within sixty (60) days.

In addition to meeting the air quality standards, your facility is also obligated to operate in compliance with the daytime and nighttime noise standards set forth in Oregon Administrative Rule (OAR) 340-35-035(1). For a copy of the noise regulations please call me at (503) 229-5582.

Sincerely,

Johnny D Baumgartner

Johnny D. Baumgartner
Permit Coordinator
Air Quality Section
Northwest Region

Cc: Randy Bailey/NWR
Kathy Amidon/NWR

cc: Traci Self, K-1800
B. Meisinger, HTC
J. Dietz, HTC

RECEIVED
JAN 11 1999
KOPPERS INDS, INC.
PORTLAND OR

DEQ-1

Koppers018519

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Amos S. Kamerer
Plant Manager

Telephone: 503-286-3681
Fax: 503-285-2831

December 30, 1998

Oregon Department Of Environmental Quality
Northwest region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987

Attention: Kathy Amidon

RE: Koppers Industries, Inc.- Portland Terminal
Air Permit Application No. 26-2930
Multnomah County

Dear Ms. Amidon,

Enclosed please find the "Notice of Intent to Construct", as promised in Traci's memo that was sent to you yesterday. I also want to point out, that we have shown the "Begin" date as February 1,1999, however, the actual construction will not start until the building permits are issued, and as a result, it is possible that this date could be later.

If you have any questions, please contact me at (503) 286-3681.

Sincerely,

Amos S. Kamerer

cc: Traci Self
Jim Dietz
Kevin Fitzgerald
Steve Smith

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

December 29, 1998

Oregon Department Of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987

Attention: Kathy Amidon

RE: Koppers Industries Inc. – Portland Terminal
Supplemental Information
Air Permit Application No. 26-2930
Multnomah County

Dear Ms. Amidon:

In response to our telephone conversation of December 8, 1998, and my letter to you dated December 22, 1998, I have enclosed the following requested information:

1. List of all tanks which includes tank contents, date of installation and vapor pressure.
2. Hazardous Air Pollutant (HAP) calculation (actual and potential) for the facility.
3. Design of new tanks 200 and 210, including materials to be stored for purpose of determining new source performance standards applicability (40 CFR 60, Kb)

As stated in previous correspondence the Portland Terminal Liquid pitch facility is proposed for construction in two phases. Phase I will consist of addition of a new liquid pitch storage tank (T- 200) and a new 10 MM BTU/Hr hot oil heater. The existing 8.5 MM BTU/HR hot oil heater will be used as a back up unit. Phase II will consist of addition of a liquid pitch storage tank (T-210) and new fume combustion system, if required. Koppers Industries Inc. has prepared HAP calculations for the actual existing units and maximum potential emissions for the existing case and each phase thereafter. The HAP emissions for existing, Phase I and Phase II are well below Title V trigger levels.

A summary of all storage tanks which includes tank contents, date of installation and vapor pressure is enclosed. Tanks containing creosote will be changed to heavy oil storage upon installation of the de-mister unit. The current and future vapor pressures are shown on the table. The proposed new liquid pitch tanks 200 and 210 will not be subject to new source performace standards (40 CFR 60, Kb) because the vapor pressures are below the applicable standards.

A "Property Site Plan" indicating tank location is provided.

KII plans to commence construction of tank T-200 and the new hot oil heater on or about January 18, 1999. Therefore, KII will submit a "Notice of Intent to Construct". This notice will be submitted separately.

RECEIVED

JAN 0 8 1999

KOPPERS INDS, INC.
PORTLAND OR

The Portland terminal is presently using natural gas for the boiler and hot oil heater. However, the terminal is operating under an interruptible gas contract. In the event that natural gas becomes unavailable, diesel fuel must be used in the units. The maximum potential emission calculations for existing units and proposed Phase I and Phase II reflect use of diesel fuel for a maximum period of 12 weeks.

Because of the variability of business projections and uncertainty of obtaining a non-interruptible gas supply, Koppers Industries Inc. is requesting Oregon Department Of Environmental Quality (ODEQ), to permit the Portland facility based on the maximum potential emission calculations listed for Phase I.

If you have, any questions please contact Amos Kamerer at (503) 286-3681 or me at (412) 227-2883.

Sincerely,

Traci I. Self
Environmental Manager

Attachments

cc: Amos Kamerer
Jim Dietz
Kevin Fitzgerald
Steve Smith

Koppers Industries Inc.
Portland Terminal
Tank Summary

Tank ID#	Installation Date	Nominal Capacity (gals)	Contents/(Future Contents)	Vapor Pressure	Future V.P.
POR-T-20	1920	300,000	Storm Water		
POR-T-11	1942	225,000	Storm Water		
POR-T-4	1942	100,000	Storm Water		
POR-T-01	1952	650,000	Storm Water		
POR-T-02	1942	1,000,000	Storm Water		
POR-T-03	1942	100,000	Storm Water		
POR-T-17	1942	20,000	Storm Water		
POR-T-66	1947	100,000	Storm Water		
POR-T-19	1920	20,000	Storm Water		
POR-T-39	1942	20,000	Storm Water		
POR-T-12	1942	56,000	Storm Water		
POR-T-102	1920	9,282	Creosote/(Heavy Oil)	0.0386	0.0302
POR-T-99	1951	200,000	Storm Water		
POR-T-101	1952	759,000	Storm Water		
POR-T-23	1920	20,000	Storm Water		
POR-T-33	1920	45,000	Heavy Oil	0.0302	0.0302
POR-T-34	1942	45,000	Storm Water		
POR-T-53	1920	16,000	Storm Water		
POR-T-65	1947	750,000	Melter/(Liquid Pitch)	0.0077	0.0077
POR-T-67	1947	90,000	Creosote/(Heavy Oil)	0.0386	0.0302
POR-T-74	1920	10,000	Storm Water		
POR-T-V207	1920	15,000	Storm Water		
POR-T-SW-1	1920	45,000	Storm Water		
POR-T-SW-2	1920	45,000	Storm Water		
POR-T-SW-3	1920	45,000	Storm Water		
POR-T-SW-4	1920	45,000	Storm Water		
POR-T-SW-5	1920	20,000	Storm Water		
POR-T-SW-6	1920	20,000	Storm Water		
POR-T-68	1947	245,000	Liquid Pitch	0.0185	0.0185
POR-T-18	1920	20,000	Storm Water		
POR-T-200	1999	2,000,000	Empty/(Liquid Pitch)		0.0121
POR-T-210	2000	2,000,000	Empty/(Liquid Pitch)		0.0121

Actual Emissions from Existing Units
Koppers Industries, Inc., Portland Terminal

Unit	Comments	Commodity	NOx (lb/hr)	NOx Tons/Yr	VOC (lb/hr)	VOC Tons/Yr	CO (lb/hr)	CO Tons/Yr	SO2 (lb/hr)	SO2 Tons/Yr	PM-10 (lb/hr)	PM-10 Tons/Yr
Atlas Boiler		Gas	2.82	2.04	0.06	0.04	0.70	0.51	0.08	0.06	0.12	0.09
Hot Oil Heater		Gas	0.81	0.59	0.04	0.08	0.17	0.12	0.03	0.02	0.04	0.03
Fume Recovery System [1,2]		NA			12.47	13.01						
Tank 33		Heavy Oil			0.37	0.011						
Tank 67		P1/P13 Distillate			1.18	0.024						
Loading Tank 67 to Rail		P1/P13 Distillate			1.71	0.003						
Fugitives		NA			0.98	0.266						
Plant Total			**3.63**	**2.63**	**16.81**	**13.43**	**0.88**	**0.63**	**0.11**	**0.08**	**0.16**	**0.12**

NOTES

[1] The fume recovery system receives emissions from the following units: T-68, T-65, railcar loading and tank car loading.

[2] Hourly and annual VOC emissions from the fume recovery system were calculated using ChemCAD. Annual VOCs were adjusted by 1997 actual operating hours over 8,760 hours.

Koppers018524

Actual HAP Emissions from Existing Units
Koppers Industries, Inc., Portland Terminal

Unit	Benzene (lb/yr)	Toluene (lb/yr)	Ethylbenzene (lb/yr)	p-Xylene (lb/yr)	m-Xylene (lb/yr)	Phenol (lb/yr)	m-Cresol (lb/yr)	p-Cresol (lb/yr)	o-Cresol (lb/yr)	Naphthalene (lb/yr)	Quinoline (lb/yr)	Biphenyl (lb/yr)	Dibenzofuran (lb/yr)	Total HAPs (lb/yr)	
Atlas Boiler															
Hot Oil Heater															
Fume Recovery System 1,2										2,521.03	189.67	235.45	1,534.53	4,480.68	
Tank 33										0.02	0.02	0.08	0.47	0.58	
Tank 67	2.10	1.64	0.71	0.66	0.64	0.09	0.05	0.05	0.10	21.62	0.96	0.63	1.87	31.11	
Loading Tank 67 to Rail	0.28	0.22	0.10	0.09	0.09	0.01	0.01	0.01	0.01	2.91	0.13	0.09	0.25	4.18	
Fugitives	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.03	0.04	0.11	0.43	
Plant Total	**2.38**	**1.86**	**0.81**	**0.75**	**0.72**	**0.10**	**0.06**	**0.06**	**0.11**	**2,545.82**	**190.81**	**236.29**	**1,537.23**	**4,516.98**	LB/YR
														2.26	TPY

NOTES

1 The fume recovery system receives emissions from the following units: T-68, T-65, railcar loading and tank car loading.

2 Annual HAP emissions from the fume recovery system were calculated using ChemCAD. Annual HAPs were adjusted by 1997 actual operating hours over 8,760 hours.

Koppers018525

Maximum Potential Emissions from Existing Units
Koppers Industries, Inc., Portland Terminal

Unit	Comments	Commodity	NOx (lb/hr)	NOx Tons/Yr	VOC (lb/hr)	VOC Tons/Yr	CO (lb/hr)	CO Tons/Yr	SO2 (lb/hr)	SO2 Tons/Yr	PM-10 (lb/hr)	PM-10 Tons/Yr
Atlas Boiler[1]		Gas	2.82	12.33	0.06	0.25	0.70	3.08	0.08	0.33	0.12	0.55
		Oil/Gas	3.00	12.52	0.06	0.22	0.75	3.13	10.65	11.31	0.30	1.24
		MAX	3.00	12.52	0.06	0.25	0.75	3.13	10.65	11.31	0.30	1.24
Hot Oil Heater(backup unit)[1]		Gas	0.81	3.57	0.04	0.19	0.17	0.75	0.03	0.14	0.04	0.16
		Oil/Gas	1.22	3.97	0.04	0.16	0.31	0.88	4.33	4.60	0.12	0.43
		MAX	1.22	3.97	0.04	0.19	0.31	0.88	4.33	4.60	0.12	0.43
Fume Recovery System [2,3]		NA			12.47	18.11						
Tank 33		Heavy Oil			0.37	0.016						
Tank 67		P1/P13 Distillate			0.59	0.024						
Loading Tank 67 to Rail		P1/P13 Distillate			1.71	0.003						
Fugitives		NA			0.98	0.568						
Plant Total			**4.22**	**16.49**	**16.22**	**19.15**	**1.06**	**4.01**	**14.98**	**15.91**	**0.42**	**1.67**

NOTES

[1] Combustion units may be run on natural gas or #2 fuel oil. However, fuel oil combustion will occur a maximum of 12 weeks during any given year.

[2] The fume recovery system receives emissions from the following units: T-68, T-65, railcar loading and tank car loading.

[3] Hourly and annual VOC emissions from the fume recovery system were calculated using ChemCAD.

Koppers018526

Maximum Potential HAP Emissions from Existing Units
Koppers Industries, Inc., Portland Terminal

Unit	Commodity	Benzene (lb/yr)	Toluene (lb/yr)	Pyridine (lb/yr)	Ethylbenzene (lb/yr)	p-Xylene (lb/yr)	m-Xylene (lb/yr)	Phenol (lb/yr)	m-Cresol (lb/yr)	p-Cresol (lb/yr)	o-Cresol (lb/yr)	Naphthalene (lb/yr)	Quinoline (lb/yr)	Biphenyl (lb/yr)	Dibenzofuran (lb/yr)	Total HAPs (lb/yr)	
Atlas Boiler[1]	Gas																
	Oil/Gas																
	MAX																
Hot Oil Heater(backup unit)[1]	Gas																
	Oil/Gas																
	MAX																
Fume Recovery System [2,3]	NA											3509.33	264.02	327.76	2136.10	6237.22	
Tank 33	Heavy Oil											0.03	0.03	0.11	0.68	0.85	
Tank 67	P1/P13 Distillate	3.06			0.00				0.00							3.06	
Loading Tank 67 to Rail	P1/P13 Distillate	0.23	0.18		0.08	0.07	0.07	0.01	0.01	0.01	0.01	2.33	0.10	0.07	0.20	3.35	
Fugitives	NA	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.03	0.04	0.12	0.43	
Plant Total		3.28	0.18		0.08	0.07	0.07	0.01	0.01	0.01	0.01	3,511.93	264.19	327.98	2,137.10	6,244.89	LB/YR
																3.12	TPY

NOTES

[1] Combustion units may be run on natural gas or #2 fuel oil. However, fuel oil combustion will occur a maximum of 12 weeks during any given year.

[2] The fume recovery system receives emissions from the following units: T-68, T-65, railcar loading and tank car loading.

[3] Annual HAP emissions from the fume recovery system were calculated using ChemCAD.

Koppers018527

Maximum Potential Emissions, Phase I
Koppers Industries, Inc., Portland Terminal

Unit	Comments	Commodity	NOx (lb/hr)	NOx Tons/Yr	VOC (lb/hr)	VOC Tons/Yr	CO (lb/hr)	CO Tons/Yr	SO2 (lb/hr)	SO2 Tons/Yr	PM-10 (lb/hr)	PM-10 Tons/Yr
Atlas Boiler[1]		Gas	2.82	12.33	0.06	0.25	0.70	3.08	0.08	0.33	0.12	0.55
		Oil/Gas	3.00	12.52	0.06	0.22	0.75	3.13	10.65	11.31	0.30	1.24
		MAX	3.00	12.52	0.06	0.25	0.75	3.13	10.65	11.31	0.30	1.24
Hot Oil Heater(backup unit)[1]		Gas	0.81	3.57	0.04	0.19	0.17	0.75	0.03	0.14	0.04	0.16
		Oil/Gas	1.22	3.97	0.04	0.16	0.31	0.88	4.33	4.60	0.12	0.43
		MAX	1.22	3.97	0.04	0.19	0.31	0.88	4.33	4.60	0.12	0.43
Fume Recovery System[2,3]		NA			12.47	18.11						
Tank 33		Heavy Oil			0.37	0.016						
Tank 67		Heavy Oil			0.15	0.006						
Fugitives		NA			0.98	0.568						
New Hot Oil Heater[1]		Gas	1.34	5.87	0.03	0.12	0.34	1.47	0.04	0.16	0.06	0.26
		Oil/Gas	1.42	5.96	0.03	0.10	0.36	1.49	5.04	5.34	0.14	0.52
		MAX	1.42	5.96	0.03	0.12	0.36	1.49	5.04	5.34	0.14	0.52
T-200		Liquid Pitch				Note 4						
Plant Total			**5.64**	**22.45**	**14.10**	**19.25**	**1.41**	**5.50**	**20.02**	**21.26**	**0.56**	**2.19**

NOTES

[1] Combustion units may be run on natural gas or #2 fuel oil. However, fuel oil combustion will occur a maximum of 12 weeks during any given year.

[2] The fume recovery system receives emissions from the following units: T-68, T-65, T-200, railcar loading and tank car loading.

[3] Hourly and annual VOC emissions from the fume recovery system were calculated using ChemCAD.

[4] VOC Emissions from T-200 are included in the fume recovery system's emissions.

Koppers018528

Maximum Potential HAP Emissions, Phase I
Koppers Industries, Inc., Portland Terminal

Unit	Commodity	Benzene (lb/yr)	Toluene (lb/yr)	Ethylbenzene (lb/yr)	p-Xylene (lb/yr)	m-Xylene (lb/yr)	Phenol (lb/yr)	m-Cresol (lb/yr)	p-Cresol (lb/yr)	o-Cresol (lb/yr)	Naphthalene (lb/yr)	Quinoline (lb/yr)	Biphenyl (lb/yr)	Dibenzofuran (lb/yr)	Total HAPs (lb/yr)
Atlas Boiler[1]	Gas														
	Oil/Gas														
	MAX														
Hot Oil Heater(backup unit)[1]	Gas														
	Oil/Gas														
	MAX														
Fume Recovery System [2,3]	NA										3,509.33	264.02	327.76	2,136.10	6,237.22
Tank 33	Heavy Oil										0.03	0.03	0.11	0.68	0.85
Tank 67	Heavy Oil										0.95	0.03	0.02	0.15	1.15
Fugitives	NA										0.03	0.00	0.00	0.03	0.07
New Hot Oil Heater[1]	Gas														
	Oil/Gas														
	MAX														
T-200[4]	Liquid Pitch														
Plant Total											3,510.34	264.09	327.90	2,136.95	6,239.28
															3.12

NOTES

[1] Combustion units may be run on natural gas or #2 fuel oil. However, fuel oil combustion will occur a maximum of 12 weeks during any given year.

[2] The fume recovery system receives emissions from the following units: T-68, T-65, T-200, railcar loading and tank car loading.

[3] Annual HAP emissions from the fume recovery system were calculated using ChemCAD.

Koppers018529

Maximum Potential Emissions, Phase II
Koppers Industries, Inc., Portland Terminal

Unit	Comments	Commodity	NOx (lb/hr)	NOx Tons/Yr	VOC (lb/hr)	VOC Tons/Yr	CO (lb/hr)	CO Tons/Yr	SO2 (lb/hr)	SO2 Tons/Yr	PM-10 (lb/hr)	PM-10 Tons/Yr
Atlas Boiler[1]		Gas	2.82	12.33	0.06	0.25	0.70	3.08	0.08	0.33	0.12	0.55
		Oil/Gas	3.00	12.52	0.06	0.22	0.75	3.13	10.65	11.31	0.30	1.24
		MAX	3.00	12.52	0.06	0.25	0.75	3.13	10.65	11.31	0.30	1.24
Hot Oil Heater(backup unit)[1]		Gas	0.81	3.57	0.04	0.19	0.17	0.75	0.03	0.14	0.04	0.16
		Oil/Gas	1.22	3.97	0.04	0.16	0.31	0.88	4.33	4.60	0.12	0.43
		MAX	1.22	3.97	0.04	0.19	0.31	0.88	4.33	4.60	0.12	0.43
Fume Combustion System [2,3]		NA			0.49	2.16						
Tank 33		Heavy Oil			0.37	0.016						
Tank 67		Heavy Oil			0.15	0.006						
Fugitives		NA			0.98	0.568						
New Hot Oil Heater[1]		Gas	1.34	5.87	0.03	0.12	0.34	1.47	0.04	0.16	0.06	0.26
		Oil/Gas	1.42	5.96	0.03	0.10	0.36	1.49	5.04	5.34	0.14	0.52
		MAX	1.42	5.96	0.03	0.12	0.36	1.49	5.04	5.34	0.14	0.52
T-200		Liquid Pitch				Note 4						
T-210		Liquid Pitch				Note 4						
Plant Total	**Maximum**		**5.64**	**22.45**	**2.12**	**3.30**	**1.41**	**5.50**	**20.02**	**21.26**	**0.56**	**2.19**

NOTES

[1] Combustion units may be run on natural gas or #2 fuel oil. However, fuel oil combustion will occur a maximum of 12 weeks during any given year.

[2] The fume combustion system receives emissions from the following units: T-68, T-65, T-200, T-210, railcar loading and tank car loading.

[3] Hourly and annual VOC emissions from the fume recovery system were calculated using ChemCAD.

[4] VOC Emissions from T-200 and T-210 are included in the fume combustion system's emissions.

Koppers018530

Maximum Potential HAP Emissions, Phase II
Koppers Industries, Inc., Portland Terminal

Unit	Commodity	Benzene (lb/yr)	Toluene (lb/yr)	Ethylbenzene (lb/yr)	p-Xylene (lb/yr)	m-Xylene (lb/yr)	Phenol (lb/yr)	m-Cresol (lb/yr)	p-Cresol (lb/yr)	o-Cresol (lb/yr)	Naphthalene (lb/yr)	Quinoline (lb/yr)	Biphenyl (lb/yr)	Dibenzofuran (lb/yr)	Total HAPs (lb/yr)	
Atlas Boiler[1]	Gas															
	Oil/Gas															
	MAX															
Hot Oil Heater(backup unit)[1]	Gas															
	Oil/Gas															
	MAX															
Fume Combustion System [2,3]	NA										0.43				0.43	
Tank 33	Heavy Oil										0.03	0.03	0.11	0.68	0.85	
Tank 67	Heavy Oil										0.95	0.03	0.02	0.15	1.15	
Fugitives	NA										0.03	0.00	0.00	0.03	0.07	
New Hot Oil Heater[1]	Gas															
	Oil/Gas															
	MAX															
T-200[4]	Liquid Pitch															
T-210[4]	Liquid Pitch															
Plant Total											1.44	0.06	0.14	0.85	2.50	LB/YR
															0.001	TPY

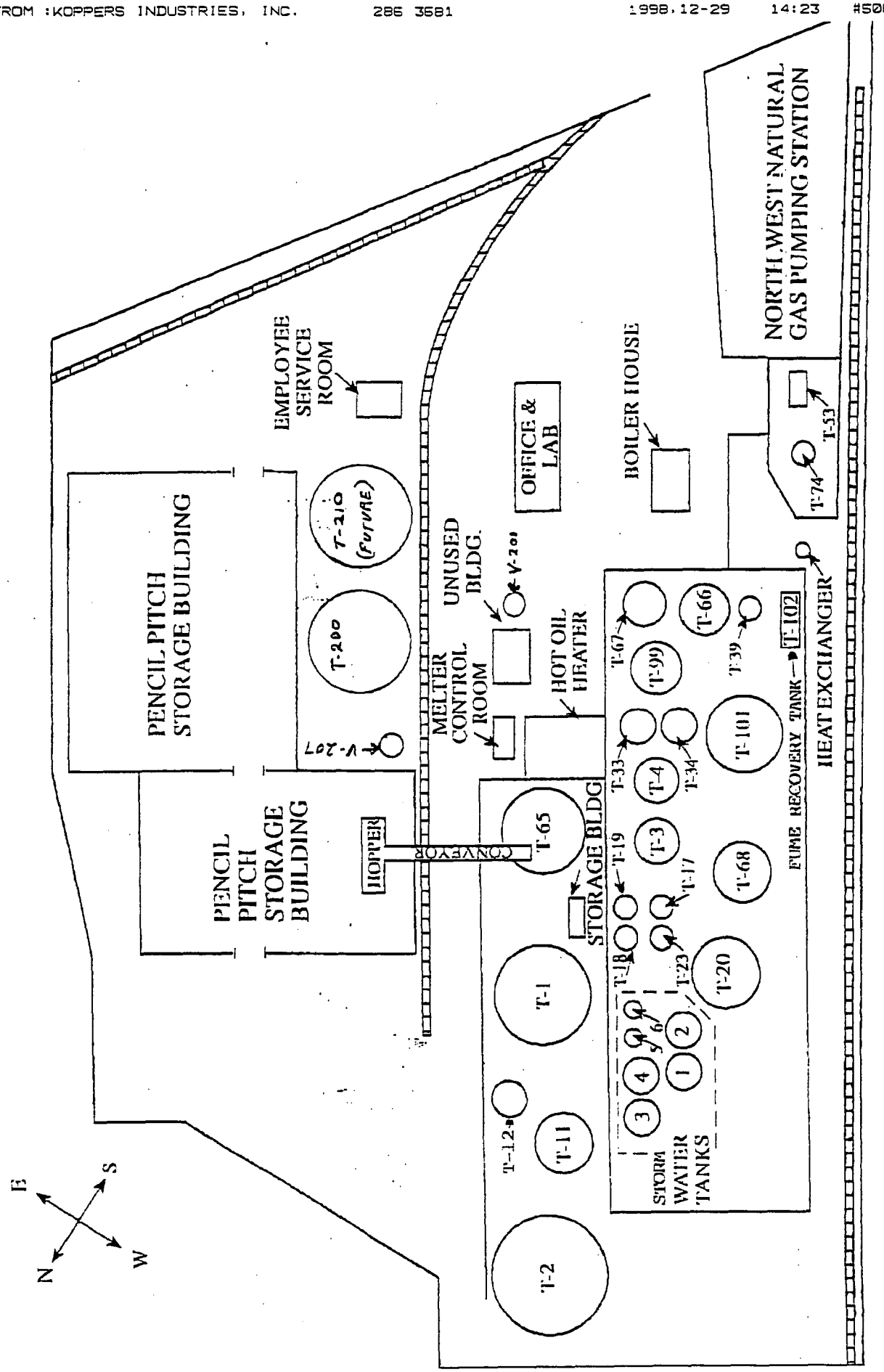
NOTES

[1] Combustion units may be run on natural gas or #2 fuel oil. However, fuel oil combustion will occur a maximum of 12 weeks during any given year.

[2] The fume combustion system receives emissions from the following units: T-68, T-65, T-200, T-210, railcar loading and tank car loading.

[3] Annual HAP emissions from the fume recovery system were calculated using ChemCAD.

Koppers018531



PROPERTY SITE PLAN

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FORM APPROVED. OMB No. 2040-0086

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	ORD027734359		D

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, VI *(except VI.B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge to waters of the U.S.**? (FORM 2A)		X		B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge to waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges to waters of the U.S.** other than those described in A or B above? (FORM 2C)	X			D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)				F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)			
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)				H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)			
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)				J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			

III. NAME OF FACILITY

C 1: Koppers Inc. Northwest Terminal

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first & title)*	B. PHONE *(area code & no.)*
C 2: Self Traci Environmental Manager	4122272883

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3: 7540 NW St. Helens Road

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4: Portland	OR	97210

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5: 7540 NW St. Helens Road

B. COUNTY NAME

Multnomah

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
C 6: Portland	OR	97210	

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VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST		B. SECOND	
C 7	2865 (specify) Organic chemcials	C 7	(specify)
C. THIRD		**D. FOURTH**	
C 7	(specify)	C 7	(specify)

VIII. OPERATOR INFORMATION

A. NAME	B. Is the name listed in Item VIII-A also the owner?
C 8 Koppers Inc.	Yes

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other", specify.)*		D. PHONE *(area code & no.)*
F=FEDERAL M=PUBLIC *(other than federal or state)* S=STATE O=OTHER *(specify)* P=PRIVATE	P (specify)	C A 5032862681

E. STREET OR P.O. BOX

7540 NW St. Helens Road

F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
C 6 Portland	OR	97210	Is the facility located on Indian lands? No

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
C T I 9 N 101642	C T I 9 P
B. UIC *(Underground Injection of Fluids)*	**E. OTHER**
C T I 9 U	C T I 9 (specify)
C. RCRA *(Hazardous Wastes)*	**E. OTHER**
C T I 9 U	C T I 9 (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

Terminal Operations for carbon pitch. The terminal imports liquid and /or solid pitch coal tar pitch. This pitch is then reloaded from the storage tanks into tank trucks or tank rail cars and shipped to various customers. No process wastewaters are generated. Only stormwater and boiler blow down water is generated and discharged through this permit. No wastewater treatment is done on this site.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in teh application, I believe that the information is true, accurate and complete. I am aware that there are significant penalities for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
T. J. Turner General Foreman		

COMMENTS FOR OFFICIAL USE ONLY

C 6

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Form Approved 1/14/99
OMB Number 2040-0086

FORM 2C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG	2. MIN	3. SEC	1. DEG	2. MIN	3. SEC	
001	45.00	34.00	38.00	122.00	45.00	32.00	Willamette River

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing of water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g. for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection of treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NUMBER (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1
001	Stormwater/Boiler Blowdown	27,000 gal/mo	Water stored in 6-46,000 gal storage tanks. Samples are taken from the tank, not the outfall	1-U

OFFICIAL USE ONLY (effluent guidelines sub-categories)

Koppers018535

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II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES (cont.)

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ *YES (complete the following table)* ☒ *NO (go to Section III)*

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ *YES (complete Item III-B)* ☐ *NO (go to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of production)?

☐ *YES (complete Item III-C)* ☒ *NO (go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

IV. IMPROVEMENTS

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ *YES (complete the following table)* ☒ *NO (go to Item IV-B)*

IV. IMPROVEMENTS (cont.)

B. OPTIONAL. You may attach additional sheets describing any additional water pollution control programs or other environmental projects which may affect your discharges (including pollution prevention programs) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ *MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED*

Koppers018536

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding - Complete one set of tables for each outfall - Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets.

D. Use the space below to list any of the pollutants listed in Table 2C-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an immediate or final product or byproduct?

[X] *YES (list all pollutants below)* [ ] *NO (go to Item VI-B)*

Koppers018537

2M. Arsenic, Total (7440-38-2)
3M. Beryllium, Total (7440-41-7)
4M. Cadmium, Total (7440-43-9)
6M. Copper, Total (7440-50-8)
7M. Lead, Total (7439-93-1)
10M. Selenium, Total (7782-49-2)
13M. Zinc, Total (7440-66-6)
15M. Phenols, Total
1V. Acrolein (107-02-8)
2V. Acrylonitrile (107-13-1)
3V. Benzene (71-43-2)
4V. Bis (Chloromethyl) Ether (542-88-1)
19V. Ethylbenzene (100-41-4)
25V. Toluene (108-88-3)
31V. Vinyl Chloride (75-01-4)
1B. Acenaphthene (83-32-9)
2B. Acenaphtylene (208-96-8)
3B. Anthracene (120-12-7)
5B. Benzo (a) Anthracene (56-55-3)
6B. Benzo (a) Pyrene (50-32-8)
7B. 3.4-Benzofluoranthene (205-99-2)
8B. Benzo (ghi) Perylene (191-24-2)
9B. Benzo (k) Fluoranthene (207-08-9)
18B. Chrysene (218-01-9)
19B. Dibenzo (a,h) Anthracene (53-70-3)
20B. 1,2-Dichlorobenzene (95-50-1)
21B. 1,3-Dichlorobenzene (541-73-1)
22B. 1,4-Dichlorobenzene (106-46-7)
23B. 3,3-Dichlorobenzidine (91-94-1)
31B. Fluoranthene (206-44-0)
32B. Fluorene (86-73-7)
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)
39B. Naphthalene (91-20-3)
40B. Nitrobenzene (98-95-3)
44B. Phenanthrene (85-01-8)
45B. Pyrene (129-00-0)
46B. 1,2,4 - Trichlorobenzene (120-82-1)

Koppers018538

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VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ *YES (identify the test(s) and their purposes below)* ☒ *NO (go to Item VIII)*

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ *YES (list the name, address, and telephone number of, pollutants analyzed by, each such laboratory or firm below)* ☐ *NO (go to Item VI-B)*

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Columbia Inspection Inc.	7133 Lombard Street Portland OR 97203	(503) 286-9464	see attached analysis

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE	B. PHONE NO. (area code & no.)
T.J. Turner General Foreman	(503) 286-3681
C. SIGNATURE	**D. DATE SIGNED**

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EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

V. INTAKE AND EFFLUENT CHARACTERISTIC

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

OUTFALL NO. 001

1. POLLUTANT	2. EFFLUENT							3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAILY VALUE (if available)		c. LONG TERM AVG. VALUE (if availalbe)		d. NO. OF ANAL-YSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANAL-YSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)	5.00	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	1.00
b. Chemical Oxygen Demand (COD)	31.00	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
c. Total Organic Carbon (TOC)	7.30	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
d. Total Suspended Solids (TSS)	9.00	0.00	0.00	0.00	0.00	0.00	1.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
e. Ammonia (as N)	6.60	0.00	0.00	0.00	0.00	0.00	1.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
f. Flow	VALUE 220000.00		VALUE 27000.00		VALUE 18000.00		14.00	U.S. gallons per day (gpd)		VALUE 0.00		0.00
g. Temperature (winter)	VALUE 22.20		VALUE 0.00		VALUE 0.00		2.00	DEGREES CELSIUS		VALUE 0.00		0.00
h. Temperature (summer)	VALUE 30.00		VALUE 30.00		VALUE 0.00		0.00	DEGREES CELSIUS		VALUE 0.00		0.00
i. pH	MINIMUM 6.33	MAXIMUM 0.00	MINIMUM 0.00	MAXIMUM 0.00			2.00	STANDARD UNITS				

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V. INTAKE AND EFFLUENT CHARACTERISTIC

PART B-Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly or indirectly but expressly in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See instructions for additional details and requirements.

OUTFALL NO. 001

1. POLLUTANT AND CAS NO. (If available)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAILY VALUE (if available)		c. LONG TERM AVG. VALUE (if availalbe)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
Bromide (24959-67-9)		X												
Chlorine, Total Residual		X												
Color	X		45.00	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Fecal Coliform	X		490.00	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Fluoride (16984-48-8)	X		0.20	0.03	0.00	0.00	0.00	0.00	3.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Nitrate - Nitrate (as N)	X		3.30	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Nitrogen, Total Organic (as N)		X												
Oil and Grease	X		9.00	14.92	9.00	14.92	2.00	0.29	20.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00

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V. INTAKE AND EFFLUENT CHARACTERISTIC

Phosphorus (as P), Total (7723-14-0)	X		0.60	0.88	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Radioactivity		X												
Alpha, Total		X												
Beta, Total		X												
Radium, Total		X												
Radium 226, Total		X												
Sulfrate (as SO 4) (14808-79-8)	X		7.30	10.66	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Sulfide (as S)		X												
Sulfite (as SO 3) (14265-45-3)		X												
Surfactants	X		0.28	0.41	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Aluminum, Total (7429-90-5)	X		0.08	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Barium, Total (7440-39-3)	X		0.03	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00

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V. INTAKE AND EFFLUENT CHARACTERISTIC

Boron, Total (7440-39-3)	X		0.03	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Cobalt, Total (7440-48-4)		X												
Iron, Total (7439-89-6)	X		1.50	1.46	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Magnesium, Total (7439-95-4)	X		5.20	7.59	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Molybdenum, Total (7439-98-7)		X												
Manganese, Total (7439-96-5)		X												
Tin, Total (7440-31-5)	X		0.04	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
Titanium, Total (7440-32-6)		X												

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V. INTAKE AND EFFLUENT CHARACTERISTIC

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2, 4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

OUTFALL NO. 001

(1) METALS, CYANIDE, AND TOTAL PHENOLS

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAILY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAILY VALUE (if available) (2) MASS	c. LONG TERM AVG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
1M. Antimony, Total (7440-36-0)	X		X												
2M. Arsenic, Total (7440-38-2)	X		X												
3M. Beryllium, Total (7440-41-7)	X		X												
4M. Cadmium, Total (7440-43-9)	X		X												
5M. Chromium, Total (7440-47-3)	X	X		0.02	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
6M. Copper, Total (7440-50-8)	X	X		0.02	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
7M. Lead, Total (7439-93-1)	X	X		0.01	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00

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V. INTAKE AND EFFLUENT CHARACTERISTIC

8M. Mercury, Total (7439-97-6)	X	X		1.10	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
9M. Nickel, Total (7440-02-0)	X		X												
10M. Selenium, Total (7782-49-2)	X	X		6.90	0.00	0.00	0.00	0.00	0.00	1.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
11M. Silver, Total (7440-22-4)	X		X												
12M. Thallium, Total (7440-28-0)	X		X												
13M. Zinc, Total (7440-66-6)	X	X		6.30	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
14M. Cyanide, Total (57-12-5)	X	X		0.01	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
15M. Phenols, Total	X	X		0.86	1.26	0.86	1.26	0.15	0.04	14.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)															

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V. INTAKE AND EFFLUENT CHARACTERISTIC

OUTFALL NO. 001

(2) GC/MS FRACTION - VOLATILE COMPOUNDS

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAILY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
1V. Acrolein (107-02-8)	X		X												
2V. Acrylonitrile (107-13-1)	X		X												
3V. Benzene (71-43-2)	X	X		29.00	0.04	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
4V. Bis (Chloromethyl) Ether (542-88-1)	X		X												
5V. Bromoform (75-25-2)	X		X												
6V. Carbon Tetrachloride (56-23-5)	X		X												
7V. Chlorobenzene (108-90-7)	X		X												
8V. Chlorodibromomethane	X		X												
9V. Chloroethane (75-00-3)	X		X												

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V. INTAKE AND EFFLUENT CHARACTERISTIC

10V. Chloroethylvinyl Ether (110-75-8)	X		X												
11V. Chloroform (67-66-3)	X		X												
12V. Dichlorobromomethane	X		X												
13V. Dichlorodifluoromethane	X		X												
14V. 1,1-Dichloroethane (75-34-3)	X		X												
15V. 1,2-Dichloroethane (107-06-2)	X		X												
16V. 1,1-Dichloroehylene (75-35-4)	X		X												
17V. 1,2-Dichloropropane (78-87-5)	X		X												
18V. 1,3-Dichloropropylene	X		X												
19V. Ethylbenzene (100-41-4)	X	X		0.02	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
20V. Methyl Bromide (73-84-9)	X		X												
21V. Methyl Chloride (74-87-3)	X		X												

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V. INTAKE AND EFFLUENT CHARACTERISTIC

22V. Methylene Chloride (75-09-2)	X		X												
23V. 1,1,2,2-Tetrachloroethane	X		X												
24V. Tetrachloroethylene (127-18-4)	X		X												
25V. Toluene (108-88-3)	X	X		0.47	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
26V. 1,2-TransDichloroethylene	X		X												
27V. 1,1,1-Trichloroethane (71-55-6)	X		X												
28V. 1,1,2-Trichloroethane (79-00-5)	X		X												
29V. Trichloroethylene (79-01-6)	X		X												
30V. Trichlorofluoromethane	X		X												
31V. Vinyl Chloride (75-01-4)	X		X												

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EPA I.D. NUMBER (copy from Item 1 of Form 1)
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V. INTAKE AND EFFLUENT CHARACTERISTIC

OUTFALL NO. 001

(3) GC/MS FRACTION - ACID COMPOUNDS

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAILY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
1A. 2-Chlorophenol (95-57-8)	X		X												
2A. 2,4-Dichlorophenol (120-83-2)	X		X												
3A. 2,4-Dimethylphenol (105-67-9)	X		X												
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X		X												
5A. 2,4-Dinitrophenol (51-28-5)	X		X												
6A. 2-Nitrophenol (88-75-5)	X		X												
7A. 4-Nitrophenol (100-02-7)	X		X												
8A. P-Cholro-M-Cresol (59-50-7)	X		X												
9A. Pentachlorophenol (87-86-5)	X		X												

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V. INTAKE AND EFFLUENT CHARACTERISTIC

10A. Phenol (108-95-2)	X	X		0.02	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
11A. 2,4,6-Trichlorophenol (88-06-2)	X		X												

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V. INTAKE AND EFFLUENT CHARACTERISTIC

OUTFALL NO. 001

(4) GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAILY VALUE (if available)		c. LONG TERM AVG. VALUE (if availalbe)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
1B. Acenaphthene (83-32-9)	X	X		0.01	0.00	0.00	0.00	0.00	0.00	1.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
2B. Acenaphtylene (208-96-8)	X		X												
3B. Anthracene (120-12-7)	X	X		0.01	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
4B. Benzidine (92-87-5)	X		X												
5B. Benzo (a) Anthracene (56-55-3)	X	X		0.01	0.03	0.00	0.00	0.00	0.00	1.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
6B. Benzo (a) Pyrene (50-32-8)	X	X		0.02	0.00	0.00	0.00	0.00	0.00	1.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
7B. 3.4-Benzofluoranthene	X		X												
8B. Benzo (ghi) Perylene (191-24-2)	X	X		0.02	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
9B. Benzo (k) Fluoranthene (207-08-9)	X		X												

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V. INTAKE AND EFFLUENT CHARACTERISTIC

10B. Bis (2-Chloroethoxy) Methane (111-91-1)	X		X												
11B. Bis (2-Chloroethyl) Ether (111-44-4)	X		X												
12B. Bis (2-Chloroisopropyl) Ether (102-60-1)	X		X												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	X		X												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X		X												
15B. Butyl Benzyl Phthalate (85-68-7)	X		X												
16B. 2-Chloronaphthaiene (91-58-7)	X		X												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X		X												
18B. Chrysene (218-01-9)	X	X		0.02	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
19B. Dibenzo (a,h) Anthracene (53-70-3)	X		X												
20B. 1,2-Dichlorobenzene (95-50-1)	X		X												
21B. 1,3-Dichlorobenzene (541-73-1)	X		X												

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V. INTAKE AND EFFLUENT CHARACTERISTIC

22B. 1,4-Dichlorobenzene (106-46-7)	X		X												
23B. 3,3-Dichlorobenzidine	X		X												
24B. Diethyl Phthalate (84-66-2)	X	X		0.01	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
25B. Dimethyl Phthalate (131-11-3)	X		X												
26B. Di-N-Butyl Phthalate (84-74-2)	X		X												
27B. 2,4-Dinitrotoluene (121-14-2)	X		X												
28B. 2,6-Dinitrotoluene (606-20-2)	X		X												
29B. Di-N-Octyl Phthalate (117-84-0)	X		X												
30B. 1,2-Diphenylhydrazine (122-66-7)	X		X												
31B. Fluoranthene (206-44-0)	X	X		0.03	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
32B. Fluorene (86-73-7)	X	X		0.01	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
33B. Hexachlorobenzene (118-74-1)	X		X												

Koppers018553

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

V. INTAKE AND EFFLUENT CHARACTERISTIC

34B. Hexachlorocyclobutadiene	X		X												
35B. Hexachlorocyclopentadiene	X		X												
36B. Hexachloroethane (67-72-1)	X		X												
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X	X		0.01	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
38B. Isophorone (78-59-1)	X		X												
39B. Naphthalene (91-20-3)	X	X		0.35	0.00	0.00	0.00	0.00	0.00	2.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
40B. Nitrobenzene (98-95-3)	X		X												
41B. N-Nitrosodimethylamine	X		X												
42B. N-Nitrosodi-N-Propyl amine	X		X												
43B. N-NitroSodiphenylamine	X		X												
44B. Phenanthrene (85-01-8)	X	X		0.02	0.00	0.00	0.00	0.00	0.00	1.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00
45B. Pyrene (129-00-0)	X	X		0.02	0.00	0.00	0.00	0.00	0.00	0.00	milligrams per liter (mg/l)	pounds (lbs)	0.00	0.00	0.00

Koppers018554

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

V. INTAKE AND EFFLUENT CHARACTERISTIC															
46B. 1,2,4 - Trichlorobenzene (120-82-1)	X		X												

Koppers018555

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

V. INTAKE AND EFFLUENT CHARACTERISTIC

OUTFALL NO. 001

(5) GC/MS FRACTION - PESTICIDES

1. POLLUTANT AND CAS NO. (If available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAILY VALUE (If available)		c. LONG TERM AVG. VALUE (If availalbe)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
1P. Aldrin (309-00-2)	X		X												
2P. Alpha-BHC (319-84-6)	X		X												
3P. Beta-BHC (319-85-7)	X		X												
4P. Gamma-BHC (58-89-9)	X		X												
5P. Delta-BHC (319-86-8)	X		X												
6P. Chlordane (57-74-9)	X		X												
7P. 4,4' - DDT (50-29-3)	X		X												
8P. 4,4' - DDE (72-55-9)	X		X												
9P. 4,4' - DDD (72-54-8)	X		X												

Koppers018556

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

V. INTAKE AND EFFLUENT CHARACTERISTIC

10P. Dieldrin (60-57-1)	X		X												
11P. Alpha-Endosulfan (115-29-7)	X		X												
12P. Beta-Endosulfan (115-29-7)	X		X												
13P. Endosulfan Sulfate (1031-07-8)	X		X												
14P. Endrin (72-20-8)	X		X												
15P. Endrin Aldehyde (7421-93-4)	X		X												
16P. Heptachlor (76-44-8)	X		X												
17P. Heptachlor Epoxide (1024-57-3)	X		X												
18P. PCB-1242 (53469-21-9)	X		X												
19P. PCB-1254 (11097-69-1)	X		X												
20P. PCB-1221 (11104-28-2)	X		X												
21P. PCB-1232 (11141-16-5)	X		X												

Koppers018557

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

V. INTAKE AND EFFLUENT CHARACTERISTIC															
22P. PCB-1248 (12672-29-6)	X		X												
23P. PCB-1260 (11096-82-5)	X		X												
24P. PCB-1016 (12674-11-2)	X		X												
25P. Toxaphene (8001-35-2)	X		X												

Koppers018558

EPA I.D. Number (copy from item 1 of Form 1)	*Form Approved*	This permit application
ORD027734359	*OMB No. 2000-0060*	form was electronically
	Approval expires 3-31-86	generated by P.A.S.S.

FORM 2F NPDES **EPA**

Application for Permit to Discharge Stormwater Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number *(list)*	B. Latitude			C. Longitude			D. Receiving Water *(name)*
	Deg.	Min.	Sec.	Deg.	Min.	Sec.	

II. Improvements

A. Are you now required by any Federal, State, or local authority only to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls	3. Brief Description of Project	4. Final Compliance Date	
			a. req	b. proj

B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

1. Project Description	2. Project Schedule	3. Project Underway

Koppers018559

EPA I.D. Number (copy from item 1 of Form 1)	*Form Approved*	This permit application
ORD027734359	*OMB No. 2000-0060*	form was electronically
	Approval expires 3-31-86	generated by P.A.S.S.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed, in the last three years, to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce poilutants in storm water runoff; and a description of the treatment the storm water receives including the schedule and type of maintenance for contr ol and treatment measures and the ultimate disposal of any solid or fluid wastes othar than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1

V. Nonstormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name and Official Title (type or print)	Signature	Date Signed

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

Koppers018560

EPA I.D. Number (copy from item 1 of Form 1)	*Form Approved*	This permit application
ORD027734359	*OMB No. 2000-0060*	form was electronically
	Approval expires 3-31-86	generated by P.A.S.S.

VII. Discharge Information

A, B, C & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.

Parts VII-A, VII-B, VII-C, and VII-D will be printed at the end of the permit application.

E: Potential discharges not covered by analysis - Is any pollutant listed in Table 2F-2 a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes *(list all such pollutants below)* ☒ No *(go to Section IX)*

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes *(list all such pollutants below)* ☒ No *(go to Section IX)*

A. Test Name	B. Test Description

IX. Contract Analysis Information

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ Yes *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ No *(go to Section X)*

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those person directly responsible for gathering the information, the information submitted is, to the best of my knowledge an belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

A. Name and Official Title (type or print)	B. Area Code & Phone No.
C. Signature	D. Date Signed

Koppers018561

EPA I.D. Number (copy from item 1 of Form 1)	*Form Approved*	This permit application
ORD027734359	*OMB No. 2000-0060*	form was electronically
	Approval expires 3-31-86	generated by P.A.S.S.

Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measureable rain event.	5. Maximum floe rate from rain event *(gallons or specify units)*	6. Total flow from rain event *(gallons or specify units)*	7. Season sample was taken	8. Form of Precipitation *(rainfall, snowmelt)*

9. Provide a description of the method of flow measurement or estimate.

Koppers018562

KOPPERS

Koppers Inc.
Carbon Materials and Chemicals
7540 NW Saint Helens Road
Portland, OR 97210-3663
Tel 503 286 3681
Fax 503 285 2831
www.koppers.com

August 20, 2004

Elliot J. Zais, PhD, PE
Senior Environmental Engineer
Oregon DEQ
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, Oregon 97201-4987

RECEIVED
AUG 20 2004
DEPT OF ENVIRONMENTAL QUALITY
NORTHWEST REGION

Subject: NPDES Permit File No. 47430

Dear Elliott:

Koppers Inc. is in receipt of the "Applicant Review Draft" (DRAFT) for NPDES Permit Renewal for Koppers NPDES permit file No. 47430 and submits the following comments:

Page 8 of 15-Statewide Narrative Criteria

Conclusion states that Koppers will likely add a granular activated carbon treatment system.

Koppers Comment:

Koppers Inc. has operated within permit limits as required by permit 101642, issued February 3, 1999, with little or no exceedances during the permit period. Koppers also is a tenant of NWNG and should not be held accountable for any contamination that may or may not exist. Koppers request that the limits specified in the previous permit remain with out addition or reduction of parameters or permit limits.

Page 13 of 15-Toxic Substances

Conclusion: ODEQ concludes that based on discussion with the Department's cleanup Program additional monitoring requirements are being included for one year for all pollutants mentioned on page 5. The results of this monitoring will be used to determine whether Koppers wastewater requires further treatment before discharge or whether additional effluent limitations need to be established.

Koppers Comment:

Koppers discharge is stormwater only and does not include process water and should not be held accountable for the clean up program of a non-related responsible party. The site is undergoing corrective action/remediation and any clean up should be handled by ODEQ through that program and not imposed on Koppers through the NPDES permit process. ODEQ has stated in the evaluation report that the Koppers discharge is small and should not impact the Willamette so if there is some pollutant in the discharge associated with NWNG it impact should be negligible. Therefore there is no justification for imposing more stringent PAH limits or additional monitoring requirements.

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6957
TTY (503) 229-5471

6 August 2004

Amos Kamerer
Koppers Inc.
7540 NW St. Helens Road
Portland OR 97210

Final Date for Submission of
Written Comments: 23 August 2004

Re: NPDES Permit
File No. 47430
Northwest Terminal
Multnomah County

Your application for renewal of your National Pollutant Discharge Elimination System (NPDES) permit has been reviewed by the Department of Environmental Quality and a proposed NPDES permit has been drafted. You are invited to review the attached copy and submit any comments you may have in writing prior to the date indicated above. A copy of the permit evaluation report is also enclosed.

Other information which will be distributed to the public is enclosed for your review. Your comments on the content of this information will also be appreciated.

After your comments, if any, have been received, the public notice regarding your application will be circulated to interested individuals and organizations. The proposed permit will also be made available to those persons requesting it. After the public review and participation period is over, final action will be taken on your application.

If you have any comments or questions, please call me at (503) 229-5292.

Sincerely,

Elliot J. Zais

Elliot J. Zais, PhD, PE
Senior Environmental Engineer
Water Quality Source Control
Northwest Region

Enclosures
cc: File
Traci Self

AUG 13 2004

DEQ-DC1

APPLICANT REVIEW DRAFT

FACT SHEET
and
NPDES WASTE DISCHARGE PERMIT EVALUATION

6 August 2004

Department of Environmental Quality - Northwest Region
2020 SW 4th Avenue, Portland OR 97201-4987
Telephone: (503) 229-5263

APPLICANT REVIEW

PERMITTEE: Koppers Industries, Inc.
Northwest Terminal
File No. 47430

SOURCE CONTACT:

Name	Phone Number
T. J. Turner	503/286-3681

REVIEWER: Elliot Zais, Northwest Region

TO: Neil Mullane, Manager
Water Quality Program, Northwest Region

PROPOSED ACTION:. Permit Renewal

SOURCE CATEGORY: Coal Tar Products Pitch Terminal
Minor Industrial Source

PERMIT APPLICATION DATE: 9 August 2003

PERMIT APPLICATION NUMBER: 984280

EPA REFERENCE NUMBER: OR 000077-9

INTRODUCTION

Koppers Industries, Inc. (Koppers) operates a storage and distribution terminal for pencil pitch, located at 7540 NW St. Helens Road in Portland, Oregon.

Koppers' NPDES permit expired on 31 January 2004.

FACILITY DESCRIPTION AND UPDATE

Koppers Northwest Terminal occupies a 2.6 hectare site on the Willamette River at RM 6.5. Much of the site is a tank farm. Coal tar pitch and other related products are shipped into the terminal via railroad tank cars or via bulk cargo ships. These products are either stored or further remanufactured prior to distribution. Outbound shipments are made via tank truck or railroad. The tank farm is split into two sections: the majority of the tanks are located in the main tank containment area, the floor of which is about 1.2 to 1.8 meters below the local ground surface level; a smaller number of tanks are located adjacent to the main tank containment area at ground surface level. These tanks are all provided with containment walls, and all storm drainage goes into the main containment area. Storm drainage from the parking area goes into the main containment area as well.

A boiler to provide steam to tank heaters is located on site outside of the main containment area. Boiler blowdown is discharged to the ground surface and drains to the main containment area. Boiler condensate from the tank heaters also discharges into the main containment area.

Most of the site is paved, including all material loading and unloading areas. Water which contacts the pavement anywhere on site runs to a nearby sump. The sumps contain floats and water pumps. When the water level within the sump reaches a predetermined level, the pump is activated and the water is sent to the main sump located near the water storage tanks. There is an oil-water separator in the main sump. The water in the main sump is pumped into one of six wastewater storage tanks. When a tank becomes full, the water within it is tested as specified in the permit. When the test results are received, the water is released to the Willamette River if it meets discharge requirements.

The purpose of this NPDES permit is to prescribe effluent limitations for wastewater discharged into the Willamette River.

UNIQUE OPERATING CONDITIONS AND PROBLEMS

None.

STORM WATER

Storm water is managed under this individual NPDES permit.

OUTFALL

The outfall is a public storm drainage ditch which drains to City of Portland Outfall 22C which discharges to the Willamette River.

THREATENED AND ENDANGERED SPECIES REVIEW

The following analysis is taken from the draft Total Maximum Daily Load document for the Lower Willamette Basin.

Sensitive Beneficial Use Identification

Oregon Administrative Rules (OAR 340 – 41 – 340, Table 340A) lists the beneficial uses occurring within the Willamette River Basin tributaries and are applicable to streams within the Lower Willamette Subbasin. Resident fish and aquatic life and salmonid spawning, rearing and migration are the most sensitive temperature-related beneficial uses occurring in the watershed (**Table 3.4**). Beneficial uses highlighted in grey are known or assumed to be occurring. Beneficial uses and the associated water quality standards are generally applicable basin-wide. At a minimum, uses are considered attainable wherever feasible or wherever attained historically. Numeric and narrative water quality standards are designed to protect the most sensitive beneficial uses.

Salmonid fish rearing and spawning are the most temperature-sensitive beneficial uses in the Lower

The distribution of fish in the subbasin varies through the year and temperature impairment is in part a function of fish habitat requirements and usage. In addition to the salmonid timing and use information provided on OAR 340, Division 41, detailed timing and use information is provided for the Columbia Slough, Johnson Creek and Tryon Creek in **Sections 5.3.2 through 5.3.4**, below.

Table 3.4. Beneficial Uses Occurring in the Willamette River Basin Tributaries (OAR 340 – 41 – 340, Table 340A)

Beneficial Use	Clackamas R.	Molalla R.	Santiam R.	McKenzie R.	Tualatin R.	All Other Tributaries
Public Domestic Water Supply [1]	✓	✓	✓	✓	✓	✓
Private Domestic Water Supply [1]	✓	✓	✓	✓	✓	✓
Industrial Water Supply	✓	✓	✓	✓	✓	✓
Irrigation	✓	✓	✓	✓	✓	✓
Livestock Watering	✓	✓	✓	✓	✓	✓
Anadromous Fish Passage	✓	✓	✓	✓	✓	✓
Salmonid Fish Rearing	✓	✓	✓	✓	✓	✓
Salmonid Fish Spawning	✓	✓	✓	✓	✓	✓
Resident Fish and Aquatic Life	✓	✓	✓	✓	✓	✓
Wildlife and Hunting	✓	✓	✓	✓	✓	✓
Fishing	✓	✓	✓	✓	✓	✓
Boating	✓	✓	✓	✓	✓	✓
Water Contact Recreation	✓	✓	✓	✓	✓	✓
Aesthetic Quality	✓	✓	✓	✓	✓	✓
Hydro Power	✓	✓	✓	✓	✓	✓

[1] With adequate pretreatment (filtration and disinfection) and natural quality to meet water quality standards.

POLLUTANTS DISCHARGED AND PROPOSED LIMITS

The runoff discharged from the site is regulated for oil and grease, phenols, and pH. In addition, monitoring is required for flow, temperature, and polynuclear aromatic hydrocarbons (PAHs).

The Koppers facility is located on the former Portland Gas and Coke Company (Gasco) site (35 acres) which was a manufactured gas plant and oil gasification facility from 1913 to 1956. Waste from this manufacturing process was disposed of on site. Northwest Natural is the successor company to Gasco. Siltronic has built a chip fabrication plant on a large portion of the site. In August 1994 Northwest Natural entered into an agreement with the Department to conduct a remedial investigation and feasibility study at the site. Phase I was completed in March 1996. The investigation is still continuing. Hazardous substances associated with the manufacturing gas waste that could be a concern in storm water include:

- Cyanide
- Priority pollutant metals silver, arsenic, beryllium, cadmium, copper, mercury, nickel, lead, tin, selenium, titanium, and zinc (Ag, As, Be, Cd, Cu, Hg, Ni, Pb, Sb, Se, Ti, and Zn)
- Tars, tar oils and various petroleum distillants
- Polynuclear aromatic hydrocarbons (PAHs)
- Phenols

Individual NPDES permits always include some variant of the following "notwithstanding clause:

> Notwithstanding the effluent limitations established by this permit, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR 340-41.

If concerns about previously unspecified pollutants come to the Department's attention, the Department can set limits for these pollutants and include them in Schedule A during permit renewal or by modifying the permit. The NPDES permit for Koppers already has effluent limitations and monitoring requirements for PAHs and phenols. For this renewal, we will require monitoring for the other pollutants in the above list plus pesticides for one year. If the results indicate a problem for certain pollutants, then we will set permit limits for those pollutants.

In order to issue a permit, the Department must perform a review per the requirements of OAR 340-041-0004. The Department must determine that the discharge will not cause or contribute to any water quality violations before allowing a new mass load discharge. This is a not a new or increased load, but the review is still useful. Below is a listing of the required findings and considerations, followed by the Department's conclusions:

340-041-0004 Antidegradation.

(1) Purpose. The purpose of the Antidegradation Policy is to guide decisions that affect water quality such that unnecessary further degradation from new or increased point and nonpoint sources of pollution is prevented, and to protect, maintain, and enhance existing surface water quality to ensure the full protection of all existing beneficial uses. The standards and policies set forth in OAR 340-041-0007 through 340-041-0350 are intended to supplement the Antidegradation Policy.

> Conclusion. The NPDES permit for Kopper's discharge is a permit renewal with no increase in discharged load. Permit renewals with the same discharge load as the previous permit are not considered to lower water quality from existing water quality. Thus, the Department finds that the discharge is not subject to an in-depth antidegradation review. (*Antidegradation Policy Implementation Internal Management Directive for NPDES Permits and Section 401 Water Quality Certifications, ODEQ March 2001*).

(2) Growth Policy. In order to maintain the quality of waters in the State of Oregon, it is the general policy of the Commission to require that growth and development be accommodated by increased efficiency and effectiveness of waste treatment and control such that measurable future discharged waste loads from existing sources do not exceed presently allowed discharged loads except as provided in section (3) through (9) of this rule.

> Conclusion. Based on discussions with the Department's Cleanup Program, permit limits for PAHs have been lowered significantly. This will require the facility to install an efficient, effective treatment system, such as a granular activated carbon unit, to meet the limits. See further discussion below under Toxic Substances.

(9)(a)(C) The continuing discharged load will not unacceptably threaten or impair any recognized beneficial uses or adversely affect threatened or endangered species. In making this determination, the Commission or Department may rely upon the presumption that if the numeric criteria established to protect specific uses are met the beneficial uses they were designed to protect are protected. In making this determination the Commission or Department may also evaluate other State and federal agency data that would provide information on potential impacts to beneficial uses for which the numeric criteria have not been set.

> Conclusion. Based on the above review under Purpose stating that the load will not be increased and the new effluent limits being set, the Department believes that the continuing load will not unacceptably threaten or impair any recognized beneficial uses. There will be no load increases in this permit renewal.

(9)(b) The activity, expansion or growth necessitating a new or increased discharge load is consistent with the acknowledged local land use plans as evidenced by a statement of land use compatibility from the appropriate local planning agency.

Conclusion. Koppers has filed a land use compatibility statement with the City of Portland. It has been approved.

(9)(c) Oregon's water quality management policies and programs recognize that Oregon's water bodies have a finite capacity to assimilate waste. Unused assimilative capacity is an exceedingly valuable resource that enhances in-stream values and environmental quality in general. Allocation of any unused assimilative capacity should be based on explicit criteria. In addition to the conditions in subsection (a) of this section, the Commission or Department may consider the following:

(A) Environmental Effects Criteria:

(i) Adverse Out-of-Stream Effects. There may be instances where the discharge or limited discharge alternatives may cause greater adverse environmental effects than the increased discharge alternative.

Conclusion. Not applicable to this situation.

(ii) Instream Effects. Total stream loading may be reduced through elimination or reduction of other source discharges or through a reduction in seasonal discharge. A source that replaces other sources, accepts additional waste from less efficient treatment units or systems, or reduces discharge loadings during periods of low stream flow may be permitted an increased discharge load year-round or during seasons of high flow, so long as the loading has no adverse effect on threatened and endangered species;

Conclusion. Not applicable to this situation.

(iii) Beneficial Effects. Land application, upland wetlands application, or other non-discharge alternatives for appropriately treated wastewater may replenish groundwater levels and increase streamflow and assimilative capacity during otherwise low streamflow periods.

Conclusion. Not applicable to this situation.

(9)(c)(B) Economic Effects Criteria:

(i) Value of Assimilative Capacity. The assimilative capacity of Oregon's streams is finite, but the potential uses of this capacity are virtually unlimited. Thus it is important that priority be given to those beneficial uses that promise the greatest return (beneficial use) relative to the unused assimilative capacity that might be utilized. In-stream uses that

benefit from reserve assimilative capacity, as well as potential future beneficial use, will be weighed against the economic benefit associated with increased loading.

Conclusion. The assimilative or loading capacity is defined as "the greatest amount of loading that a water body can receive without violating water quality standards." There was one exceedance of the phenol limitation during the last permit cycle. None of the laboratory data submitted with the renewal application suggest that the discharge will use any significant portion of the assimilative capacity. There will be no increase in assimilative capacity use. The current discharge equals less than 0.006 percent of the Willamette River's flowrate, i.e., about 0.010 m^3/s vs. and 7Q10 flowrate of 167 m^3/s.

(ii) Cost of Treatment Technology. The cost of improved treatment technology, nondischarge, and limited discharge alternatives may be evaluated.

Conclusion. Non-discharge is not a practical alternative to discharge because of the large volumes of water involved. Evaporation of the water would be prohibitively expensive as well as wasting fuel if heating was used to cause evaporation. There is no place where the water could be used for irrigation. The currently used technology is appropriate.

As with all NPDES permits issued for facilities that propose to discharge wastewater to waters of the state, the proposed draft permit for the Koppers facility was drafted to ensure that all state wide water quality standards contained in OAR 340-041-0007 through 340-041-0053 and all basin-specific water quality standards would be achieved.

Each of the parameters listed is discussed below followed by the conclusions reached during this review.

340-041-0007
Statewide Narrative Criteria

(1) Notwithstanding the water quality standards contained in this Division, the highest and best practicable treatment and/or control of wastes, activities, and flows must in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor, and other deleterious factors at the lowest possible levels.

Conclusion. The currently used technology is appropriate. The water to be discharged is held in tanks to allow settling of any suspended material and is tested before it is allowed to be discharged. In order to meet the new effluent limitations, Koppers will likely add a granular activated carbon treatment system.

(2) Where a less stringent natural condition of a water of the State exceeds the numeric criteria set out in this Division, the natural condition supersedes the numeric criteria and becomes the standard for that water body. However, there are special restrictions, described in OAR 340-041-0004(9)(a)(C)(iii), that may apply to discharges that affect dissolved oxygen.

Conclusion. Not applicable in this situation. No less stringent natural condition has been identified. Therefore, the established numeric criteria will be used for this site.

(11) Fungi.

Conclusion. The Koppers facility's discharge is not expected to contain fungi or to promote their growth.

(12) Tastes or odors.

Conclusion. The Koppers facility's discharge is not expected to create tastes or odors or toxic or other conditions deleterious to aquatic life or to affect potability of drinking water or palatability of fish or shellfish.

(13) Deposits.

Conclusion. Wastewater is held in storage tanks until it is tested before discharge. The residence time allows solids to settle out. The Koppers facility's discharge is not expected to contain material which would cause appreciable deposition in the river. Furthermore, the likely granular activated carbon system will remove solids very efficiently.

(14) and (15) Objectionable conditions and offensive aesthetic conditions.

Conclusion. Based on previous operation or on knowledge of similar facilities, the Koppers facility's discharge is not expected to cause offensive aesthetic conditions.

(16) Radioisotopes.

Conclusion. No radioactive materials are used in the facility's processes. The Koppers facility's discharge is not expected to contain radioisotopes.

340-041-0009
Bacteria

Conclusion. There is no sewage connected with this discharge. The portion of the Koppers facility's discharge involving boiler blowdown is not expected to contain bacteria. However, because the runoff water is exposed to the elements, it may contain bacteria from animal droppings. The general storm water permit does not have limitations on bacteria for facilities such as Koppers. See further discussion below in the Water Quality Limited Waters section.

340-041-0016
Dissolved Oxygen
(1) Dissolved oxygen (DO): No wastes may be discharged and no activities must be conducted that either alone or in combination with other wastes or activities will cause violation of the following standards: The changes adopted by the Commission on January 11, 1996, become effective July 1, 1996. Until that time, the requirements of this rule that were in effect on January 10, 1996, apply:
(a) For water bodies identified as active spawning areas in the places and times indicated on the following Tables and Figures set out in OAR 340-041-0101 to OAR 340-041-0340: Tables 101B, 121B, 180B, 201B and 260B, and Figures 130B, 151B, 160B, 170B, 220B, 230B, 271B, 286B, 300B, 310B, 320B, and 340B, (as well as any active spawning area used by resident trout species), the following criteria apply during the applicable spawning through fry emergence periods set forth in the tables and figures:
(A) The dissolved oxygen may not be less than 11.0 mg/l. However, if the minimum intergravel dissolved oxygen, measured as a spatial median, is 8.0 mg/l or greater, then the DO criterion is 9.0 mg/l;
(B) Where conditions of barometric pressure, altitude, and temperature preclude attainment of the 11.0 mg/l or 9.0 mg/l criteria, dissolved oxygen levels must not be less than 95 percent of saturation;
(C) The spatial median intergravel dissolved oxygen concentration must not fall below 8.0 mg/l.
(b) For water bodies identified by the Department as providing cold-water aquatic life, the dissolved oxygen may not be less than 8.0 mg/l as an absolute minimum. Where conditions of barometric pressure, altitude, and temperature preclude attainment of the 8.0 mg/l, dissolved oxygen may not be less than 90 percent of saturation. At the discretion of the Department, when the Department determines that adequate information exists, the dissolved oxygen may not fall below 8.0 mg/l as a 30-day mean minimum, 6.5 mg/l as a seven-day minimum mean, and may not fall below 6.0 mg/l as an absolute minimum (Table 21);
(c) For water bodies identified by the Department as providing cool-water aquatic life, the dissolved oxygen may not be less than 6.5 mg/l as an absolute minimum. At the discretion of the Department, when the Department determines that adequate information exists, the dissolved oxygen may not fall below 6.5 mg/l as a 30-day mean minimum, 5.0 mg/l as a seven-day minimum mean, and may not fall below 4.0 mg/l as an absolute minimum (Table 21);
(d) For water bodies identified by the Department as providing warm-water aquatic life, the dissolved oxygen may not be less than 5.5 mg/l as an absolute minimum. At the discretion of the

Department, when the Department determines that adequate information exists, the dissolved oxygen may not fall below 5.5 mg/l as a 30-day mean minimum, and may not fall below 4.0 mg/l as an absolute minimum (Table 21);
(e) For estuarine water, the dissolved oxygen concentrations may not be less than 6.5 mg/l (for coastal water bodies);
(f) For ocean waters, no measurable reduction in dissolved oxygen concentration may be allowed.

Conclusion. The applicant provided chemical analyses of their wastewater. The highest BOD_5 value was 5 mg/L. Based on the pollutants in the Koppers facility's wastewater and a review of previous monitoring data, this discharge will not have a substantive BOD load.

340-041-0021
pH
(1) Unless otherwise specified in OAR 340-041-0101 through 340-041-0350, pH values (Hydrogen ion concentrations) may not fall outside the following ranges:
(a) Marine waters: 7.0 – 8.5;
(b) Estuarine and fresh waters: 6.5 – 8.5.
(2) Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria are not in violation of the standard, if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria.

Willamette Basin
(1) pH (hydrogen ion concentration). pH values may not fall outside the following ranges:
(a) All basin waters (except main stem Columbia River and Cascade lakes): 6.5 to 8.5;

Conclusion. The DMR data from 2000 through 2003 showed a pH minimum of 6.0 with a maximum of 8.6. The average of daily average readings was 6.9. Only three values were between 6.0 and 6.5 and only one was over 8.5. The runoff water is not expected to have a pH outside the range 6.5 -8.5.

340-041-0028
Temperature

(4) Biologically Based Numeric Criteria. Unless superseded by the natural conditions criteria described in section (8) of this rule, or by subsequently adopted site-specific criteria approved by EPA, the temperature criteria for State waters supporting salmonid fishes are as follows:

(d) The seven-day average maximum temperature of a stream identified as having a migration corridor use...may not exceed 20.0 degrees Celsius (68.0 degrees Fahrenheit).

(8) Natural Conditions Criteria. Where the department determines that the natural thermal potential of all or a portion of a water body exceeds the biologically-based criteria in section (4) of this rule, the natural thermal potential temperatures supersede the biologically-based criteria, and are deemed to be the applicable temperature criteria for that water body.

Conclusion. The discharge from Koppers is so small that no temperature wasteload allocation is planned for it in the Willamette River TMDL which is planned for promulgation in 2004. The facility will be required to monitor for temperature. The average temperature reported on DMRs from 2000 through 2003 was 13 °C. There were three instances of temperatures over 20 °C. The maximum temperature was 23.9 °C. There is no reason to retain the previous high temperature limitation. The temperature effluent limitation will be lowered from 43.3 °C to 25 °C. We conclude that there is no reasonable potential for the facility to violate the temperature standard.

340-041-0031
Total Dissolved Gas.
(1) Waters will be free from dissolved gases, such as carbon dioxide hydrogen sulfide, or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such water

Conclusion. Water cascading over dams commonly entrains air to a supersaturated level. Elevated TDG can cause gas bubble disease in aquatic organisms. There is no gas used or generated at this facility. The Koppers facility's discharge is not expected to cause increases of dissolved gases in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of the receiving water.

340-041-0032
Total Dissolved Solids
The concentrations listed below may not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary: All Fresh Water Streams and Tributaries - 100 mg/L.

Willamette Basin. 340-041-0345 (2) Total Dissolved Solids. Guide concentrations listed may not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in OAR 340-041-0340: Willamette River and Tributaries —100.0 mg/l.

Conclusion. Coal tar pitch has negligible solubility according to the Cornell University Material Safety Data Sheet for coal tar pitch. The Koppers facility's effluent is not expected to contain significant amounts of dissolved solids.

340-041-0033
Toxic Substances

(1) Toxic substances may not be introduced above natural background levels in the waters of the State in amounts, concentrations, or combinations that may be harmful, may chemically change to harmful forms in the environment, or may accumulate in sediments or bioaccumulate in aquatic life or wildlife to levels that adversely affect public health, safety or welfare, aquatic life, wildlife, or other designated beneficial uses;

(2) Levels of toxic substances may not exceed the criteria listed in Table 20 which were based on criteria established by EPA and published in *Quality Criteria for Water* (1986), unless otherwise noted

Many toxic substances have limits set in OAR 340-041-Table 20. When appropriate, these limits are explicitly stated in NPDES permits. Some toxics are explicitly dealt with in promulgated TMDLs. See discussion below.

Conclusion. Based on discussions with the Department's Cleanup Program, additional monitoring requirements are being included for one year for all of the pollutants mentioned on page 5. The results of this monitoring will be used to determine whether Koppers's wastewater requires further treatment before discharge or whether additional effluent limitations need to be established.

340-041-0036
Turbidity

Turbidity (Nephelometric Turbidity Units, NTU): No more than a ten percent cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity.

Conclusion. Wastewater generally settles in tanks for several days before it is discharged. All of the pollutants that have been sampled for are either present in low concentrations or are not detected. We have not received reports of visible plumes from the facility. Based on these considerations, the discharge from the discharge from the Koppers facility is not expected to affect instream turbidity.

340-041-0046

Water Quality Limited Waters

(5) For water bodies designated as water quality limited under OAR 340-041-0002(62)(b), requests for load increases may be considered using the process set out in OAR 340-041-0004(9)(a) [

Conclusion: The Willamette River is water quality limited for the following parameters:

	Maximum reported at facility	Fresh chronic WQ standards
Fecal Coliform	490 cfu/100 mL	
Dieldrin	ND >4 µg/L	0.0019 µg/L
DDT	ND >8 µg/L	0.001 µg/L
DDT Metabolite (DDE)	ND >0.004 mg/L	---
Polynuclear Aromatic Hydrocarbons	159 µg/L	
Biological Criteria	------	
Mercury	1.1 µg/L	0.012 µg/L
Aldrin	ND >0.004 mg/L	---
Temperature	23.9 °C	
PCB	ND >0.0028 mg/L	---
Manganese	ND >0.004 mg/L	---
Iron	1.5 mg/L	1 mg/L
Pentachlorophenol	ND >25 µg/L	13 µg/L at pH 7.8

The detection limits for the pesticides and pentachlorophenol were too high to be sure that they are not present. However, they are not used on site. One fecal coliform sample was somewhat high, but there is no direct correlation between FC and e. coli. We can only say that the e. coli concentration should be less than the fecal coliform. The 1200-Z general storm water permit has a benchmark of 406 counts/100 mL for e. coli for landfills, if septage and sewage biosolids are disposed at the site, and sewage treatment plants. This facility does not fit any of these categories. Furthermore, as stated above there is no human sewage associated with this discharge. This discharge is not expected to cause or contribute to any exceedances of the above pollutants in the receiving stream by a measurable amount. The permit has effluent limits for pH, PAH, temperature, oil and grease, and phenols. PAH should be non-detect at the end of pipe.

The following TMDL has been approved by EPA:

Dioxin (2,3,7,8-TCDD)

340-041-0053
Mixing Zones

(1) The Department may allow a designated portion of a receiving water to serve as a zone of dilution for wastewaters and receiving waters to mix thoroughly and this zone will be defined as a mixing zone;

Conclusion. This permit is establishing several new effluent limits. The nature of the discharge pipe to the Willamette does not cause much mixing of the effluent with the river. Therefore, the mixing zone will be removed from the permit and all limits will be met at the end of the pipe where Koppers has been taking compliance samples.

COMPLIANCE HISTORY

Notices of Noncompliance were issued in March 1997 and May 2000 for phenol exceedances.

PROPOSED PERMIT

The proposed renewal permit is attached.

Applicant Review DRAFT 6 August 2004

Permit Number: 101642
Expiration Date: 2009
File Number: 47430

APPLICANT REVIEW

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

WASTE DISCHARGE PERMIT
Department of Environmental Quality
Northwest Region Office
2020 Southwest Fourth Avenue, Portland, OR 97201-4987
Telephone: (503) 229-5263

Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

Koppers Industries, Inc.
NW Terminal
7540 NW St. Helens Road
Portland OR 97229

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Outfall Location
Tank Farm runoff and boiler blowdown	001	RM 6.5

PLANT TYPE AND LOCATION:

Coal Tar Pitch Terminal
7540 NW St. Helens Rd.
Portland, Oregon

RECEIVING STREAM INFORMATION:

Basin: Willamette
Sub-Basin: Lower Willamette
Stream: Willamette River
LLID/RM 1227618456580/6.5
County: Multnomah

EPA REFERENCE NUMBER: OR 000077-9

Issued in response to Application No. 984280 received 9 May 2003

Neil Mullane, Manager
Water Quality Program, Northwest Region

Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify or operate a waste water collection, treatment, control and disposal system and discharge to public waters adequately treated waste waters only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

	Page
Schedule A - Waste Discharge Limitations not to be Exceeded	2
Schedule B - Minimum Monitoring and Reporting Requirements	3
Schedule C - Compliance Conditions and Schedules	-
Schedule D - Special Conditions	4
Schedule F - General Conditions	5

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharge to an underground injection control system.

SCHEDULE A
Waste Discharge Limitations not to be Exceeded After Permit Issuance Date

1. Waste Discharge Limitations not to be Exceeded After Permit Issuance Date

Outfall Number 001. Samples are to be collected from the six on-site storage tanks.

	Concentrations	
Parameter	Monthly Ave mg/L	Daily Max. mg/L
Oil and Grease	10	15
Phenols	0.5	0.7
Other Parameters	**Limitations**	
pH	Shall be within the range of 6.5 to 8.5	
Temperature	Shall not exceed 25 °C	
	Maximum Concentration, µg/L	
PAHs	Not detectable using EPA Method 625/1625[1]	
Benzene	25	
BTEX	250	
Cyanide	5.2	

[1] PAHs include sixteen separate compounds. To comply with the "not detectable" limit, Koppers must show that the discharge does not contain any of the PAH compounds at concentrations above the minimum quantitative levels specified in 40 CFR 136.

2. Notwithstanding the effluent limitations established by this permit, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR 340-41.

SCHEDULE B
Minimum Monitoring and Reporting Requirements (unless otherwise approved in writing by the Department)

Outfall Number 001. Samples are to be collected from the six on-site storage tanks.

Item or Parameter	Minimum Frequency	Type of Sample
Flow	Daily	Estimate
Temperature	Daily	Grab
pH	Daily	Grab
Oil and grease	Weekly	Grab
Phenols *	Monthly	Grab
Polynuclear Aromatic Hydrocarbons**	Quarterly	Grab

* Test procedures for phenols should conform with Standard Methods No. 5530C, 20th Edition or equivalent.

** Test procedures for polynuclear aromatic hydrocarbons (PAH) should be EPA Method 610 or equivalent.

In addition, the following pollutants shall be sampled monthly using grab samples for a period of one year from the issuance date of this permit. At the end of the year, the Department will review the data and determine whether the permit needs to be reopened. The analysis method detection limits must be low enough so that exceedances of fresh water chronic standards per OAR 340-041 Table 20 can be detected.

Cyanide
Pesticides
Priority pollutant metals silver, arsenic, beryllium, cadmium, copper, mercury, nickel, lead, tin, selenium, titanium, and zinc (Ag, As, Be, Cd, Cu, Hg, Ni, Pb, Sb, Se, Ti, and Zn)
Tars, tar oils and various petroleum distillants

Reporting Procedures

Monitoring results shall be reported on approved forms. The reporting period is the calendar month. Reports must be submitted to the Department by the 15th day of the following month.

SCHEDULE D
Special Conditions

1. Sanitary wastes shall be disposed of to the City of Portland municipal sewage system.

2. An adequate contingency plan for prevention and handling of spills and unplanned discharges shall be in force at all times. A continuing program of employee orientation and education shall be maintained to ensure awareness of the necessity of good inplant control and quick and proper action in the event of a spill or accident.

3. No emulsifying agents or detergents shall be discharged into or otherwise be allowed to enter into the oil-water separator. The use of Zep-Big Orange is allowed unless the City of Portland Bureau of Environmental Services requests that its use be discontinued.

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations

Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit.

In addition, a person who unlawfully pollutes water as specified in ORS 468.943 or ORS 468.946 is subject to criminal prosecution.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee shall correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application shall be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;

b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee shall comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality and/or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Prohibition of bypass.

(1) Bypass is prohibited unless:

(a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering

judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(c) The permittee submitted notices and requests as required under General Condition B.3.c.

(2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

c. Notice and request for bypass.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the causes(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and

(4) The permittee complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

a. Definitions

(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.

(3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

b. Prohibition of overflows. Overflows are prohibited unless:

(1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and

(3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee shall take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results

Monitoring results shall be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports shall be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value shall be recorded unless otherwise specified in this permit.

7. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.

8. Retention of Records

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents

Records of monitoring information shall include:

a. The date, exact place, time and methods of sampling or measurements;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

10. Inspection and Entry

The permittee shall allow the Director, or an authorized representative upon the presentation of credentials to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and

d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall comply with Oregon Administrative Rules (OAR) 340, Division 52, "Review of Plans and Specifications". Except where exempted under OAR 340-52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers shall be commenced until the plans and specifications are submitted to and approved by the Department. The permittee shall give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit shall be transferred to a third party without prior written approval from the Director. The permittee shall notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permittee becomes aware of the circumstances. During normal business hours, the Department's Regional office shall be called. Outside of normal business hours, the Department shall be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected;

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and

e. Public notification steps taken, pursuant to General Condition B.7.

The following shall be included as information which must be reported within 24 hours under this paragraph:

a. Any unanticipated bypass which exceeds any effluent limitation in this permit.

b. Any upset which exceeds any effluent limitation in this permit.

c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected; and

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with 40 CFR 122.22.

9. Falsification of Information

A person who supplies the Department with false information, or omits material or required information, as specified in ORS 468.953 is subject to criminal prosecution.

10. Changes to Indirect Dischargers - **[Applicable to Publicly Owned Treatment Works (POTW) only]**

The permittee must provide adequate notice to the Department of the following:

a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants and;

b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

c. For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

11. Changes to Discharges of Toxic Pollutant - **[Applicable to existing manufacturing, commercial, mining, and silvicultural dischargers only]**

The permittee must notify the Department as soon as they know or have reason to believe of the following:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:

(1) One hundred micrograms per liter (100 µg/l);

(2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

(4) The level established by the Department in accordance with 40 CFR 122.44(f).

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 µg/l);

(2) One milligram per liter (1 mg/l) for antimony;

(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

(4) The level established by the Department in accordance with 40 CFR 122.44(f).

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.

2. TSS means total suspended solids.

3. mg/l means milligrams per liter.

4. kg means kilograms.

5. m^3/d means cubic meters per day.

6. MGD means million gallons per day.

7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.

8. FC means fecal coliform bacteria.

9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-41.

10. CBOD means five day carbonaceous biochemical oxygen demand.

11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.

12. Quarter means January through March, April through June, July through September, or October through December.

13. Month means calendar month.

14. Week means a calendar week of Sunday through Saturday.

15. Total residual chlorine means combined chlorine forms plus free residual chlorine.

16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.

17. POTW means a publicly owned treatment works.

(May 1998)

DRAFT Public Notice: Request for Comments

Proposed National Pollutant Discharge Elimination System Permit for Koppers Inc., Northwest Terminal, (Facility Name) File ID # 47430

State of Oregon
Department of Environmental Quality

Northwest Region
Water Quality
2020 SW 4th Avenue
Portland, OR 97201
Phone: (503) 229-5263
(800) 452-4011
Fax: (503) 229-6957
Contact: Elliot Zais
www.deq.state.or.us

Notice issued: (Date)

Written comments due: 5 PM, DATE

Where can I get more information and send comments?
DEQ accepts comments by mail, fax and e-mail.

Name: Elliot Zais

Phone: 503/229-5292 or
toll free in Oregon 800/452-4011

Mailing address:
DEQ NWR
2020 SW 4th Ave, Suite 400, Portland OR 97201-4987

Fax: 503/229-6957

E-mail: zais.elliot@deq.state.or.us

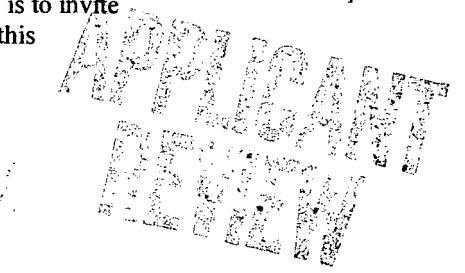
Email comments will be acknowledged immediately. If there is a delay between servers, e-mails may not be received before the deadline.

How can I review documents?
You can review the draft permit and permit application at
DEQ NWR
For a review appointment call
503/229-5292.

The draft permit and evaluation are posted at the following website:

http://www.deq.state.or.us/wq/wqpermit/indvpermitdocs.htm

What are DEQ's responsibilities?
The Oregon Department of Environmental Quality (DEQ) is the regulatory agency that helps protect and preserve Oregon's environment. DEQ is responsible for protecting and enhancing Oregon's water and air quality, for cleaning up spills and releases of hazardous materials, and for managing the proper disposal of hazardous and solid wastes. One way DEQ does this is by requiring permits for certain activities. The purpose of this notice is to invite you to submit written comments on this proposed permit.



Who is the applicant?
Koppers Industries, Inc.
NW Terminal
7540 NW St. Helens Road
Portland OR 97210

Where is the facility located?
Same

What is proposed?
DEQ proposes to renew a NPDES wastewater discharge permit.

Permit expiration: 2009

What are the special conditions of this permit?

1. Sanitary wastes shall be disposed of to the City of Portland municipal sewage system.

2. An adequate contingency plan for prevention and handling of spills and unplanned discharges shall be in force at all times. A continuing program of employee orientation and education shall be maintained to ensure awareness of the necessity of good inplant control and quick and proper action in the event of a spill or accident.

3. No emulsifying agents or detergents shall be discharged into or otherwise be allowed to enter into the oil-water separator. The

use of Zep-Big Orange is allowed unless the City of Portland Bureau of Environmental Services requests that its use be discontinued.

Compliance history:
Notice of Noncompliance, May 2000 for phenol exceedance.

Who is affected? People who use the Willamette River downstream of the outfall.

What other DEQ permits are required?
AMOS???

What legal requirements apply?
ORS 468B.050 and federal Clean Water Act.

What discretionary decisions did DEQ use in deciding to issue the permit?
None.

What happens next?
DEQ will review and consider all comments received during the comment period. Following this review, DEQ may issue the permit as proposed or modified, or deny the permit.

DEQ will hold a hearing if ten people or a group representing ten people asks for one.

Accessibility information
DEQ is committed to accommodating people with disabilities at our hearings. Please notify DEQ of any special physical or language accommodations or if you need information in large print, Braille or another format. To make these arrangements, contact DEQ Public Affairs at 503/229-5696 or toll free in Oregon at 1-800/452-4011.

People with hearing impairments may call DEQ's TTY number, 503/229-5471.

Which of the facility's activities are not under DEQ's jurisdiction?
(When possible, describe the facility's activities that cannot be regulated by DEQ, and list agencies that do regulate those activities.)

What similar activities take place in the vicinity of the facility?
The facility is in an industrial area.

What other facilities does this owner operate?
AMOS???

What are the known health effects or environmental impacts of the permitted substances stored, disposed of, discharged or emitted by the facility?
Oil and grease - *****
Phenols -****
pH - extremes are corrosive
Temperature - high temperature can be lethal
PAH -*********
Benzene - possible carcinogen
BTEX - possible carcinogens
Cyanide - toxic

How are the permitted substances measured?
Standard chemical methods.

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6945
TTY (503) 229-5471

August 4, 2003

KOPPERS INC
ATTN: AMOS KAMERER
7540 NW SAINT HELENS ROAD
PORTLAND OR 97210

Re: NPDES Permit Application
File No. 47430
EPA No. OR0000677-9
Site Loc. 7540 NW St. Helens Rd.
Multnomah County

Your renewal application for a National Pollutant Discharge Elimination System (NPDES) Permit was received on July 30, 2003 and has been assigned Application Number 984280. Any questions regarding the processing of this application should be directed to this office. If additional information is required for processing this application, it will be requested. The application will be complete with the submittal of EPA Form 2C. We understand that this will be forth coming when there is sufficient storm water on site to analyze.

After the application has been processed, a tentative determination in the form of a proposed permit or denial will be mailed to you. You will have up to 14 days to review and comment on that tentative determination. You may request additional time if needed.

Once your comments have been received or your review period has ended, any appropriate changes will be made and a Public Notice will be circulated. The notice period is 30 days. If the comments received in response to the Public Notice are minimal and require no further public participation, a final determination can be made.

If the Public Notice generates controversy or a significant amount of public interest, a public hearing may be necessary. This would further delay a final determination. If unusual delays are likely to occur, you will be notified.

Sincerely,

Annie Hill

Annie Hill, Permits Coordinator
Water Source Control
Northwest Region

RECEIVED
AUG 6 2003
KOPPERS INDS, INC.
PORTLAND OR

amh
cc: File

cc: T. Self
B. Bauman

FACT SHEET
and
NPDES WASTE DISCHARGE PERMIT EVALUATION

30 November 1998

Department of Environmental Quality - Northwest Region
2020 SW 4th Avenue, Portland, OR 97201
Telephone: (503) 229-5263

PERMITTEE: Koppers Industries, Inc.
Northwest Terminal
File No. 47430

SOURCE CONTACT:

Name	Phone Number
Amos Kamerer	503/286-3681

REVIEWER: Elliot Zais, Northwest Region

TO: Robert P. Baumgartner, Manager
Water Quality Source Control Section, Northwest Region

PROPOSED ACTION:. Permit Renewal

SOURCE CATEGORY: Creosote and Coal Tar Products Storage and Distribution Terminal
Minor Industrial Source

PERMIT APPLICATION DATE: 5 August 1997

PERMIT APPLICATION NUMBER: 990797

EPA REFERENCE NUMBER: OR 000077-9

INTRODUCTION

Koppers Industries, Inc. (Koppers) operates a storage and distribution terminal for pencil pitch, located at 7540 NW St. Helens Road in Portland, Oregon.

Koppers' NPDES permit expired on 30 November 1997. The proposed permit is essentially identical to the current permit.

FACILITY DESCRIPTION AND UPDATE

Koppers Northwest Terminal occupies a 2.6 hectare site on the Willamette River at RM 6.5. Much of the site is a tank farm. Coal tar pitch and other related products are shipped into the terminal via railroad tank cars or via bulk cargo ships. These products are either stored or further remanufactured prior to distribution. Outbound shipments are made via tank truck or railroad. The tank farm is split into two sections: the majority of the tanks are located in the main tank containment area, the floor of which is about 1.2 to 1.8 meters below the local ground surface level; a smaller number of tanks are located adjacent to the main tank containment area at ground surface level. These tanks are all provided with containment walls, and all storm drainage goes into the main containment area. Storm drainage from the parking area goes into the main containment area as well.

A boiler to provide steam to tank heaters is located on site outside of the main containment area. Boiler blowdown is discharged to the ground surface and drains to the main containment area. Boiler condensate from the tank heaters also discharges into the main containment area.

Most of the site is paved, including all material loading and unloading areas. Water which contacts the pavement anywhere on site runs to a nearby sump. The sumps contain floats and water pumps. When the water level within the sump reaches a predetermined level, the pump is activated and the water is sent to the main sump located near the water storage tanks. There is an oil-water separator in the main sump. The water in the main sump is pumped into one of six wastewater storage tanks. When a tank becomes full, the water within it is tested as specified in the permit. When the test results are received, the water is released to the Willamette River if it meets discharge requirements.

UNIQUE OPERATING CONDITIONS AND PROBLEMS

None.

STORM WATER

Storm water is managed under this individual NPDES permit.

OUTFALL

The outfall is a public storm drainage ditch which discharges to the Willamette River.

POLLUTANTS DISCHARGED AND PROPOSED LIMITS

The runoff discharged from the site is regulated for oil and grease, phenols, and pH. In addition, monitoring is required for flow, temperature, and polynuclear aromatic hydrocarbons (PAHs).

In order to issue a permit, the Department must perform a review per the requirements of OAR 340-41-026(3)(a)(C). The Department must make certain findings and consider certain issues before allowing a new mass load discharge. This is a not a new or increased load, but the review is still useful.) Below is a listing of the required findings and considerations, followed by the Department's conclusions:

340-41-026(3)(a)(A) The or continuing discharged load would not cause water quality standards to be violated.

Conclusion: The Department has modeled the discharge for the parameters listed and determined that water quality standards would not be violated outside of a mixing zone. All water quality standards will be met and beneficial uses protected.

As with all NPDES permits issued for facilities that propose to discharge wastewater to waters of the state, the proposed draft permit for the Koppers facility was drafted to ensure that all water quality standards contained in OAR 340-41-445 would be achieved.

Each of the parameters listed in OAR 340-41-445 is discussed below followed by the conclusions reached during this review.

(a) Dissolved Oxygen (DO):

Conclusion. The Koppers facility's discharge will not have a substantive BOD load.

(b) Temperature: The EQC adopted changes on January 11, 1996 which become effective on July 1, 1996. The following is applicable to the Willamette River:

340-41-026(3)(a) (A) To accomplish the goals identified in OAR 340-41-120(11), unless specifically allowed under a Department-approved surface water temperature management plan as required under OAR 340-41-026(3)(a)(D), no measurable surface water temperature increase resulting from anthropogenic activities is allowed:

(iii) In the Willamette River or its associated sloughs and channels from the mouth to river mile 50 when surface water temperatures exceed 68.0°F (12.8°C);

Conclusion: The discharge is not expected to violate the temperature standard.

(c) Turbidity (Nephelometric Turbidity Units, NTU): No more than a ten percent cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity

Conclusion: The discharge from the Koppers facility is not expected to affect instream turbidity.

(d) pH (hydrogen ion concentration): pH values shall not fall outside the following ranges: (B) All other basin waters: 6.5-8.5.

Conclusion. The runoff water is not expected to have a pH outside the range 6 -9.

(e) and (f) Bacteria Standards. The Koppers facility's discharge is not expected to contain bacteria.

(g) Dissolved gases. The Koppers facility's discharge is not expected to cause increases of dissolved gases in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of the receiving water.

(h) Fungi. The Koppers facility's discharge is not expected to contain fungi or to promote their growth.

(i) Tastes or odors. The Koppers facility's discharge is not expected to create tastes or odors or toxic or other conditions deleterious to aquatic life or to affect potability of drinking water or palatability of fish or shellfish.

(j) Deposits. The Koppers facility's discharge is not expected to contain material which would cause appreciable deposition in the river.

(k) and (l) The Koppers facility's discharge is not expected to cause offensive aesthetic conditions.

(m) Radioisotopes. The Koppers facility's discharge is not expected to contain radioisotopes.

(n) Total Dissolved Gas. The Koppers facility's discharge is not expected to increase total dissolved gas above 110 percent of saturation.

(o) Total Dissolved Solids. The TDS guidance limit in the Willamette River is 100 mg/L per OAR 340-41-445(2)(o)(B). It is appropriate to assume complete mixing when

evaluating this parameter. The Koppers facility's effluent is not expected to contain significant amounts of dissolved solids.

(p) Toxic Substances. The discharge is not expected to contain toxic substances exceeding applicable water quality standards.

340-41-026(3)(a)(B) The new or increased discharged load would not unacceptably threaten or impair any recognized beneficial uses. In making this determination, the Commission or Department may rely upon the presumption that if the numeric criteria established to protect specific uses are met the beneficial uses they were designed to protect are protected. In making this determination the Commission or Department may also evaluate other state and federal agency data that would provide information on potential impacts to beneficial uses for which the numeric criteria have not been set.

Conclusion: The Department believes that the increased load will not unacceptably threaten or impair any recognized beneficial uses.

340-41-026(3)(a)(C) The new or increased discharged load shall not be granted if the receiving stream is classified as being water quality limited under OAR 340-41-006(30)(a), unless:

(i) The pollutant parameters associated with the proposed discharge are unrelated either directly or indirectly to the parameter(s) causing the receiving stream to violate water quality standards and being designated water quality limited.

Conclusion: The Willamette River is listed as water quality limited for the following parameters:

Temperature - Summer
Water contact recreation (fecal coliform) - Fall through Spring
Biological criteria - fish skeletal deformities

This discharge is not expected to increase the temperature of the Willamette River by a measurable amount.

340-41-026(3)(a)(J) The activity, expansion or growth necessitating a new or increased discharge load is consistent with the acknowledged local land use plans as evidenced by a statement of land use compatibility from the appropriate local planning agency.

Conclusion: Koppers has filed a land use compatibility statement with the City of Portland. It has been approved.

340-41-026(3)(b)(A) Considerations of Environmental Effects Criteria:

Criterion 1: Adverse Out-of-Stream Effects. There may be instances where the discharge or limited discharge alternatives may cause greater adverse environmental effects than the increased discharge alternative.

Conclusion: Not applicable to this situation.

Criterion 2: Instream Effects. Total stream loading may be reduced through elimination or reduction of other source discharges or through a reduction in seasonal discharge. A source that replaces other sources, accepts additional waste from less efficient treatment units or systems, or reduces discharge loadings during periods of low stream flow may be permitted an increased discharge load year-round or during seasons of high flow, as appropriate.

Conclusion: Not applicable to this situation.

Criterion 3: Beneficial Effects. Land application, upland wetlands application, or other non-discharge alternatives for appropriately treated wastewater may replenish groundwater levels and increase streamflow and assimilative capacity during otherwise low streamflow periods.

Conclusion: Not applicable.

340-41-026(3)(b)(B) Considerations of Economic Effects Criteria:

Criterion 1: Value of Assimilative Capacity. The assimilative capacity of Oregon's streams are finite, but the potential uses of this capacity are virtually unlimited. Thus it is important that priority be given to those beneficial uses that promise the greatest return (beneficial use) relative to the unused assimilative capacity that might be utilized. Instream uses that benefit from reserve assimilative capacity, as well as potential future beneficial use, will be weighed against the economic benefit associated with increased loading.

Conclusion: This discharge is not expected to use a significant portion of the Willamette River's assimilative capacity.

Criterion 2: Cost of Treatment Technology. The cost of improved treatment technology, nondischarge, and limited discharge alternatives shall be evaluated.

Conclusion: The currently proposed technology is appropriate.

The pollutants of concern and the proposed permit limits are as follow:

Parameter	Concentrations Monthly Ave mg/l	Daily Max. mg/l
Oil and Grease	10	15
Phenols	0.5	0.7

Other Parameters	Limitations
pH	Shall be within the range of 6.0 to 9.0
Temperature	Shall not exceed 43.3°C
Polynuclear Aromatic Hydrocarbons (PAH)	The sum of all PAH compounds detected at levels above the method detection limits shall not exceed 1,000 µg/L

COMPLIANCE HISTORY

A Notice of Noncompliance was issued for a phenol exceedance in November 1996.

PROPOSED PERMIT

Koppers has asked that they be allowed to use Chemcoa 1035-A, a proprietary cleaner, when washing vehicles on site. The Department considers the amount proposed to be used as deminimis. The City of Portland Bureau of Environmental Services concurs. Therefore, the new permit will be identical to the current permit, except for conversion to metric (SI) units and a mention of Chemcoa 1035-A in the Schedule D, Special Conditions.

Public Notice

cc: T. Self, K-1800
12/30/98

Oregon Department Of Environmental Quality

Notice Issued: 30 December 1998
Written Comments Due: 29 January 1999

RECEIVED
DEC 3 0 1998
KOPPERS INDS, INC.
PORTLAND OR

Renew National Pollutant Discharge Elimination System permit.

WHO IS THE APPLICANT:
Koppers Industries, Inc.
NW Terminal
7540 NW St. Helens Road
Portland OR 97229

LOCATION OF FACILITY:
Koppers Industries, Inc.
NW Terminal
7540 NW St. Helens Road
Portland OR 97229

WHAT IS PROPOSED:
The Department proposes to renew a National Pollutant Discharge Elimination System permit to allow the discharge of treated storm water runoff

WHO IS AFFECTED:
People who use the Willamette River downstream of the outfall.

NEED FOR PERMIT:
This permit is required by ORS 468B.050 and the Federal Clean Water Act. The previous permit was issued on November 19, 1992.

DESCRIPTION OF DISCHARGES:
Runoff from a tank farm.

SPECIAL CONDITIONS:

1. Sanitary wastes shall be disposed of to the City of Portland municipal sewage system.
2. An adequate contingency plan for prevention and handling of spills and unplanned discharges shall be in force at all times. A continuing program of employee orientation and education shall be maintained to ensure awareness of the necessity of good inplant control and quick and proper action in the event of a spill or accident.
3. No emulsifying agents or detergents shall be discharged into or otherwise be allowed to enter into the oil-water separator. The use of Chemcoa 1035-A is allowed unless the City of Portland Bureau of Environmental Services requests that its use be discontinued.

COMPLIANCE HISTORY:
November 1996 NON for phenol limit exceedance.
March 1997 NON for PAH limit exceedance.

OTHER REQUIRED PERMITS:
None.

WHERE TO FIND DOCUMENTS:

Documents and related material are available for examination and copying at: 2020 SW 4th Ave., Portland, Oregon.

While not required, scheduling an appointment will ensure documents are readily accessible during your visit. To schedule an appointment please call Elliot Zais, 503/229-5292.

Any questions on the proposed permit renewal may be addressed to Elliot Zais at 503/229-5292 or toll free within Oregon at 800/452-4011). People with hearing impairments may call DEQ's TTY at 503/229-5471.

PUBLIC PARTICIPATION:

Public hearing:
DEQ will provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the proposed permit if:

- the submitted comments indicate significant public interest, or
- written requests from 10 or more persons are received, or
- an organization representing at least 10 persons requests a public hearing.

Written comments:
Written comments on the proposed permit renewal must be received at the Oregon Department of Environmental Quality by 5 p.m. on Friday, 29 January 1999. Written comments should be mailed to Oregon Department of Environmental Quality, Attn.: Elliot Zais, 2020 SW 4th Ave., Suite 400, Portland OR 97201-4987. ***People wishing to send written comments via e-mail should be aware that if there is a delay between servers or if a server is not functioning properly, e-mails may not be received prior to the close of the public comment period.*** People wishing to send comments via e-mail should send them in Microsoft Word (through version 97), WordPerfect (through version 6.x) or plain text format. Otherwise, due to conversion difficulties, DEQ recommends that comments be sent in hard copy.

WHAT HAPPENS NEXT:

DEQ will review and consider all comments received during the public comment period. Following this review, the permit may be issued as proposed, modified, or denied. You will be notified of DEQ's final decision if you present either oral or written comments during the comment period. Otherwise, if you wish to receive notification, please call or write DEQ at the above address.

ACCESSIBILITY INFORMATION:

This publication is available in alternate format (e.g. large print, Braille) upon request. Please contact DEQ Public Affairs at 503-229-5766 or toll free within Oregon at 1-800-452-4011 to request an alternate format. People with a hearing impairment can receive help by calling DEQ's TTY at 503-229-6993.

Amos S. Kamerer
Plant Manager

KOPPERS

Koppers Inc.
Carbon Materials & Chemicals
7540 NW Saint Helens Road
Portland, Oregon 97210-3663
Tel 503 286 3681
Fax 503 285 2831
KamererAS@koppers.com
www.koppers.com

July 29, 2003

Oregon Department of Environmental Quality
Northwest Region
2020 SW Forth Ave., Suite 400
Portland, Oregon 97201-4987

Attention: Anne Hill
Permits Coordinator

Reference: NPDES Permit No. 101642
File No. 47430
Multnomah County

Dear Ms. Hill,

Enclosed please find the completed Renewal Application National Pollutant Discharge Elimination System Permit form and our check number 255827 in the amount of $1,475.00, covering the required filing and processing fees.

Not included with this submittal, is the Form 2C – Wastewater Discharge Information. As we do not have any storm water to test at this time, Elliot suggested that I go ahead and submit this portion of the application and then follow up with the Form – 2C data when we have sufficient storm water on site, to analyze.

Additionally, I would like to make the following comments regarding some changes needed to be made to the data in the existing permit:

1) Under Sources Covered by this Permit, a note should be made that the sample taken for analysis is taken from the six storage tanks that we have on site and not the Outfall Number 001 location.

2) Under Sources Covered by this Permit, Plant Type and Location, the description should be changed from Creosote Terminal to Coal Tar Pitch Terminal, as we no longer handle creosote through the terminal.

3) Under Schedule A, no changes to the existing discharge limitations listed are requested.

4) Under Schedule D, the proprietary cleaner Chemcoa 1035-A, which is currently allowed to be used under item 3 of this section, has been changed to another brand. The new brand is Zep – Big Orange and is used for the same purpose of occasionally washing vehicles on site. A copy of the MSDS for this product is included with this submittal.

Also, our operations have changed since the last permit renewal in 1997. We have added a new 2,100,000-gallon liquid pitch storage tank and related piping, a new 2,400 liner feet long unloading pipe line from the Gasgo Dock to the new storage tank, and an additional 10 MM BTU/per hr. input hot oil heater has been installed. Even though we may bring in solid pencil pitch in bulk form at some time in the future, as we have done since 1984, going forward, it is our intent to bring in the pitch in liquid form via ocean going vessels, using this new unloading and storage system.

On the Renewal Application, the following are comments under section B. Required Information the would not fit on the space allowed on the form:

1) The terminal imports liquid and/or solid coal tar pitch. This pitch is then reloaded from the storage tanks into tank trucks or tank rail cars and shipped to our various customers in the Pacific Northwest. No wastewaters are generated. Only storm water and boiler blow down water is generated and discharged through this permit. No wastewater treatment is done on this site.

5) Regarding our review of meeting the current permit requirements; the last excursion, which was Non-Compliance, was for phenols in November 1996.

Last, I have included a Storm Water Flow Plan for the terminal.

If you have any questions, I can be reached at # 503/286-3681 or via e-mail at: kamereras@koppers.com

Sincerely,

Amos S. Kamerer

CC: E. Zais, ODEQ
T. Self, KII
B. Bauman, KII

Approvals

Koppers Industries, Inc.
Pittsburgh, PA 15219

60-160
433

Location No. 9270 Date 7/29/03 No. 255827

Pay to the order of --KOPPERS-- INDUSTRIES, INC One thousand four hundred seventy five and 00 cts $ 1,475.00

Not valid over $3500.00

Oregon Dept. of Environmental Quality
2020 SW 4th Ave., Suite 400
Portland, OR 97201

Mellon Bank, N.A., Pittsburgh, PA 15259

KI 179 4/01 5M

⑈255827⑈ ⑆043301601⑆ 069⑈1673⑈

General Ledger	Detail	Sub Detail	Location or Contract	Dept. or Orig. Loc.	Tax Codes	Emp. No.	Purchase Order No. Rec. Id.	Pr.	P.O. No.	P.O. Add.	P.O. Add. or Resource	Quantity	Unit Code	Amount Distributed Dollars	Cents
305	807		9270	925	0362									1470	00

Vendor No.	Description
967125014	Fees for the NPDES permit renewal

DEQ USE ONLY
Application #:
File #:
Mail ID #2/#9:
LLID/RM:
ACD Fee Paid:
DOC Conf.:
Notes:

RENEWAL APPLICATION NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

(NPDES-R)

Oregon Department of Environmental Quality

DEQ USE ONLY
Received:
Amount Received:
Check #:
Deposit #:
☐ IND ☐ DOM ☐ UIC
Notes:

A. REFERENCE INFORMATION

1. Legal Name: Koppers Inc.	2. Common Name: Koppers Inc.
3. Permit #: 101642 DEQ Site ID#: 47430 Permit Expiration Date: 1/31/2004	4. Facility Physical Address: 7540 NW Saint Helens Road City, State, Zip Code: Portland, OR 97210 County: Multnomah
5. Responsible Official: Amos Kamerer Mailing Address: 7540 NW Saint Helens Road	Telephone #: 503-286-3681 City, State, Zip Code: Portland, OR 97210
6. Facility Contact: Amos Kamerer Facility Mailing Address: 7540 NW Saint Helens Road	Telephone #: 503-286-3681 City, State, Zip Code: Portland, OR 97210
7. Invoice to: 7540 NW Saint Helens Billing Address: 7540 NW Saint Helens Road	Telephone #: 503-286-3681 City, State, Zip Code: Portland, OR 97210

B. REQUIRED INFORMATION

(EPA Form 2A, 2B, 2C, 2E, or 2F must also be submitted with this application)

1. Briefly describe the permitted facility, type of wastewater, and primary method of wastewater treatment and disposal:
   See cover letter.

2. Have the treatment or disposal methods employed, as indicated in previous applications, been altered in any way since the last application was submitted? ☐ YES ☒ NO If "YES," explain:

3. Has the quantity or quality of wastes discharged, as indicated in previous applications, been significantly changed in any way since the last application was submitted? ☐ YES ☒ NO If "YES," explain:

4. If there are any changes anticipated in the near future that would affect waste quantity or quality, attach an explanation or proposal.

5. Review each condition of your current permit and attach a brief report that indicates your progress in meeting the requirements, limitations, and compliance schedules of the permit. See cover letter.

6. If the permitted facility or operation is a domestic wastewater treatment plant, attach a copy of your Biosolids Management Plan.

C. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-45. This includes a renewal application fee to renew the permit and a compliance determination fee invoiced annually by DEQ to maintain the permit.

Amos Kamerer — Plant Manager

Name of Legally Authorized Representative (Type or Print) — Title

Signature of Legally Authorized Representative — 3/29/03 Date

APPLICATION INSTRUCTIONS FOR RENEWAL NPDES INDIVIDUAL PERMIT

Please answer all questions. An incomplete application will not be processed.
If the information requested is not applicable, please indicate as such.

A. REFERENCE INFORMATION:

1. Enter the legal name of the applicant. This must be the legal Oregon name (i.e., Acme Products, Inc.) or the legal representative of the company if it operates under an assumed business name (i.e., John Smith, dba Acme Products). The name must be a legal, active name registered with the Oregon Department of Commerce, Corporation Division (503) 378-4752, unless otherwise exempted by their regulations. The permit will be issued to the legal name of the applicant.

   If the legal name of the applicant has changed since the initial permit was issued or the permit needs to be transferred to a new owner, a *Name Change/Transfer of Ownership* form (enclosed) must also be submitted with this application. This form is available by contacting a DEQ regional office listed below or at http://waterquality.deq.state.or.us/wq/wqpermit/wqpermit.htm#PermitInfo.
2. Enter the common name of the facility or operation if different than the legal name.
3. Enter the permit number, DEQ site identification number (also known as the facility number or file number; this number may be found on the first page of your permit), and expiration date of your current permit.
4. Enter the physical location of the facility (not mailing address), including city, state, zip code, and county.
5. Enter the name, telephone number, and mailing address of the Responsible Official. The Responsible Official is the person that receives official correspondence from DEQ, such as renewal notices or notices of noncompliance, and may be contacted if there are questions about this application.
6. Enter the name, telephone number and mailing address of the Facility Contact if different from the Responsible Official. The Facility Contact is the person located at the facility that has specific knowledge of the facility or operation under permit (e.g., the treatment plant operator), and may be contacted if there are specific questions about this application.
7. Enter invoicing information for billing purposes if different from the Responsible Official (e.g., "Invoice To: Business Office - Accounts Payable").

B. REQUIRED INFORMATION:

1. Briefly describe the permitted facility, type of wastewater (industrial, sewage or both), and primary method of wastewater treatment and disposal. For example, "2 MGD domestic sewage treatment plant consisting of non-discharging, evaporative lagoons" or "Seasonal jelly processing facility with land irrigation of process wastewater."

2. - 6.
   Complete the remaining questions as indicated. Attach any additional pages of explanation, including any diagrams or maps that are needed to update the Department.

In addition, EPA Form 2A, 2B, 2C, 2E, or 2F must be submitted with this application depending on the type of facility or operation to be permitted. The correct form is enclosed in this application packet or may be obtained by contacting the appropriate DEQ regional office listed at the bottom of this page.

C. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE:

The signature of a legally authorized representative must be provided in order to process this application.

Definition of Legally Authorized Representative:
See 40 CFR 122.22 for more detail. Also, please also provide the information requested in brackets *[ ]*

- **Corporation** — president, secretary, treasurer, vice-president, or any person who performs principal business functions; or a manager of one or more facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million that is authorized in accordance to corporate procedure to sign such documents
- **Partnership** — General partner *[list of general partners, their addresses and telephone numbers]*
- **Sole Proprietorship** — Owner(s) *[each owner must sign the application]*
- **City, County, State, Federal, or other Public Facility** — Principal executive officer or ranking elected official
- **Limited Liability Company** — Member *[articles of organization]*
- **Trusts** — Acting trustee *[list of trustees, their addresses and telephone numbers]*

FEE AND APPLICATION SUBMITTAL:

Please see the cover letter enclosed with this form or call the appropriate regional office below for fee information and to determine where to send this application. This application must be submitted **at least 180 days prior to the expiration date** of your current permit.

Send this form and fee to the appropriate DEQ regional office:
Make your check payable to the Department of Environmental Quality

DEQ Northwest Region	DEQ Western Region	DEQ Eastern Region
2020 SW 4th Ave., Suite 400	750 Front St. NE, Suite 120	700 SE Emigrant, Suite 330
Portland, OR 97201-4987	Salem, OR 97301-1039	Pendleton, OR 97801
(503) 229-5263 or 1-800-452-4011	(503) 378-8240 or 1-800-349-7677	(541) 276-4063 or 1-800-452-4011

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING DISPOSAL INFORMATION

ISSUE DATE: 07/21/98
SUPERSEDES: 06/20/94 DATE PRINTED: 03/26/03

'P MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GA 30301
Acuity Specialty Products Group 1-877-I-BUY-ZEP

SOLD TO:
01249

KOPPERS 363
7540 ST HELENS
PORTLAND OR 97210

A69550 Branch: 363

BIG ORANGE

Product Number: 0415 **Industrial Solvent Degreaser**

SECTION I - EMERGENCY CONTACTS

For Additional Information call
Acuity Specialty Products Group 1-877-I-BUY-ZEP

For a Medical Emergency:
INFOTRAC
(877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency:
CHEMTREC
(800) 424-9300
In the District of Columbia: (202) 483-7616

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE NOTICE)	%IN PROD.
** D-LIMONENE ** orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-; CAS# 5989-27-5; RTECS# GW6360000; OSHA PEL N/D	N/D	CBL SEN	> 90

SECTION III - HEALTH HAZARD DATA

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

ACUTE EFFECTS OF OVEREXPOSURE:
This product can be an eye irritant. Inflammation of eye tissue is characterized by redness, watering, and/or ing.
e of the ingredients in this product has caused sensitization reactions in a small percentage of the general population.

CHRONIC EFFECTS OF OVEREXPOSURE:
Contact, especially if prolonged or repeated, may cause redness, itching, or irritation of the skin.
None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.
EST'D PEL/TLV: Not established PRIMARY ROUTES OF ENTRY: N/A

HMIS CODES: HEALTH 1; FLAM. 2; REACT. 0; PERS. PROTECT. B ; CHRONIC HAZ. NO

FIRST AID PROCEDURES:
SKIN: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes. If irritation develops, consult a physician.
INHALE: If symptoms occur, move affected person to fresh air. If symptoms persist, get medical attention promptly.
INGEST: If this product is swallowed, do not induce vomiting. If individual is alert, give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: If prolonged contact is expected or occurs, wear nitrile gloves or other gloves with proven resistance to the ingredients listed.
EYE PROTECTION: As with all chemical products, eye contact should be avoided. Implement protective measures based on conditions of use and potential for exposure.
RESPIRATORY PROTECTION: No special measures are required.
VENTILATION: No special measures are required.

SECTION V - PHYSICAL DATA

BOILING POINT (F): 338-375 est. SPECIFIC GRAVITY: 0.85
POR PRESSURE(mmHg): 1.9 EVAPORATION RATE (CCL4=1): ~33
VAPOR DENSITY(AIR=1): N/A pH(CONCENTRATE): N/A
pH(USE DILUTION OF 1:20): 7.6
VOC CONTENT (CONCENTRATE): 92.7% 6.58 lb/gl
APPEARANCE AND ODOR: AN ORANGE LIQUID WITH A CITRUS ODOR.

Koppers018610

SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(F) (METHOD USED): 121 (TCC)
FLAMMABLE LIMITS: LEL: N/D UEL: N/D
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical and foam.
SPECIAL FIRE FIGHTING: Fire exposed drums should be cooled with stream of water.
UNUSUAL FIRE HAZARDS: None

SECTION VII - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBLILITY(AVOID): Heat, flame, spark, strong acids and/or oxidizers.
POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION: Carbon dioxide, carbon monoxide, and other unidentified organic compounds.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Immediately eliminate all flame, ignition and high-heat sources. Absorb spill on inert absorbent material. Pick up and place residue in a clean, D.O.T. specification container for disposal. Wash area thoroughly with a detergent solution and rinse well with water.
WASTE DISPOSAL METHOD:
Liquids cannot be sent to landfills unless solidified. Unusable product and collected, spent material may require disposal as a hazardous waste at a permitted treatment/storage/disposal facility. Solvent wastes may require treatment to meet the appropriate standards before disposal in a chemical or industrial waste landfill. Consult local, state, and federal agencies for proper disposal method in your area.
RCRA HAZ. WASTE NOS.: D001

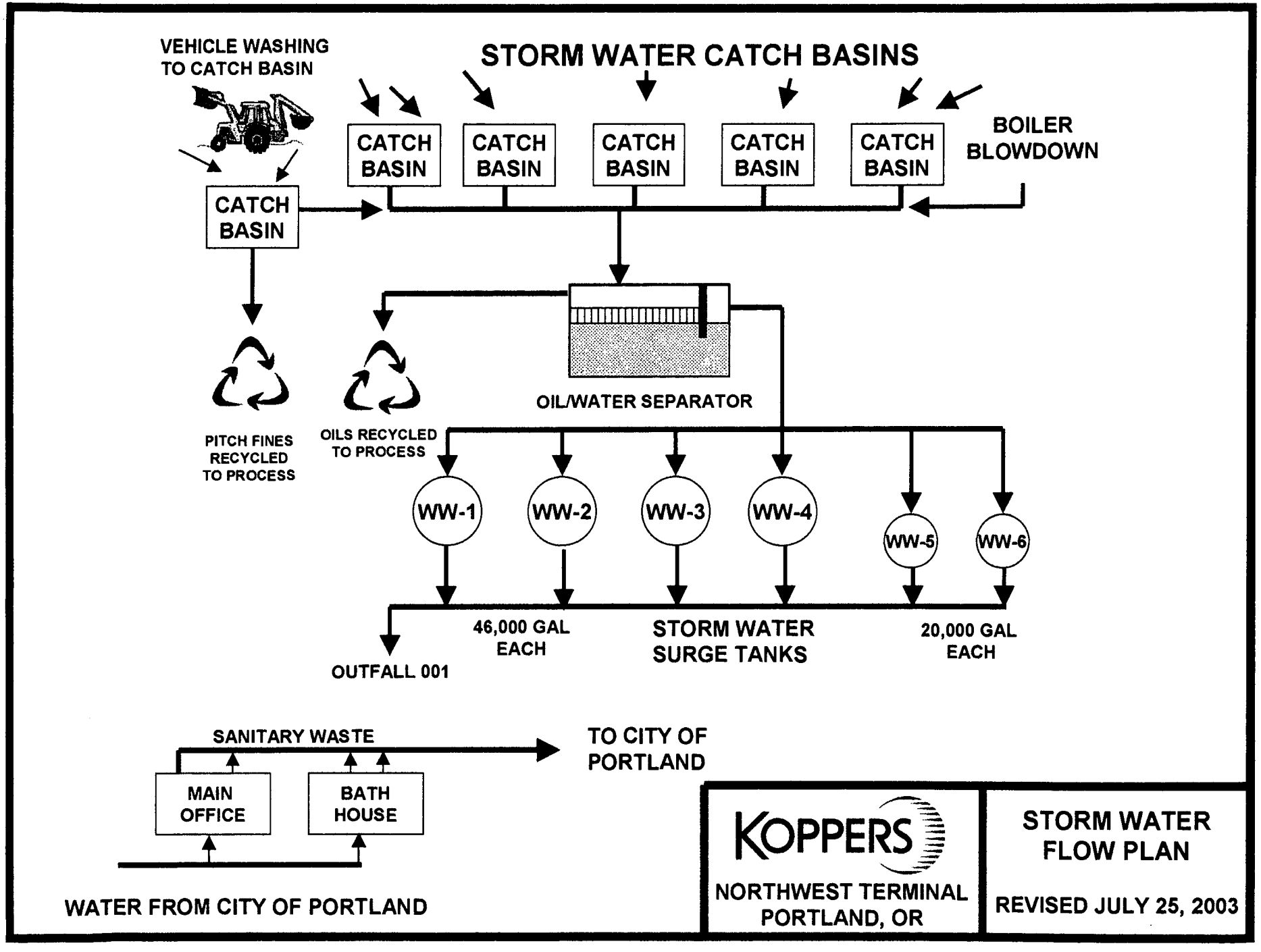
SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:
Combustible! Store and use away from heat, sparks, open flame, or any source of ignition.
Post "No Smoking" signs according to local regulations for combustible liquids.
Keep product away from skin and eyes.
Store tightly closed container in a dry area at temps. between 40-120 degrees F.
Keep out of the reach of children.

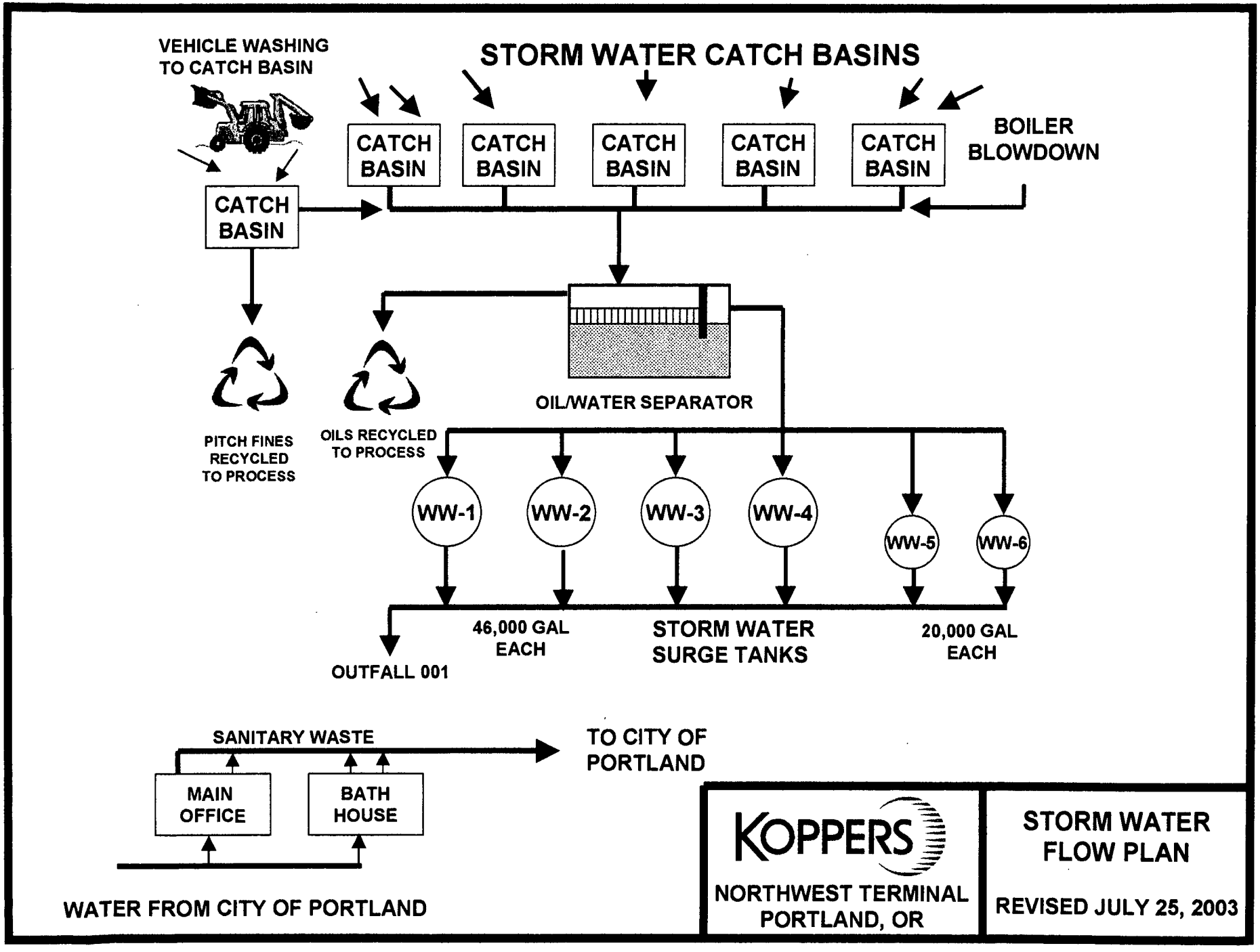
SECTION X - REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: INDUSTRIAL CLEANERS NOI LIQUID KEEP FROM FREEZING
NOTE: DOT information applies to larger package sizes of affected products. For some products, DOT may require alternate names and labeling in accordance with packaging group requirements.
DOT HAZARD CLASS: NA DOT PACKING GROUP:
DOT I.D. NUMBER: DOT LABEL/PLACARD:
EPA TSCA CHEMICAL INVENTORY - ALL INGREDIENTS ARE LISTED
EPA CWA 40CFR PART 117 SUBSTANCE(RQ IN A SINGLE CONTAINER):

Koppers018611



Koppers018612



Koppers018613

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6945
TTY (503) 229-5471

July 11, 2003
~~May 9, 2003~~

SECOND NOTICE

KOPPERS INC
ATTN: AMOS KAMERER
7540 NW ST HELENS ROAD
PORTLAND OR 97210-3663

Re: NPDES Permit No. 101642
File No. 47430
Multnomah County

Our records indicate that your present National Pollutant Discharge Elimination System (NPDES) wastewater disposal permit will expire on January 31, 2004.

For permit renewal, the enclosed application form must be completed, signed by the legally authorized official, and returned to the Department of Environmental Quality as soon as possible. Except for government agencies and private individuals, the official name of the applicant must reflect the legal name (not the assumed business name) of the business as it is currently registered with the Corporation Division of the Secretary of State (telephone 503-986-2200).

On September 28, 1988, new federal rules went into effect which require all NPDES permittees to submit a completed FORM 2C with each renewal application. This will require a detailed analytical evaluation of each effluent discharged. Please study the application carefully and submit all of the data required.

We will appreciate receiving your application as soon as possible as it takes several months to process. A filing fee of $60 and a processing fee of $1,415 are required to accompany the application. If modification of effluent limits is being requested by the application, the amount of the application processing fee will also increase. No action can be taken on the application until the fees are paid.

The completed renewal application and FORM 2C should be sent with fee payment to:

DEQ
2020 SW 4th Ave., Suite 400
Portland OR 97201

If you have any questions regarding the renewal application or the associated fees, please call me at (503) 229-5438.

RECEIVED
JUL 15 2003
KOPPERS INDS, INC
PORTLAND OR

Sincerely,

Annie Hill

Annie Hill, Permits Coordinator
Water Quality Source Control
Northwest Region

Enclosures
cc: Elliot Zais, DEQ Northwest Region
File

Call Elliot Z.

Koppers018614

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6945
TTY (503) 229-5471

May 9, 2003

KOPPERS INC
ATTN: AMOS KAMERER
7540 NW ST HELENS ROAD
PORTLAND OR 97210-3663

Re: NPDES Permit No. 101642
File No. 47430
Multnomah County

Our records indicate that your present National Pollutant Discharge Elimination System (NPDES) wastewater disposal permit will expire on January 31, 2004.

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DEQ
2020 SW 4th Ave., Suite 400
Portland OR 97201

If you have any questions regarding the renewal application or the associated fees, please call me at (503) 229-5438.

Sincerely,

Annie Hill

Annie Hill, Permits Coordinator
Water Quality Source Control
Northwest Region

Enclosures
cc: Elliot Zais, DEQ Northwest Region
File

RECEIVED
MAY 14 2003
KOPPERS INDS, INC.
PORTLAND OR

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Amos S. Kamerer
Plant Manager

Telephone: 503-286-3681
Fax: 503-285-2831

July 24, 2001

Oregon Department of Environmental Quality
Northwest Region
2020 SW Forth Ave., Suite 400
Portland, Oregon 97201-4987

Attention: Elliot J. Zais
Sr. Environmental Engineer

Reference: NPDES Permit No. 101642

Dear Mr. Zais,

To confirm yesterday's telephone conversation; a recent review of our NPDES Permit, referenced above, states that the samples of the storm water are to be taken at the # 001 outfall location. Some time ago, and I am not sure just when, Koppers started to take the samples from our storage tanks, rather than the # 001 outfall. This way, the samples are sent out for analysis prior to the discharge, thus, making sure that we are not discharging storm water that might exceed the permit parameters and, thus, we should not have any excursions.

The problem is that Koppers made this change with out proper consultation with ODEQ. As we now realize this over site, we wanted to bring this matter to your attention and request your acknowledgement that this practice is acceptable with ODEQ; and that the permit will be modified, accordingly, at the time of the renewal, when this permit expires on ~~December~~ JANUARY 31, 2004.

If you have any questions, I can be reached at # 503/286-3681 or via e-mail at: kamereras@koppers.com

Sincerely,

Amos S. Kamerer

CC: T. Self, KII
M. Cilley, KII

APPLICANT REVIEW

FACT SHEET
and
NPDES WASTE DISCHARGE PERMIT EVALUATION

30 November 1998

Department of Environmental Quality - Northwest Region
2020 SW 4th Avenue, Portland, OR 97201
Telephone: (503) 229-5263

PERMITTEE: Koppers Industries, Inc.
Northwest Terminal
File No. 47430

SOURCE CONTACT:

Name	Phone Number
Amos Kamerer	503/286-3681

REVIEWER: Elliot Zais, Northwest Region

TO: Robert P. Baumgartner, Manager
Water Quality Source Control Section, Northwest Region

PROPOSED ACTION:. Permit Renewal

SOURCE CATEGORY: Creosote and Coal Tar Products Storage and Distribution Terminal
Minor Industrial Source

PERMIT APPLICATION DATE: 5 August 1997

PERMIT APPLICATION NUMBER: 990797

EPA REFERENCE NUMBER: OR 000077-9

INTRODUCTION

Koppers Industries, Inc. (Koppers) operates a storage and distribution terminal for pencil pitch, located at 7540 NW St. Helens Road in Portland, Oregon.

Koppers' NPDES permit expired on 30 November 1997. The proposed permit is essentially identical to the current permit.

cc: T. Self 12/2/98

FACILITY DESCRIPTION AND UPDATE

Koppers Northwest Terminal occupies a 2.6 hectare site on the Willamette River at RM 6.5. Much of the site is a tank farm. Coal tar pitch and other related products are shipped into the terminal via railroad tank cars or via bulk cargo ships. These products are either stored or further remanufactured prior to distribution. Outbound shipments are made via tank truck or railroad. The tank farm is split into two sections: the majority of the tanks are located in the main tank containment area, the floor of which is about 1.2 to 1.8 meters below the local ground surface level; a smaller number of tanks are located adjacent to the main tank containment area at ground surface level. These tanks are all provided with containment walls, and all storm drainage goes into the main containment area. Storm drainage from the parking area goes into the main containment area as well.

A boiler to provide steam to tank heaters is located on site outside of the main containment area. Boiler blowdown is discharged to the ground surface and drains to the main containment area. Boiler condensate from the tank heaters also discharges into the main containment area.

Most of the site is paved, including all material loading and unloading areas. Water which contacts the pavement anywhere on site runs to a nearby sump. The sumps contain floats and water pumps. When the water level within the sump reaches a predetermined level, the pump is activated and the water is sent to the main sump located near the water storage tanks. There is an oil-water separator in the main sump. The water in the main sump is pumped into one of six wastewater storage tanks. When a tank becomes full, the water within it is tested as specified in the permit. When the test results are received, the water is released to the Willamette River if it meets discharge requirements.

UNIQUE OPERATING CONDITIONS AND PROBLEMS

None.

STORM WATER

Storm water is managed under this individual NPDES permit.

OUTFALL

The outfall is a public storm drainage ditch which discharges to the Willamette River.

POLLUTANTS DISCHARGED AND PROPOSED LIMITS

The runoff discharged from the site is regulated for oil and grease, phenols, and pH. In addition, monitoring is required for flow, temperature, and polynuclear aromatic hydrocarbons (PAHs).

In order to issue a permit, the Department must perform a review per the requirements of OAR 340-41-026(3)(a)(C). The Department must make certain findings and consider certain issues before allowing a new mass load discharge. This is a not a new or increased load, but the review is still useful.) Below is a listing of the required findings and considerations, followed by the Department's conclusions:

340-41-026(3)(a)(A) The or continuing discharged load would not cause water quality standards to be violated.

Conclusion: The Department has modeled the discharge for the parameters listed and determined that water quality standards would not be violated outside of a mixing zone. All water quality standards will be met and beneficial uses protected.

As with all NPDES permits issued for facilities that propose to discharge wastewater to waters of the state, the proposed draft permit for the Koppers facility was drafted to ensure that all water quality standards contained in OAR 340-41-445 would be achieved.

Each of the parameters listed in OAR 340-41-445 is discussed below followed by the conclusions reached during this review.

(a) Dissolved Oxygen (DO):

Conclusion. The Koppers facility's discharge will not have a substantive BOD load.

(b) Temperature: The EQC adopted changes on January 11, 1996 which become effective on July 1, 1996. The following is applicable to the Willamette River:

340-41-026(3)(a) (A) To accomplish the goals identified in OAR 340-41-120(11), unless specifically allowed under a Department-approved surface water temperature management plan as required under OAR 340-41-026(3)(a)(D), no measurable surface water temperature increase resulting from anthropogenic activities is allowed:

(iii) In the Willamette River or its associated sloughs and channels from the mouth to river mile 50 when surface water temperatures exceed 68.0°F (12.8°C);

Conclusion: The discharge is not expected to violate the temperature standard.

(c) Turbidity (Nephelometric Turbidity Units, NTU): No more than a ten percent cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity

Conclusion: The discharge from the Koppers facility is not expected to affect instream turbidity.

(d) pH (hydrogen ion concentration): pH values shall not fall outside the following ranges: (B) All other basin waters: 6.5-8.5.

Conclusion. The runoff water is not expected to have a pH outside the range 6 -9.

(e) and (f) Bacteria Standards. The Koppers facility's discharge is not expected to contain bacteria.

(g) Dissolved gases. The Koppers facility's discharge is not expected to cause increases of dissolved gases in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of the receiving water.

(h) Fungi. The Koppers facility's discharge is not expected to contain fungi or to promote their growth.

(i) Tastes or odors. The Koppers facility's discharge is not expected to create tastes or odors or toxic or other conditions deleterious to aquatic life or to affect potability of drinking water or palatability of fish or shellfish.

(j) Deposits. The Koppers facility's discharge is not expected to contain material which would cause appreciable deposition in the river.

(k) and (l) The Koppers facility's discharge is not expected to cause offensive aesthetic conditions.

(m) Radioisotopes. The Koppers facility's discharge is not expected to contain radioisotopes.

(n) Total Dissolved Gas. The Koppers facility's discharge is not expected to increase total dissolved gas above 110 percent of saturation.

(o) Total Dissolved Solids. The TDS guidance limit in the Willamette River is 100 mg/L per OAR 340-41-445(2)(o)(B). It is appropriate to assume complete mixing when

evaluating this parameter. The Koppers facility's effluent is not expected to contain significant amounts of dissolved solids.

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(p) Toxic Substances. The discharge is not expected to contain toxic substances exceeding applicable water quality standards.

340-41-026(3)(a)(B) The new or increased discharged load would not unacceptably threaten or impair any recognized beneficial uses. In making this determination, the Commission or Department may rely upon the presumption that if the numeric criteria established to protect specific uses are met the beneficial uses they were designed to protect are protected. In making this determination the Commission or Department may also evaluate other state and federal agency data that would provide information on potential impacts to beneficial uses for which the numeric criteria have not been set.

Conclusion: The Department believes that the increased load will not unacceptably threaten or impair any recognized beneficial uses.

340-41-026(3)(a)(C) The new or increased discharged load shall not be granted if the receiving stream is classified as being water quality limited under OAR 340-41-006(30)(a), unless:

(i) The pollutant parameters associated with the proposed discharge are unrelated either directly or indirectly to the parameter(s) causing the receiving stream to violate water quality standards and being designated water quality limited.

Conclusion: The Willamette River is listed as water quality limited for the following parameters:

Temperature - Summer
Water contact recreation (fecal coliform) - Fall through Spring
Biological criteria - fish skeletal deformities

This discharge is not expected to increase the temperature of the Willamette River by a measurable amount.

340-41-026(3)(a)(J) The activity, expansion or growth necessitating a new or increased discharge load is consistent with the acknowledged local land use plans as evidenced by a statement of land use compatibility from the appropriate local planning agency.

Conclusion: Koppers has filed a land use compatibility statement with the City of Portland. It has been approved.

340-41-026(3)(b)(A) Considerations of Environmental Effects Criteria:

Criterion 1: Adverse Out-of-Stream Effects. There may be instances where the discharge or limited discharge alternatives may cause greater adverse environmental effects than the increased discharge alternative.

Conclusion: Not applicable to this situation.

Criterion 2: Instream Effects. Total stream loading may be reduced through elimination or reduction of other source discharges or through a reduction in seasonal discharge. A source that replaces other sources, accepts additional waste from less efficient treatment units or systems, or reduces discharge loadings during periods of low stream flow may be permitted an increased discharge load year-round or during seasons of high flow, as appropriate.

Conclusion: Not applicable to this situation.

Criterion 3: Beneficial Effects. Land application, upland wetlands application, or other non-discharge alternatives for appropriately treated wastewater may replenish groundwater levels and increase streamflow and assimilative capacity during otherwise low streamflow periods.

Conclusion: Not applicable.

340-41-026(3)(b)(B) Considerations of Economic Effects Criteria:

Criterion 1: Value of Assimilative Capacity. The assimilative capacity of Oregon's streams are finite, but the potential uses of this capacity are virtually unlimited. Thus it is important that priority be given to those beneficial uses that promise the greatest return (beneficial use) relative to the unused assimilative capacity that might be utilized. Instream uses that benefit from reserve assimilative capacity, as well as potential future beneficial use, will be weighed against the economic benefit associated with increased loading.

Conclusion: This discharge is not expected to use a significant portion of the Willamette River's assimilative capacity.

Criterion 2: Cost of Treatment Technology. The cost of improved treatment technology, nondischarge, and limited discharge alternatives shall be evaluated.

Conclusion: The currently proposed technology is appropriate.

The pollutants of concern and the proposed permit limits are as follow:

Parameter	Concentrations Monthly Ave mg/l	Daily Max. mg/l
Oil and Grease	10	15
Phenols	0.5	0.7

Other Parameters	Limitations
pH	Shall be within the range of 6.0 to 9.0
Temperature	Shall not exceed 43.3°C
Polynuclear Aromatic Hydrocarbons (PAH)	The sum of all PAH compounds detected at levels above the method detection limits shall not exceed 1,000 µg/L

COMPLIANCE HISTORY

A Notice of Noncompliance was issued for a phenol exceedance in November 1996.

PROPOSED PERMIT

Koppers has asked that they be allowed to use Chemcoa 1035-A, a proprietary cleaner, when washing vehicles on site. The Department considers the amount proposed to be used as deminimis. The City of Portland Bureau of Environmental Services concurs. Therefore, the new permit will be identical to the current permit, except for conversion to metric (SI) units and a mention of Chemcoa 1035-A in the Schedule D, Special Conditions.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

APPLICANT REVIEW

WASTE DISCHARGE PERMIT
Department of Environmental Quality
Northwest Region Office
2020 Southwest Fourth Avenue, Portland, OR 97201
Telephone: (503) 229-5263

Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

Koppers Industries, Inc.
NW Terminal
7540 NW St. Helens Road
Portland OR 97229

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Outfall Location
Tank Farm Runoff and boiler blowdown	001	RM **

PLANT TYPE AND LOCATION:

Creosote Terminal
7540 NW St. Helens Rd.
Portland, Oregon

RECEIVING STREAM INFORMATION:

Basin: Willamette
Sub-Basin: Lower Willamette
Stream: Willamette River
Hydro-code: 22=-WILL 6.5 D
County: Multnomah

EPA REFERENCE NUMBER: OR 000077-9

Issued in response to Application No. 990797 received 5 August 1997

Robert P. Baumgartner, Manager, Water Quality Source Control
Northwest Region

Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify or operate a waste water collection, treatment, control and disposal system and discharge to public waters adequately treated waste waters only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

	Page
Schedule A - Waste Discharge Limitations not to be Exceeded	2
Schedule B - Minimum Monitoring and Reporting Requirements	3
Schedule C - Compliance Conditions and Schedules	-
Schedule D - Special Conditions	4
Schedule F - General Conditions	5-12

Unless authorized by another NPDES permit, each other direct and indirect waste discharge to public waters is prohibited.

SCHEDULE A

1. Waste Discharge Limitations not to be Exceeded After Permit Issuance Date

Outfall Number 001

	Concentrations	
Parameter	Monthly Ave mg/l	Daily Max. mg/l
Oil and Grease	10	15
Phenols	0.5	0.7

Other Parameters	Limitations
pH	Shall be within the range of 6.0 to 9.0
Temperature	Shall not exceed 43.3°C
Polynuclear Aromatic Hydrocarbons (PAH)	The sum of all PAH compounds detected at levels above the method detection limits shall not exceed 1,000 µg/L

2. Notwithstanding the effluent limitations established by this permit, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR 340-41-445 except in the following defined mixing zone:

   The allowable mixing zone is defined as that portion of the storm drainage system from the point of discharge to the Willamette River, and the Willamette River within 15 meters of the point of discharge from the storm drainage system.

SCHEDULE B
Minimum Monitoring and Reporting Requirements (unless otherwise approved in writing by the Department)

Outfall Number 001

Item or Parameter	Minimum Frequency	Type of Sample
Flow	Daily	Estimate
Temperature	Daily	Grab
PH	Daily	Grab
Oil and grease	Weekly	Grab
Phenols *	Monthly	Grab
Polynuclear Aromatic Hydrocarbons**	Quarterly	Grab

* Test procedures for phenols should conform with Standard Methods No. 5530C, 19th Edition or equivalent.

** Test procedures for polynuclear aromatic hydrocarbons (PAH) should be EPA Method 610 or equivalent.

SCHEDULE D
Special Conditions

1. Sanitary wastes shall be disposed of to the City of Portland municipal sewage system.

2. An adequate contingency plan for prevention and handling of spills and unplanned discharges shall be in force at all times. A continuing program of employee orientation and education shall be maintained to ensure awareness of the necessity of good inplant control and quick and proper action in the event of a spill or accident.

3. No emulsifying agents or detergents shall be discharged into or otherwise be allowed to enter into the oil-water separator. The use of Chemcoa 1035-A is allowed unless the City of Portland Bureau of Environmental Services requests that its use be discontinued.

NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations

Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to $25,000 or by imprisonment for not more than one year, or by both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, a person who knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state, is subject to a Class B felony punishable by a fine not to exceed $200,000 and up to 10 years in prison.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee shall correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application shall be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;

b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee shall comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality and/or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Prohibition of bypass.

(1) Bypass is prohibited unless:

(a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(c) The permittee submitted notices and requests as required under General Condition B.3.c.

(2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

c. Notice and request for bypass.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the causes(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and

(4) The permittee complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

a. Definitions

(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.

(3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

b. Prohibition of overflows. Overflows are prohibited unless:

(1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and

(3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee shall take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a

fine of not more than $10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results

Monitoring results shall be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports shall be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value shall be recorded unless otherwise specified in this permit.

7. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.

8. Retention of Records

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents

Records of monitoring information shall include:

a. The date, exact place, time and methods of sampling or measurements;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

10. Inspection and Entry

The permittee shall allow the Director, or an authorized representative upon the presentation of credentials to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and

d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall comply with Oregon Administrative Rules (OAR) 340, Division 52, "Review of Plans and Specifications". Except where exempted under OAR 340-52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers shall be commenced until the plans and specifications are submitted to and approved by the Department. The permittee shall give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit shall be transferred to a third party without prior written approval from the Director. The permittee shall notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permittee becomes aware of the circumstances. During normal business hours, the Department's Regional office shall be called. Outside of normal business hours, the Department shall be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected;

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and

e. Public notification steps taken, pursuant to General Condition B.7.

The following shall be included as information which must be reported within 24 hours under this paragraph:

a. Any unanticipated bypass which exceeds any effluent limitation in this permit.

b. Any upset which exceeds any effluent limitation in this permit.

c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected; and

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with 40 CFR 122.22.

9. Falsification of Reports

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed $100,000 per violation and up to 5 years in prison.

10. Changes to Indirect Dischargers - **[Applicable to Publicly Owned Treatment Works (POTW) only]**

The permittee must provide adequate notice to the Department of the following:

a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants and;

b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

c. For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

11. Changes to Discharges of Toxic Pollutant - **[Applicable to existing manufacturing, commercial, mining, and silvicultural dischargers only]**

The permittee must notify the Department as soon as they know or have reason to believe of the following:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:

(1) One hundred micrograms per liter (100 mg/l);

(2) Two hundred micrograms per liter (200 mg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 mg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

(4) The level established by the Department in accordance with 40 CFR 122.44(f).

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 mg/l);

(2) One milligram per liter (1 mg/l) for antimony;

(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

(4) The level established by the Department in accordance with 40 CFR 122.44(f).

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.

2. TSS means total suspended solids.

3. mg/l means milligrams per liter.

4. kg means kilograms.

5. m^3/d means cubic meters per day.

6. MGD means million gallons per day.

7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.

8. FC means fecal coliform bacteria.

9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-41.

10. CBOD means five day carbonaceous biochemical oxygen demand.

11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.

12. Quarter means January through March, April through June, July through September, or October through December.

13. Month means calendar month.

14. Week means a calendar week of Sunday through Saturday.

15. Total residual chlorine means combined chlorine forms plus free residual chlorine.

16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.

17. POTW means a publicly owned treatment works.

SPEED LETTER®

TO Mr. Elliott Zais
Oregon DEQ

FROM Amos Famerie
Koppers Ind., Inc

SUBJECT Land Use Compatibility Statement

FOLD NO. 9 or 10

MESSAGE

Here's a copy for your file

Regards.

DATE 11/12/98 SIGNED Amos

REPLY

FOLD FOR NO. 9

FOLD FOR NO. 10

DATE SIGNED

WilsonJones®

SENDER: DETACH AND RETAIN YELLOW COPY, SEND WHITE AND PINK COPIES. **RECIPIENT:** RETAIN WHITE COPY, RETURN PINK COPY.

44-902 • Triplicate
44-904 • Quadruplicate

Carbonless Snap-A-Way® Forms ©1993 ACCO USA, Inc. Made in U.S.A.

Post-it® Fax Note 7671	Date 11/12/98	# of pages ▶ 2
To AMOS KAMERER	From MARK W	
Co./Dept. Koppers Industries	Co. Portland Planning	
Phone # 286-3681	Phone # 823-7526	
Fax # 285-2831	Fax # 823-7765	

DEPARTMENT OF ENVI
LAND USE COMPATIBILI

WHAT IS A LUCS? The LUCS is the process DEQ uses to c land use are consistent with the local government compreher

WHY IS A LUCS REQUIRED? Oregon law requires that state agency activities that impact land use be consistent with local comprehensive plans. DEQ Division 18 administrative rules identify agency actions that are defined as programs affecting land use. These programs must have a process for determining local plan consistency.

WHEN IS A LUCS REQUIRED? A LUCS is required for nearly all DEQ permits, some general permits, and certain approvals of plans or related activities that affect land use. These activities are listed in this form. In cases where a source needs more than one DEQ permit or approval, a single LUCS may be used.

A permit modification requires a LUCS when:
- there is a physical expansion on the property or the use of additional land is proposed.
- there is a significant increase in discharges to water.
- there is a relocation of an outfall outside of the source property, or
- there is any physical change or change of operation of an air pollutant source that results in a net significant emission rate increase as defined in OAR 340-28-110.

A permit renewal requires a LUCS if one has not previously been submitted, or if one of the above four permit modification factors apply.

HOW TO COMPLETE A LUCS:
- The LUCS form is included in the DEQ permit application or approval packet.
- Applicant fills out Section 1 of the LUCS and then submits it to the city or county planning office.
- The local planning office determines if the business or facility meets all local planning requirements.
- The local planning office must attach written findings of fact for local reviews or other necessary planning approvals.
- that are required of the applicant.
- The applicant includes the completed LUCS and attachments with the permit application or approval request submittal.

WHERE TO GET HELP: Questions on the LUCS are to be directed to region staff responsible for processing the source permit or other approval application or, to Management Services Division at 800-452-4011 or (503) 229-6408.

SECTION 1 - TO BE FILLED OUT BY APPLICANT

1. Name of applicant: Koppers Industries, Inc. Contact person: Amos Kamerer
Telephone No.: (503) 286-3681

Mailing address:
7540 NW Saint Helens Rd.
Portland, Oregon 97210-3663

Location address:
7540 NW Saint Helens Rd.
Portland, Oregon 97210-3663

Tax Acct.# R-96112-1110 Tax Lot # 42,111,129&130 Township _____ Range _____ Section 12&13,T1N, R1W
Latitude 45:34:38 Longitude 122:45:32

2. Describe type of business or facility and the services or products provided:
The plant receives creosote, refined coal tar and coal tar pitches via trucks and railcars. These products are stored in heated tanks and are shipped to customers throughout the northwest states via tank trucks and tank cars.

3. Circle the type of DEQ permits or approvals being applied for at this time:

Air Notice of Const.	SW Disp/Auth Permit	Fed. Permit WQ Cert.
(Air Discharge Permit*)	Waste Tire Storage Permit	WQ NPDES/WPCF Permit**
Title V Air Permit	HW/PCB Storage/Trmt/Disch Permit	WQ Stormwater General Permit
Air Indirect Source Permit	Pollution Control Bond Request	Wastewater/Sewer Facility Plan***
Parking/Traffic Circ. Plan	Wastewater Revolving Loan Request	Other WQ General Permit #_____****

* excluding portable facility permits ** for onsite const-installation permits use DEQ form F:\WLANDUSE.OSS
*** includes review of plan changes that require use of new land **** general permits 600,700,1200CA, and 1500 are exempt.

4. This application is for a: new permit X permit renewal___ permit modification___ other

SECTION 2 - TO BE FILLED OUT BY CITY OR COUNTY LAND USE PLANNING OFFICIAL

5. The facility proposal is located: X inside city limits ___inside UGB ___outside UGB

6. Name of city or county that has land use jurisdiction*: CITY OF PORTLAND
*"jurisdiction means the legal entity that is responsible for land use decisions for the subject property or land use.

7. The business or facility complies with all applicable local land use requirements: X yes ___no

7a. List all local reviews or approvals that were required of the applicant before the LUCS consistency was determined *(This does not include past requirements that do not relate to the pending DEQ permit request.)*:

NONE

7b. If no, identify reasons for noncompliance, or list requirement(s) that the applicant must comply with before LUCS consistency can be determined:

7c. Is local government currently processing remaining requirements to attain LUCS consistency: ___yes X no
Anticipated date of decision _____

7d. Is a public notice and hearing required ? ___yes X no hearing date _____

8. Planning official reviewer's telephone number: ( ) 823-7716

SIGNATURES

Christina Scarzello CHRISTINA SCARZELLO Title Associate Planner Date 9-15-97
Planning Official print planning official's name

CHRISTINA SCARZELLO _____ Title_____ Date_____
Planning Official print planning official's name
(depending upon city/county agreement on jurisdiction outside city limits but within UGB)

ATTENTION: A LUCS approval cannot be accepted by DEQ until all local requirements have been met. Written findings of fact for all local decisions addressed under 7 thru 7b must be attached to the LUCS.

C:\DALE\RTOUNG\LUCSWORD.DOC

DEPARTMENT OF ENVIRONMENTAL QUALITY
LAND USE COMPATIBILITY STATEMENT (LUCS)

WHAT IS A LUCS? The LUCS is the process DEQ uses to determine that DEQ permits and other approvals that affect land use are consistent with the local government comprehensive plan.

WHY IS A LUCS REQUIRED? Oregon law requires that state agency activities that impact land use be consistent with local comprehensive plans. DEQ Division 18 administrative rules identify agency actions that are defined as programs affecting land use. These programs must have a process for determining local plan consistency.

WHEN IS A LUCS REQUIRED? A LUCS is required for nearly all DEQ permits, some general permits, and certain approvals of plans or related activities that affect land use. These activities are listed in this form. In cases where a source needs more than one DEQ permit or approval, a single LUCS may be used.

A permit modification requires a LUCS when:
- there is a physical expansion on the property or the use of additional land is proposed
- there is a significant increase in discharges to water
- there is a relocation of an outfall outside of the source property, or
- there is any physical change or change of operation of an air pollutant source that results in a net significant emission rate increase as defined in OAR 340-28-110.

A permit renewal requires a LUCS if one has not previously been submitted, or if one of the above four permit modification factors apply.

HOW TO COMPLETE A LUCS:
- The LUCS form is included in the DEQ permit application or approval packet.
- Applicant fills out Section 1 of the LUCS and then submits it to the city or county planning office.
- The local planning office determines if the business or facility meets all local planning requirements.
- The local planning office must attach written findings of fact for local reviews or other necessary planning approvals that are required of the applicant.
- The applicant includes the completed LUCS and attachments with the permit application or approval request submittal.

WHERE TO GET HELP: Questions on the LUCS are to be directed to region staff responsible for processing the source permit or other approval application or, to Management Services Division at 800-452-4011 or (503) 229-6408.

SECTION 1 - TO BE FILLED OUT BY APPLICANT

1. Name of applicant_____ Contact person_____
   Telephone _____

   Mailing address: _____

   Location address: _____

Tax Acct.#_____Tax Lot # _____ Township_____Range_____ Section_____
Latitude _____ Longitude_____

2. Describe type of business or facility and the services or products provided:
_____
_____
_____
_____

3. Circle the type of DEQ permits or approvals being applied for at this time:

Koppers018639

Air Notice of Const.	SW Compost Regst-Permit	Wastewater/Sewer Facility Plan ***
Air Discharge Permit*	SW Letter Authorization Permit	WQ NPDES/WPCF Permit **
Title V Air Permit	SW MRF Permit	WQ Stormwater General Permit
Air Indirect Source Permit	SW Trans. Station Permit	Other WQ General Permit #_****
Parking/Traffic Circ. Plan	SW Waste Tire Storage Permit	Fed. Permit WQ Cert.
SW Disposal Permit	HW/PCB Storage/Trmt/Disch Permit	Pollution Control Bond Request
SW Treatment Permit	Wastewater Revolving Loan Request	

** excluding portable facility permits ** for onsite const-installation permits use DEQ form F:\WLANDUSE.OSS*
**** includes review of plan changes that require use of new land **** general permits,600,700,1200CA, and 1500 are exempt.*

4. This application is for a: new permit___ permit renewal___ permit modification___ other_____

SECTION 2 - TO BE FILLED OUT BY CITY OR COUNTY PLANNING OFFICIAL

5. The facility proposal is located: ___inside city limits ___inside UGB ___ outside UGB

6. Name of city or county that has land use jurisdiction*:_____
**jurisdiction means the legal entity that is responsible for land use decisions for the subject property or land use.*

7. The business or facility complies with all applicable local land use requirements: ___yes ___no

7a. List all local reviews or approvals that were required of the applicant before the LUCS consistency was determined *(This does not include past requirements that do not relate to the pending DEQ permit request.)*:

_____
_____
_____
_____
_____
_____

7b. If no, identify reasons for noncompliance, or list requirement(s) that the applicant must comply with before LUCS consistency can be determined:

_____
_____
_____
_____
_____
_____

7c. Is local government currently processing remaining requirements to attain LUCS consistency: ___yes ____no
Anticipated date of decision _____

7d. Is a public notice and hearing required ? ____yes ____no hearing date _____

8. Planning official reviewer's telephone number:_____

SIGNATURES

_____ _____ Title_____ Date_____
Planning Official print planning official's name

_____ _____ Title_____ Date_____
Planning Official print planning official's name
(depending upon city/county agreement on jurisdiction outside city limits but within UGB)

ATTENTION: A LUCS approval cannot be accepted by DEQ until all local requirements have been met. Written findings of fact for all local decisions addressed under 7 thru 7b must be attached to the LUCS.

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY SOURCE INSPECTION FORM

Permittee: Koppers Industries, Inc.	Source Address/ Phone Number: 7540 NW St. Helens Rd. Portland, Oregon 286-3681	Date Inspected: 6 November 1998
Facility Name: Portland Plant		Official Contacted/Title: Amos Kamerer, Plant Manager
File Number (Site ID No.): 47430	Mailing Address: 7540 NW St. Helens Rd. Portland OR 97210-3663	
EPA ID Number (NPDES Only): OR 0000077-9		
Permit Number: 101003	Type of Inspection: ☑ Compliance ☐ Technical Assistance ☐ Land Application/Reuse	Samples Taken: ☐ YES ☑ NO ☐ SPLIT
Permit Exp. Date: 11-30-1997		System Classification: ___ Treatment ✓ Collection

COMPLIANCE STATUS	In Comp	Not In Comp	On Sch
Schedule A Waste Discharge Limitations	☑	☐	☐
Schedule B Monitoring & Reporting	☑	☐	☐
Schedule C Compliance Conditions	☐	☐	☐
Schedule D Special Conditions	☑	☐	☐
General Conditions	☑	☐	☐
SFO or MAO Requirements	☐	☐	☐

VIOLATIONS NOTED: None

SUMMARY OF INSPECTION FINDINGS & COMMENTS / RECOMMENDATIONS

I met with Amos Kamerer, Plant Manager. I checked lab data for January 1998 to Oct. We walked around the facility. The tank farm appears to be properly maintained and operated. The outfall is flowing clear.

Facility is in compliance.

☐ CONTINUED ON ATTACHED PAGE

PREPARATION TIME: 0.5 HRS
INSPECTION TIME: 2.0 HRS
(include travel to & from)
FOLLOW-UP TIME: 0.5 HRS
(inspection write-up, enforcement if necessary)
cc: ☑ Water Quality Division ☑ Permittee

Elliot J. Zais — NWR
Inspector's Name (Please Print) — Region & Office

Elliot J. Zais — 6 November 1998
Inspector's Signature — Date

MW\WC13\WC13053.5 (6/95)

cc: T. Self, 11/10/98

Koppers018641

KOPPERS INDUSTRIES

FAX TRANSMITTAL

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Telephone: 503-286-3681
Fax: 503-285-2831

TO: Bill Swearingen DATE: 6/17/97

FROM: Amos TOTAL # OF PAGES: 6

1) NPDES Renewal Application was overnighted to you today

2) See my response to John Holtrop is attached.

3) Re cleaning agents, attached is more info on the CHEMCOA 1035-A product that we use,
- we need to continue to use this product on our loaders for clean up purposes, can we request a modification of our Permit?

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Amos S. Kamerer
Plant Manager

Telephone: 503-286-3681
Fax: 503-285-2831

June 17, 1997

Mr. John Holtrop
Industrial Stormwater Section
City of Portland
Environmental Services
6543 N. Burlington Ave.
Portland, Or. 97203-5452

Dear Mr. Holtrop,

This is to acknowledge receipt of your May 19, 1997 letter and to advise you that we have ceased using the cleaning agent in the plant, as requested.

Also, we have established a log for documentation purposes, covering the inspection of our oil separator, rain drains and sumps in the plant. A copy is attached.

If you have any questions you can call me at any time.

Sincerely,

Amos S. Kamerer

cc: Elliot Zais, DEQ
W. E. Swearingen, KII

Oil Separator, Rain Drain & Sump

Inspection Log

Location:		Condition:	
Oil Separator	Date Inspected	Satisfactory	Cleaned
Rain Drains			
Front "Outfall"			
Front Parking Lot (4")			
Front Parking Lot (6")			
Center Roadway			
Hot Oil Area			
Melter Area			
Back Roadway			
T-68 Area			
Sumps			
Boiler House			
Creosote Unloading			
Track Five			
New Pitch Building			
T-67			

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

May 19, 1997

RECEIVED
MAY 22 1997
KOPPERS INDS., INC.
PORTLAND, OR

Amos Kamerer
Koppers Industries Inc.
7540 NW St. Helens Rd.
Portland, OR 97210

RE: Facility Inspection of May 15, 1997.

Dear Mr. Kamerer:

Thank you for your time and cooperation during the recent inspection of your facility. There were several items noted during the inspection that need to be addressed.

1. There are currently at least two types of washing operations taking place at the facility. It is understood that the purpose of the washing is to remove pencil pitch dust that accumulates on trucks and loaders and that this water then would be treated in the same manner as stormwater at the facility. This type of discharge is not covered by your current NPDES permit. **I contacted DEQ and they feel as does the City that this type of activity would produce a waste stream similar to that that is covered by your permit and that the activity can continue so long as no cleaning agents or chemicals are used in the washing process.** It is felt that cleaning agents might cause an increase of the level of suspected pollutants at the site, in the stormwater discharge. Your current NPDES permit is due to expire November 30, 1997. At that time you should request that DEQ add washing to the activities that are covered by your permit.

2. It is recommended that any site maintenance or inspections in the form of sweeping, or catch basin and separator cleaning be documented.

Please respond in writing by June 20, 1997 that the use of cleaning agents will be discontinued. If you have any questions you can call me at 823-7885.

Sincerely

John Holtrop
Industrial Stormwater Section

CC: Elliot Zais, DEQ

CHEMCOA
CHEMICAL CORPORATION OF AMERICA

Citrus Based Asphalt
Cleaner and Remover

PRODUCT BULLETIN
CHEMCOA 1035-A

1099

GENERAL DESCRIPTION:

CHEMCOA 1035-A combines the gentleness and safety of citrus based cleaners with the high solvency of petroleum based products. CHEMCOA 1035-A is safe on painted* and unpainted surfaces for the removal of asphalt as well as the cleaning of parts and industrial equipment.

APPLICATION:

CHEMCOA 1035-A can be used undiluted for difficult cleaning applications. It also forms an emulsion with water for general use cleaning. CHEMCOA 1035-A is a powerful but safe cleaning solvent.

PROPERTIES:

Emulsification	Rapid
pH	7.8
Wetting	Excellent
Flash Point	147 degrees F
Appearance	Clear, Orange Liquid
Odor	Citrus
Density	7.31 lbs./gal.

CAUTIONS:

May be harmful if swallowed. Causes irritation.
Keep out of reach of children DO NOT take internally.
Combustible - DO NOT store or use near open flame.

PACKAGING:

Available in 30 or 55 gallon steel drums.
F.O.B. CHEMCOA Plant - Portland, Oregon

* While CHEMCOA 1035-A is safe on most painted surfaces the color fastness of the paint should be checked before beginning cleaning process.

2525 S.E. NINTH AVENUE · PORTLAND, OR 97202 · 503/232-3334

Koppers018646

CHEMCOA 1035-A

Material Safety Data Sheet

QUICK IDENTIFIER
Common Name: (Used on label and list)

May be used to comply with OSHA's Hazard Communication Standard. 29CFR 1910. 1200. Standard must be consulted for specific requirements.

SECTION 1 -

Manufacturer's Name	Chemical Corporation of America		
Address	2525 S.E. 9th Avenue	Emergency Telephone No.	(503) 232-3334
City, State, ZIP	Portland OR 97202	Other Information Calls	(503) 232-3334
Signature of Person Responsible for Preparation (Optional)		Date Prepared	9/25/91, Revised 05/23/97

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common name(s)	% (optional)	OSHA PEL	ACGIH TLV	Other Exposure Limits	CAS NO.
Petroleum Hydrocarbon		500 ppm	200 ppm	TLV/STEL 200 ppm	64742-88-7

SARA Section III, Section 313 Hazardous Chemicals: None

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point	350° - 367° F.	Specific Gravity (H_2O = 1)	0.76	Vapor Pressure (mm Hg)	2.2
	Vapor Density (Air = 1) 5.3				
Solubility in Water	Emulsifiable	Reactivity in Water	None		
Appearance and Odor	Clear, Yellow Liquid, Citrus Odor	Melting Point	Unknown		

SECTION 4 - FIRE & EXPLOSION DATA

Flash Point	147°F. C	Method Used	C.O.C.	Flammable Limits in Air % by Volume	LEL Lower	1.0	UEL Upper 7.0
Auto Ignition Temperature	Unknown	Extinguisher Media	Water spray or fog, foam, dry chemical or CO_2				

Special Fire Fighting Procedures: Do not use a direct water stream. Avoid any accumulation of water as product will float. Firefighters should use self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: Cool fire-exposed containers, surrounding equipment and structures with water.

SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA)

CHEMCOA 1035-A

Stability: Unstable ☐ Stable ☒ Conditions to Avoid: High heat and open flames

Incompatibility (Materials to Avoid): Oxidizing materials.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and unidentified organics.

Hazardous Polymerization: May Occur ☐ Will Not Occur ☒ Conditions to Avoid: None known.

SECTION 6 - HEALTH HAZARDS

1. Acute (Immediate): Eye & pulmonary irritation.

2. Chronic (Delayed Effect): None reported

Signs and Symptoms of Exposure: Coughing, dizziness and drying of skin. Mists irritate eyes, mucous membranes and upper respiratory tract.

Medical Conditions Generally Aggravated by Exposure: None known.

Chemical Listed as Carcinogen or Potential Carcinogen — National Toxicology Program: Yes ☐ No ☒; I.A.R.C. Monographs: Yes ☐ No ☒; OSHA: Yes ☐ No ☒

Emergency and First Aid Procedures: If over-exposure occurs, follow procedures outlined below:

ROUTES OF ENTRY

1. Inhalation: Remove victim to fresh air. Administer oxygen. Consult physician.
2. Eyes: Flush w/water for 15 minutes. If irritation persists, consult physician.
3. Skin: Wash affected area with soap and water. Launder clothes before reuse.
4. Ingestion: Do not induce vomiting. Aspiration hazard, Immediately consult physician.

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage: Store in a cool, dry place with adequate ventilation. Keep container closed when not in use.

Other Precautions: Empty containers of this material contain residue. Observe all hazard practices for empty containers. Do not weld on or cut empty containers.

Steps to be Taken in Case Material is Released or Spilled: Eliminate sources of ignition. Contain spill with a non-combustible absorbant, and place in drums for disposal. Do not discharge into sewer system.

Waste Disposal Methods (Consult federal, state, and local regulations): Dispose of wastes in compliance with federal, state and local regulations.

SECTION 8 - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection (Specify Type): None normally required. If mists generated, use NIOSH approved respirator.

Ventilation: recommended — Local Exhaust: Recommended — Mechanical (General): if needed — Special: none — Other: none

Protective Gloves: Rubber or Neoprene — Eye Protection: Goggles, eye wash fountain

Other Protective Clothing or Equipment: Long sleeves and trousers.

Work/Hygienic Practices: Wash thoroughly after handling.

IMPORTANT

JUN 13 1997

JOHN OXFORD
KOPPERS INDUSTRIES INC
7540 NW ST HELENS RD
PORTLAND OR 97210-3663

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

Re: NPDES Permit No. 101003
File No. 47430
Multnomah County
OR 000077-9

Our records indicate that your present National Pollutant Discharge Elimination System (NPDES) wastewater disposal permit will expire on 11-30-97.

For permit renewal, the enclosed application form must be completed, signed by your responsible official, and returned to the Department of Environmental Quality as soon as possible. Except for government agencies and private individuals, the official name of the applicant must reflect the legal name (not the assumed business name) of the business as it is currently registered with the Department of Commerce.

On September 28, 1988, new federal rules went into effect which require all NPDES permittees to submit a completed FORM 2C with each renewal application. This will require a detailed analytical evaluation of each effluent discharged. Please study the application carefully and submit all of the data required.

We will appreciate receiving your application as soon as possible, as it takes several months to process an application. A filing fee of $50 and a processing fee of $975 are required to accompany this application. If modification of effluent limits is being requested by this application, the amount of the application processing fee will also increase. No action can be taken on the application until the fees are paid.

The completed renewal application and Form 2C should be sent with fee payment to:

DEQ Business Office
811 SW Sixth Avenue
Portland OR 97204

If you have any questions regarding the renewal application or the associated fees, please give me a call at (503) 229-5438. An invoice for the amount of the fees will be sent to you upon request.

Sincerely,

Julie Schmitt

Julie Schmitt, Permits Coordinator
Water Quality Source Control
Northwest Region

js
exp-iwnp.doc
Enclosures
cc: Environmental Protection Agency
File

RECEIVED
JUN 16 1997
KOPPERS INDS. INC.
PORTLAND OR

John A. Kitzhaber
Governor

2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471
DEQ-1

United States
Environmental Protection
Agency

Office of
Enforcement
Washington, DC 20460

EPA Form 3510-2C
Revised August 1990
Previous editions
are obsolete

Permits Division

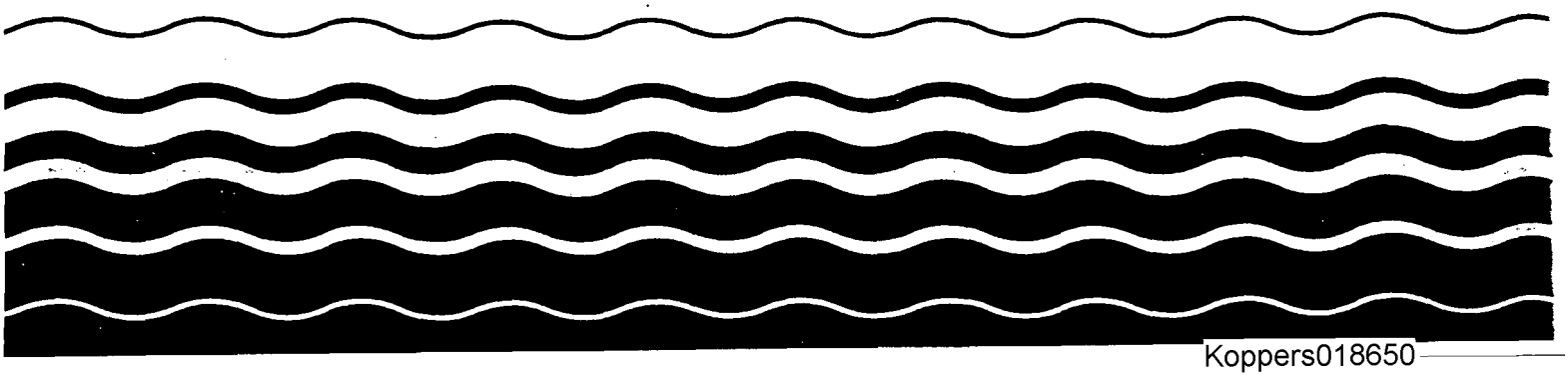
EPA

Application Form 2C - Wastewater Discharge Information

Consolidated Permits Program

This form must be completed by all persons applying for an EPA permit to discharge wastewater *(existing manufacturing, commercial, mining, and silvicultural operations)*.

Printed on Recycled Paper



Koppers018650

Paperwork Reduction Act Notice

The public reporting burden for this collection of information is estimated to average 33 hours per response. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information to the Chief, Information Policy Branch (PM-223), US Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked **Attention:** Desk Officer for EPA.

Printed on Recycled Paper

INSTRUCTION:
PERMIT RENEWAL APPLICATION

A. **Reference Information:** Complete the required information in detail. If there has been a name change, address change or change in personnel since the last application, please make a special note to that effect.

B. **General Questions:** If more space is needed than provided on the application form, please attach as many additional pages as necessary in order to supply whatever explanation or diagrams are needed to update the treatment and disposal methods used and the characteristics of the waste discharged or otherwise disposed.

C. **Special Questions and Requested Information:**

1. Please elaborate on any proposed expansions, cutbacks, improvements or changes of any kind that will or may affect the quantity or quality of pollutants discharged.

2. Each condition of your present permit should be reviewed and an assessment made as to the success you have had in meeting the requirements and limitations.

Signature on Application:

DEFINITION:
Signature Line — "Legally Authorized Representative"

- **Corporation** — By a principal executive officer of at least the level of vice president;
- **Partnership or Sole Proprietorship** — By a general partner or the proprietor (owner), respectively; or
- **Municipality, State, Federal, or other Public Facility** — By either a principal executive officer or ranking elected official.

Other Instructions:

Submit this application and required fees (attached) as soon as possible. They should be submitted at **least 180 days prior** to the expiration of your present permit.

Please return Application Fee and Application to: Department of Environmental Quality, Business Office, 811 SW 6th Avenue, Portland, OR 97204

Koppers018652

INSTRUCTIONS — FORM 2c
Application for Permit to Discharge Wastewater
EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL OPERATIONS

This form must be completed by all applicants who check "yes" to item II-C in Form 1.

Public Availability of Submitted Information.

Your application will not be considered complete unless you answer every question on this form and on Form 1. If an item does not apply to you, enter "NA" *(for not applicable)* to show that you considered the question.

You may not claim as confidential any information required by this form or Form 1, whether the information is reported on the forms or in an attachment. This information will be made available to the public upon request.

Any information you submit to EPA which goes beyond that required by this form or Form 1 you may claim as confidential, but claims for information which is effluent data will be denied. If you do not assert a claim of confidentiality at the time of submitting the information, EPA may make the information public without further notice to you. Claims of confidentiality will be handled in accordance with EPA's business confidentiality regulations at 40 CFR Part 2.

Definitions

All significant terms used in these instructions and in the form are defined in the glossary found in the General Instructions which accompany Form 1.

EPA ID Number

Fill in your EPA Identification Number at the top of each page of Form 2c. You may copy this number directly from item I of Form 1.

Item I

You may use the map you provided for item XI of Form 1 to determine the latitude and longitude of each of your outfalls and the name of the receiving water.

Item II-A

The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, sanitary flows, cooling water, and stormwater runoff. You may group similar operations into a single unit, labeled to correspond to the more detailed listing in item II-B. The water balance should show average flows. Show all significant losses of water to products, atmosphere, and discharge. You should use actual measurements whenever available; otherwise use your best estimate. An example of an acceptable line drawing appears in Figure 2c-1 to these instructions.

Item II-B

List all sources of wastewater to each outfall. Operations may be described in general terms *(for example, "dye-making reactor" or "distillation tower").* You may estimate the flow contributed by each source if no data are available. For stormwater discharges you may estimate the average flow, but you must indicate the rainfall event upon which the estimate is based and the method of estimation. For each treatment unit, indicate its size, flow rate, and retention time, and describe the ultimate disposal of any solid or liquid wastes not discharged. Treatment units should be listed in order and you should select the proper code from Table 2c-1 to fill in column 3-b for each treatment unit. Insert "XX" into column 3-b if no code corresponds to a treatment unit you list. If you are applying for a permit for a privately owned treatment works, you must also identify all of your contributors in an attached listing.

Item II-C

A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities. A discharge is seasonal if it occurs only during certain parts of the year. Fill in every applicable column in this item for each source of intermittent or seasonal discharges. Base your answers on actual data whenever available; otherwise, provide your best estimate. Report the highest daily value for flow rate and total volume in the "Maximum Daily" columns *(columns 4-a-2 and 4-b-2).* Report the average of all daily values measured during days when discharge occurred within the last year in the "Long Term Average" columns *(columns 4-a-1 and 4-b-1).*

Item III-A

All effluent guidelines promulgated by EPA appear in the Federal Register and are published annually in 40 CFR Subchapter N. A guideline applies to you if you have any operations contributing process wastewater in any subcategory covered by a BPT, BCT, or BAT guideline. If you are unsure whether you are covered by a promulgated effluent guideline, check with your EPA Regional office *(Table 1 in the Form 1 instructions).* You must check "yes" if an applicable effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe that a promulgated effluent guideline has been remanded for reconsideration by a court and does not apply to your operations, you may check "no."

Item III-B

An effluent guideline is expressed in terms of production *(or other measure of operation)* if the limitation is expressed as mass of pollutant per operational parameter; for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace". An example of a guideline not expressed in terms of a measure of operation is one which limits the concentration of pollutants.

Item III-C

This item must be completed only if you checked "yes" to item III-B. The production information requested here is necessary to apply effluent guidelines to your facility and you cannot claim it as confidential. However, you do not have to indicate how the reported information was calculated. Report quantities in the units of measurement used in the applicable effluent guideline. The production figures provided must be based on actual daily production and not on design capacity or on predictions of future operations. To obtain alternate limits under 40 CFR 122.45(b)(2)(ii), you must define your maximum production capability and demonstrate to the Director that your actual production is substantially below maximum production capability and that there is a reasonable potential for an increase above actual production during the duration of the permit.

Item IV-A

If you check "yes" to this question, complete all parts of the chart, or attach a copy of any previous submission you have made to EPA containing same information.

Item IV-B

You are not required to submit a description of future pollution control projects if you do not wish to or if none is planned.

Item V-A, B, C, and D

The items require you to collect and report data on the pollutants discharged for each of your outfalls. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

General Instructions

Part A requires you to report at least one analysis for each pollutant listed. Parts B and C require you to report analytical data in two ways. For some pollutants, you may be required to mark 'X' in the "Testing Required" column *(column 2-a, Part C),* and test *(sample and analyze)* and report the levels of the pollutants in your discharge whether or not you expect them to be present in your discharge. For all others, you must mark 'X' in either the "Believe Present" column or the "Believe Absent" column *(columns 2-a or 2-b, Part B, and columns 2-b or 2-c, Part C)* based on your best estimate, and test for those which you believe to be present. *(See specific instructions on the form and below for Parts A through D.)* Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, inter-

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ITEM V — A, B, C, and D *(continued)*

mediate and final products and byproducts, and any previous analyses known to you of your effluent or similar effluent. *(For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated stormwater runoff.)* If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an 'X' in the "Intake" column.

A. Reporting. All levels must be reported as concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper instead of filling out pages V-1 to V-9 if the separate sheets contain all the required information in a format which is consistent with pages V-1 to V-9 in spacing and in identification of pollutants and columns. *(For example, the data system used in your GC/MS analysis may be able to print data in the proper format.)* Use the following abbreviations in the columns headed "Units" *(column 3, Part A, and column 4, Parts B and C)*.

Concentration	Mass
ppm ..... parts per million	lbs ..... pounds
mg/l .... milligrams per liter	ton ..... tons *(English tons)*
ppb ..... parts per billion	mg ..... milligrams
ug/l .... micrograms per liter	g ..... grams
	kg ..... kilograms
	T ..... tonnes *(metric tons)*

All reporting of values for metals must be in terms of "total recoverable metal," unless:

(1) An applicable, promulgated effluent limitation or standard specifies the limitation for the metal in dissolved, valent, or total form; or

(2) All approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium); or

(3) The permitting authority has determined that in establishing case-by-case limitations it is necessary to express the limitations on the metal in dissolved, valent, or total form to carry out the provisions of the CWA.

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert '1' into the "Number of Analyses" column *(columns 2-a and 2-d, Part A, and column 3-a, 3-d, Parts B and C)*. The permitting authority may require you to conduct additional analyses to further characterize your discharges. For composite samples, the daily value is the total mass or average concentration found in a composite sample taken over the operating hours of the facility during a 24-hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24-hour period.

If you measure more than one daily value for a pollutant and those values are representative of your wastestream, you must report them. You must describe your method of testing and data analysis. You also must determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" columns *(column 2-c, Part A, and column 3-c, Parts B and C)*, and the total number of daily values under the "Number of Analyses" columns *(column 2-d, Part A, and columns 3-d, Parts B and C)*. Also, determine the average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30-day Values" columns *(column 2-c, Part A, and column 3-b, Parts B and C)*.

B. Sampling: The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your EPA or State permitting authority for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes which contribute wastewater in normal operation, and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit, or at any site adequate for the collection of a representative sample.

For pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, and fecal coliform, grab samples must be used. For all other pollutants 24-hour composite samples must be used. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period of greater than 24 hours. For stormwater discharges a minimum of one to four grab samples may be taken, depending on the duration of the discharge. One grab must be taken in the first hour *(or less)* of discharge, with one additional grab *(up to a minimum of four)* taken in each succeeding hour of discharge for discharges lasting four or more hours. The Director may waive composite sampling for any outfall for which you demonstrate that use of an automatic sampler is infeasible and that a minimum of four grab samples will be representative of your discharge.

Grab and composite samples are defined as follows:

Grab sample: An individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

Composite sample: A combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically. For GC/MS Volatile Organic Analysis (VOA), aliquots must be combined in the laboratory immediately before analysis. Four (4) *(rather than eight)* aliquots or grab samples should be collected for VOA. These four samples should be collected during actual hours of discharge over a 24 hour period and need not be flow proportioned. Only one analysis is required.

The Agency is currently reviewing sampling requirements in light of recent research on testing methods. Upon completion of its review, the Agency plans to propose changes to the sampling requirements.

Data from samples taken in the past may be used, provided that:

All data requirements are met;

Sampling was done no more than three years before submission; and

All data are representative of the present discharge.

Among the factors which would cause the data to be unrepresentative are significant changes in production level, changes in raw materials, processes, or final products, and changes in wastewater treatment. When the Agency promulgates new analytical methods in 40 CFR Part 136, EPA will provide information as to when you should use the new methods to generate data on your discharges. Of course, the Director may request additional information, including current quantitative data, if she or he determines it to be necessary to assess your discharges.

C. Analysis: You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding time, preservation techniques, and the quality control measures which you used. If you have two or more substantially identical outfalls, you may request permission from your permitting authority to sample and analyse only one outfall and submit the results of the analysis

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ITEM V — A, B, C, and D *(continued)*

for other substantially identical outfalls. If your request is granted by the permitting authority, on a separate sheet attached to the application form, identify which outfall you did test, and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

D. Reporting of Intake Data: You are not required to report data under the "Intake" columns unless you wish to demonstate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. NPDES regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the "Intake" columns report the average of the results of analyses on your intake water *(if your water is treated before use, test the water after it is treated)*, and discuss the requirements for a net limitation with your permitting authority.

Part V-A

Part V-A must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. However, at your request, the Director may waive the requirement to test for one or more of these pollutants, upon a determination that available information is adequate to support issuance of the permit with less stringent reporting requirements for these pollutants. You also may request a waiver for one or more of these pollutants for your category or subcategory from the Director, Office of Water Enforcement and Permits. See discussion in General Instructions to item V for definitions of the columns in Part A. The "Long Term Average Values" column *(column 2-c)* and "Maximum 30-day Values" column *(column 2-b)* are not compulsory but should be filled out if data are available.

Use composite samples for all pollutants in this Part, except use grab samples for pH and temperature. See discussion in General Instructions to Item V for definitions of the columns in Part A. The "Long Term Average Values" column *(column 2-c)* and "Maximum 30-Day Values" column *(column 2-b)* are not compulsory but should be filled out if data are available.

Part V-B

Part V-B must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. You must report quantitative data if the pollutant(s) in question is limited in an effluent limitations guideline either directly, or indirectly but expressly through limitation on an indicator *(e.g., use of TSS as an indicator to control the discharge of iron and aluminum)*. For other discharged pollutants you must provide quantitative data or explain their presence in your discharge. EPA will consider requests to the Director of the Office of Water Enforcement and Permits to eliminate the requirement to test for pollutants for an industrial category or subcategory. Your request must be supported by data representative of the industrial category or subcategory in question. The data must demonstrate that individual testing for each applicant is unnecessary, because the facilities in the category or subcategory discharge substantially identical levels of the pollutant or discharge the pollutant uniformly at sufficiently low levels. Use composite samples for all pollutants you analyze for in this part, except use grab samples for residual chlorine, oil and grease, and fecal coliform. The "Long Term Average Values" column *(column 3-c)* and "Maximum 30-day Values" column *(column 3-b)* are not compulsory but should be filled out if data are available.

Part V-C

Table 2c-2 lists the 34 "primary" industry categories in the left-hand column. For each outfall, if any of your processes which contribute wastewater falls into one of those categories, you must mark 'X' in "Testing Required" column *(column 2-a)* and test for (1) all of the toxic metals, cyanide, and total phenols, and (2) the organic toxic pollutants contained in Table 2c-2 as applicable to your category, unless you qualify as a small business *(see below)*. The organic toxic pollutants are listed by GC/MS fractions on pages V-4 to V-9 in Part V-C. For example, the Organic Chemicals Industry has an asterisk in all four fractions; therefore, applicants in this category must test for all organic toxic pollutants in Part V-C. The inclusion of total phenols in Part V-C is not intended to classify total phenols as a toxic pollutant. If you are applying for a permit for a privately owned treatment works, determine your testing requirements on the basis of the industry categories of your contributors. When you determine which industry category you are in to find your testing requirements, you are not determining your category for any other purpose and you are not giving up your right to challenge your inclusion in that category *(for example, for deciding whether an effluent guideline is applicable)* before your permit is issued. For all other cases *(secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions)*, you must mark "X" in either the "Believed Present" column *(column 2-b)* or the "Believed Absent" column *(column 2-c)* for each pollutant. For every pollutant you know or have reason to believe is present in your discharge in concentrations of 10 ppb or greater, you must report quantitative data. For acrolein, acrylonitrile, 2, 4 dinitrophenol, and 2-methyl-4, 6 dinitrophenol, where you expect these four pollutants to be discharged in concentrations of 100 ppb or greater, you must report quantitative data. For every pollutant expected to be discharged in concentrations less than the thresholds specified above, you must either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged. At your request the Director, Office of Water Enforcement and Permits, may waive the requirement to test for pollutants for an industrial category or subcategory. Your request must be supported by data representatives of the industrial category or subcategory in question. The data must demonstrate that individual testing for each applicant is unnecessary, because the facilities in question discharge substantially identical levels of the pollutant, or discharge the pollutant uniformly at sufficiently low levels. If you qualify as a small business *(see below)* you are exempt from testing for the organic toxic pollutants, listed on pages V-4 to V-9 in Part C. For pollutants in intake water, see discussion in General Instructions to this item. The "Long Term Average Values" column *(column 3-c)* and "Maximum 30-day Values" column *(column 3-b)* are not compulsory but should be filled out if data are available. You are required to mark "Testing Required" for dioxin if you use or manufacture one of the following compounds:

(a) 2,4,5-trichlorophenoxy acetic acid, (2,4,5-T);

(b) 2-(2,4,5-trichlorophenoxy) propanoic acid, (Silvex, 2,4,5-TP);

(c) 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate, (Erbon);

(d) 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate, (Ronnel);

(e) 2,4,5,-trichlorophenol, (TCP); or

(f) hexachlorophene, (HCP).

If you mark "Testing Required" or "Believed Present," you must perform a screening analysis for dioxins, using gas chromotography with an electron capture detector. A TCDD standard for quantitation is not required. Describe the results of this analysis in the space provided; for example, "no measurable baseline deflection at the retention time of TCDD" or "a measurable peak within the tolerances of the retention time of TCDD." The permitting authority may require you to perform a quantitative analysis if you report a positive result. The Effluent Guidelines Division of EPA has collected and analyzed samples from some plants for the pollutants listed in Part C in the course of its BAT guidelines development program. If your effluents are sampled and analyzed as part of this program in the last three years, you may use these data to answer Part C provided that the permitting authority approves, and provided that no process change or change in raw materials or operating practices has occurred since the samples were taken that would make the analyses unrepresentative of your current discharge.

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ITEM V — A, B, C, and D *(continued)*

Small Business Exemption: If you qualify as a "small business," you are exempt from the reporting requirements for the organic toxic pollutants, listed on pages V-4 to V-9 in Part C. There are two ways in which you can qualify as a "small business." If your facility is a coal mine, and if your probable total annual production is less than 100,000 tons per year, you may submit past production data or estimated future production *(such as a schedule of estimated total production under 30 CFR § 795.14(c))* instead of conducting analyses for the organic toxic pollutants. If your facility is not a coal mine, and if your gross total annual sales for the most recent three years average less than $100,000 per year *(in second quarter 1980 dollars)*, you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants. The production or sales data must be for the facility which is the source of the discharge. The data should not be limited to production or sales for the process or processs which contribute to the discharge, unless those are the only processes at your facility. For sales data, in situations involving intracorporate transfer of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national product price deflator *(second quarter of 1980* = 100). This index is available in *National Income and Product Accounts of the United States (Department of Commerce, Bureau of Economic Analysis)*.

Part V-D

List any pollutants in Table 2c-3 that you believe to be present and explain why you believe them to be present. No analysis is required, but if you have analytical data, you must report it.

Note: Under 40 CFR 117.12(a)(2), certain discharges of hazardous substances *(listed in Table 2c-4 of these instructions)* may be exempted from the requirements of section 311 of CWA, which establishes reporting requirements, civil penalties and liability for cleanup costs for spills of oil and hazardous substances. A discharge of a particular substance may be exempted if the origin, source, and amount of the discharged substances are identified in the NDPES permit application or in the permit, if the permit contains a requirement for treatment of the discharge, and if the treatment is in place. To apply for an exclusion of the discharge of any hazardous substance from the requirements of section 311, attach additional sheets of paper to your form, setting forth the following information:

1. The substance and the amount of each substance which may be discharged.
2. The origin and source of the discharge of the substance.
3. The treatment which is to be provided for the discharge by:
   a. An onsite treatment system separate from any treatment system treating your normal discharge;
   b. A treatment system designed to treat your normal discharge and which is additionally capable of treating the amount of the substance identified under paragraph 1 above; or
   c. Any combination of the above.

See 40 CFR §117.12(a)(2) and (c), published on August 29, 1979, in 44 FR 50766, or contact your Regional Office *(Table 1 on Form 1, Instructions)*, for further information on exclusions from section 311.

Item VI

This requirement applies to current use or manufacture of a toxic pollutant as an intermediate or final product or byproduct. The Director may waive or modify the requirement if you demonstrate that it would be unduly burdensome to identify each toxic pollutant and the Director has adequate information to issue your permit. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts.

Item VII

Self explanatory. The permitting authority may ask you to provide additional details after your application is received.

Item IX

The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application, ... shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than six months, or by both."

40 CFR Part 122.22 requires the certification to be signed as follows:

(A) *For a corporation:* by a responsible corporate official. For purposes of this section, a responsible corporate official means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25,000,000 *(in second-quarter 1980 dollars)*, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: EPA does not require specific assignments or delegation of authority to responsible corporate officers identified in §122.22(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate position under §122.22(a)(1)(ii) rather than to specific individuals.

(B) *For a partnership or sole proprietorship:* by a general partner or the proprietor, respectively; or

(C) *For a municipality, State, Federal, or other public agency:* by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal Agency includes (i) the chief executive officer of the Agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the Agency *(e.g., Regional Administrators of EPA)*. Applications for Group II stormwater dischargers may be signed by a duly authorized representative *(as defined in 40 CFR 122.22(b))* of the individuals identified above.

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CODES FOR TREATMENT UNITS

PHYSICAL TREATMENT PROCESSES

1–A . . . . . .Ammonia Stripping
1–B. . . . . .Dialysis
1–C. . . . . .Diatomaceous Earth Filtration
1–D . . . . . .Distillation
1–E. . . . . .Electrodialysis
1–F. . . . . .Evaporation
1–G . . . . . .Flocculation
1–H . . . . . .Flotation
1–I . . . . . .Foam Fractionation
1–J. . . . . .Freezing
1–K . . . . . .Gas–Phase Separation
1–L. . . . . .Grinding *(Comminutors)*
1–M . . . . . .Grit Removal
1–N . . . . . .Microstraining
1–O . . . . . .Mixing
1–P. . . . . .Moving Bed Filters
1–Q . . . . . .Multimedia Filtration
1–R . . . . . .Rapid Sand Filtration
1–S. . . . . .Reverse Osmosis *(Hyperfiltration)*
1–T. . . . . .Screening
1–U . . . . . .Sedimentation *(Settling)*
1–V . . . . . .Slow Sand Filtration
1–W . . . . . .Solvent Extraction
1–X . . . . . .Sorption

CHEMICAL TREATMENT PROCESSES

2–A . . . . . .Carbon Adsorption
2–B. . . . . .Chemical Oxidation
2–C. . . . . .Chemical Precipitation
2–D . . . . . .Coagulation
2–E. . . . . .Dechlorination
2–F. . . . . .Disinfection *(Chlorine)*
2–G . . . . . .Disinfection *(Ozone)*
2–H . . . . . .Disinfection *(Other)*
2–I . . . . . .Electrochemical Treatment
2–J. . . . . .Ion Exchange
2–K . . . . . .Neutralization
2–L. . . . . .Reduction

BIOLOGICAL TREATMENT PROCESSES

3–A . . . . . .Activated Sludge
3–B. . . . . .Aerated Lagoons
3–C. . . . . .Anaerobic Treatment
3–D . . . . . .Nitrification–Denitrification
3–E. . . . . .Pre–Aeration
3–F. . . . . .Spray Irrigation/Land Application
3–G . . . . . .Stabilization Ponds
3–H . . . . . .Trickling Filtration

OTHER PROCESSES

4–A . . . . . .Discharge to Surface Water
4–B. . . . . .Ocean Discharge Through Outfall
4–C. . . . . .Reuse/Recycle of Treated Effluent
4–D . . . . . .Underground Injection

SLUDGE TREATMENT AND DISPOSAL PROCESSES

5–A . . . . . .Aerobic Digestion
5–B. . . . . .Anaerobic Digestion
5–C. . . . . .Belt Filtration
5–D . . . . . .Centrifugation
5–E. . . . . .Chemical Conditioning
5–F. . . . . .Chlorine Treatment
5–G . . . . . .Composting
5–H . . . . . .Drying Beds
5–I . . . . . .Elutriation
5–J. . . . . .Flotation Thickening
5–K . . . . . .Freezing
5–L. . . . . .Gravity Thickening
5–M . . . . . .Heat Drying
5–N . . . . . .Heat Treatment
5–O . . . . . .Incineration
5–P. . . . . .Land Application
5–Q . . . . . .Landfill
5–R . . . . . .Pressure Filtration
5–S. . . . . .Pyrolysis
5–T. . . . . .Sludge Lagoons
5–U . . . . . .Vacuum Filtration
5–V . . . . . .Vibration
5–W . . . . . .Wet Oxidation

TABLE 2C-1

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TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS INDUSTRY CATEGORY*

INDUSTRY CATEGORY	GC/MS FRACTION[1]			
	Volatile	Acid	Base/Neutral	Pesticide
Adhesives and sealants	X	X	X	–
Aluminum forming	X	X	X	–
Auto and other laundries	X	X	X	X
Battery manufacturing	X	–	X	–
Coal mining	X	X	X	X
Coil coating	X	X	X	–
Copper forming	X	X	X	–
Electric and electronic compounds	X	X	X	X
Electroplating	X	X	X	–
Explosives manufacturing	–	X	X	–
Foundries	X	X	X	–
Gum and wood chemicals	X	X	X	X
Inorganic chemicals manufacturing	X	X	X	–
Iron and steel manufacturing	X	X	X	–
Leather tanning and finishing	X	X	X	X
Mechanical products manufacturing	X	X	X	–
Nonferrous metals manufacturing	X	X	X	X
Ore mining	X	X	X	X
Organic chemicals manufacturing	X	X	X	X
Paint and ink formulation	X	X	X	X
Pesticides	X	X	X	X
Petroleum refining	X	X	X	X
Pharmaceutical preparations	X	X	X	–
Photographic equipment and supplies	X	X	X	X
Plastic and synthetic materials manufacturing	X	X	X	X
Plastic processing	X	–	–	–
Porcelain enameling	X	–	X	X
Printing and publishing	X	X	X	X
Pulp and paperboard mills	X	X	X	X
Rubber processing	X	X	X	–
Soap and detergent manufacturing	X	X	X	–
Steam electric power plants	X	X	X	–
Textile mills	X	X	X	X
Timber products processing	X	X	X	X

*See note at conclusion of 40 CFR Part 122, Appendix D (1983) for explanation of effect of suspensions on testing requirements for primary industry categories.

[1]The pollutants in each fraction are listed in Item V—C.

X = Testing required.

— = Testing not required.

TABLE 2C-2

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TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT

TOXIC POLLUTANT

Asbestos

HAZARDOUS SUBSTANCES

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophenoxyacetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid

HAZARDOUS SUBSTANCES

Dichlorvos
Diethyl amine
Dimethyl amine
Dintrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amine
Monomethyl amine

HAZARDOUS SUBSTANCES

Naled
Napthenic acid
Nitrotoluene
Parathion
Phenolsulfonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Styrene
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)
TDE (Tetrachlorodiphenyl ethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Trichlorofon
Triethanolamine
Triethylamine
Trimethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

Koppers018659

1. Acetaldehyde
2. Acetic acid
3. Acetic anhydride
4. Acetone cyanohydrin
5. Acetyl bromide
6. Acetyl chloride
7. Acrolein
8. Acrylonitrile
9. Adipic acid
10. Aldrin
11. Allyl alcohol
12. Allyl chloride
13. Aluminum sulfate
14. Ammonia
15. Ammonium acetate
16. Ammonium benzoate
17. Ammonium bicarbonate
18. Ammonium bichromate
19. Ammonium bifluoride
20. Ammonium bisulfite
21. Ammonium carbamate
22. Ammonium carbonate
23. Ammonium chloride
24. Ammonium chromate
25. Ammonium citrate
26. Ammonium fluoroborate
27. Ammonium fluoride
28. Ammonium hydroxide
29. Ammonium oxalate
30. Ammonium silicofluoride
31. Ammonium sulfamate
32. Ammonium sulfide
33. Ammonium sulfite
34. Ammonium tartrate
35. Ammonium thiocyanate
36. Ammonium thiosulfate
37. Amyl acetate
38. Aniline
39. Antimony pentachloride
40. Antimony potassium tartrate
41. Antimony tribromide
42. Antimony trichloride
43. Antimony trifluoride
44. Antimony trioxide
45. Arsenic disulfide
46. Arsenic pentoxide
47. Arsenic trichloride
48. Arsenic trioxide
49. Arsenic trisulfide
50. Barium cyanide
51. Benzene
52. Benzoic acid
53. Benzonitrile
54. Benzoyl chloride
55. Benzyl chloride
56. Beryllium chloride
57. Beryllium fluoride
58. Beryllium nitrate
59. Butylacetate
60. n-Butylphthalate
61. Butylamine
62. Butyric acid
63. Cadmium acetate
64. Cadmium bromide
65. Cadmium chloride
66. Calcium arsenate
67. Calcium arsenite
68. Calcium carbide
69. Calcium chromate
70. Calcium cyanide
71. Calcium dodecylbenzenesulfonate
72. Calcium hypochlorite
73. Captan
74. Carbaryl
75. Carbofuran
76. Carbon disulfide
77. Carbon tetrachloride
78. Chlordane
79. Chlorine
80. Chlorobenzene
81. Chloroform
82. Chloropyrifos
83. Chlorosulfonic acid
84. Chromic acetate
85. Chromic acid
86. Chromic sulfate
87. Chromous chloride
88. Cobaltous bromide
89. Cobaltous formate
90. Cobaltous sulfamate
91. Coumaphos
92. Cresol
93. Crotonaldehyde
94. Cupric acetate
95. Cupric acetoarsenite
96. Cupric chloride
97. Cupric nitrate
98. Cupric oxalate
99. Cupric sulfate
100. Cupric sulfate ammoniated
101. Cupric tartrate
102. Cyanogen chloride
103. Cyclohexane
104. 2,4-D acid (2,4-Dichlorophenoxyacetic acid)
105. 2,4-D esters (2,4-Dichlorophenoxyacetic acid esters)
106. DDT
107. Diazinon
108. Dicamba
109. Dichlobenil
110. Dichlone
111. Dichlorobenzene
112. Dichloropropane
113. Dichloropropene
114. Dichloropropene-dichloproropane mix
115. 2,2-Dichloropropionic acid
116. Dichlorvos
117. Dieldrin
118. Diethylamine
119. Dimethylamine
120. Dinitrobenzene
121. Dinitrophenol
122. Dinitrotoluene
123. Diquat
124. Disulfoton
125. Diuron
126. Dodecylbenzesulfonic acid
127. Endosulfan
128. Endrin
129. Epichlorohydrin
130. Ethion
131. Ethylbenzene
132. Ethylenediamine
133. Ethylene dibromide
134. Ethylene dichloride
135. Ethylene diaminetetracetic acid (EDTA)
136. Ferric ammonium citrate
137. Ferric ammonium oxalate
138. Ferric chloride
139. Ferric fluoride
140. Ferric nitrate
141. Ferric sulfate
142. Ferrous ammonium sulfate
143. Ferrous chloride
144. Ferrous sulfate
145. Formaldehyde
146. Formic acid
147. Fumaric acid
148. Furfural
149. Guthion
150. Heptachlor
151. Hexachlorocyclopentadiene
152. Hydrochloric acid
153. Hydrofluoric acid
154. Hydrogen cyanide
155. Hydrogen sulfide
156. Isoprene
157. Isopropanolamine dodecylbenzenesulfonate
158. Kelthane
159. Kepone
160. Lead acetate
161. Lead arsenate
162. Lead chloride
163. Lead fluoborate
164. Lead flourite
165. Lead iodide
166. Lead nitrate
167. Lead stearate
168. Lead sulfate
169. Lead sulfide
170. Lead thiocyanate
171. Lindane
172. Lithium chromate
173. Malathion
174. Maleic acid
175. Maleic anhydride
176. Mercaptodimethur
177. Mercuric cyanide
178. Mercuric nitrate
179. Mercuric sulfate
180. Mercuric thiocyanate
181. Mercurous nitrate
182. Methoxychlor
183. Methyl mercaptan
184. Methyl methacrylate
185. Methyl parathion
186. Mevinphos
187. Mexacarbate
188. Monoethylamine
189. Monomethylamine
190. Naled
191. Naphthalene
192. Naphthenic acid
193. Nickel ammonium sulfate
194. Nickel chloride
195. Nickel hydroxide
196. Nickel nitrate
197. Nickel sulfate
198. Nitric acid
199. Nitrobenzene
200. Nitrogen dioxide
201. Nitrophenol
202. Nitrotoluene
203. Paraformaldehyde

TABLE 2C-4

Koppers018660

204. Parathion
205. Pentachlorophenol
206. Phenol
207. Phosgene
208. Phosphoric acid
209. Phosphorus
210. Phosphorus oxychloride
211. Phosphorus pentasulfide
212. Phosphorus trichloride
213. Polychlorinated biphenyls (PCB)
214. Potassium arsenate
215. Potassium arsenite
216. Potassium bichromate
217. Potassium chromate
218. Potassium cyanide
219. Potassium hydroxide
220. Potassium permanganate
221. Propargite
222. Propionic acid
223. Propionic anhydride
224. Propylene oxide
225. Pyrethrins
226. Quinoline
227. Resorcinol
228. Selenium oxide
229. Silver nitrate
230. Sodium
231. Sodium arsenate
232. Sodium arsenite
233. Sodium bichromate
234. Sodium bifluoride
235. Sodium bisulfite
236. Sodium chromate
237. Sodium cyanide
238. Sodium dodecylbenzenesulfonate
239. Sodium fluoride
240. Sodium hydrosulfide
241. Sodium hydroxide
242. Sodium hypochlorite
243. Sodium methylate
244. Sodium nitrite
245. Sodium phosphate (dibasic)
246. Sodium phosphate (tribasic)
247. Sodium selenite
248. Strontium chromate
249. Strychnine
250. Styrene
251. Sulfuric acid
252. Sulfur monochloride
253. 2,4,5-T acid (2,4,5-Trichlorophenoxyacetic acid)
254. 2,4,5-T amines (2,4,5-Trichlorophenoxy acetic acid amines)
255. 2,4,5-T esters (2,4,5-Trichlorophenoxy acetic acid esters)
256. 2,4,5-T salts (2,4,5-Trichlorophenoxy acetic acid salts)
257. 2,4,5-TP acid (2,4,5-Trichlorophenoxy propanoic acid)
258. 2,4,5-TP acid esters (2,4,5-Trichlorophenoxy propanoic acid esters)
259. TDE (Tetrachlorodiphenyl ethane)
260. Tetraethyl lead
261. Tetraethyl pyrophosphate
262. Thallium sulfate
263. Toluene
264. Toxaphene
265. Trichlorofon
266. Trichloroethylene
267. Trichlorophenol
268. Triethanolamine dodecylbenzenesulfonate
269. Triethylamine
270. Trimethylamine
271. Uranyl acetate
272. Uranyl nitrate
273. Vanadium pentoxide
274. Vanadyl sulfate
275. Vinyl acetate
276. Vinylidene chloride
277. Xylene
278. Xylenol
279. Zinc acetate
280. Zinc ammonium chloride
281. Zinc borate
282. Zinc bromide
283. Zinc carbonate
284. Zinc chloride
285. Zinc cyanide
286. Zinc fluoride
287. Zinc formate
288. Zinc hydrosulfite
289. Zinc nitrate
290. Zinc phenolsulfonate
291. Zinc phosphide
292. Zinc silicofluoride
293. Zinc sulfate
294. Zirconium nitrate
295. Zirconium potassium flouride
296. Zirconium sulfate
297. Zirconium tetrachloride

TABLE 2C-4 *(continued)*

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LINE DRAWING

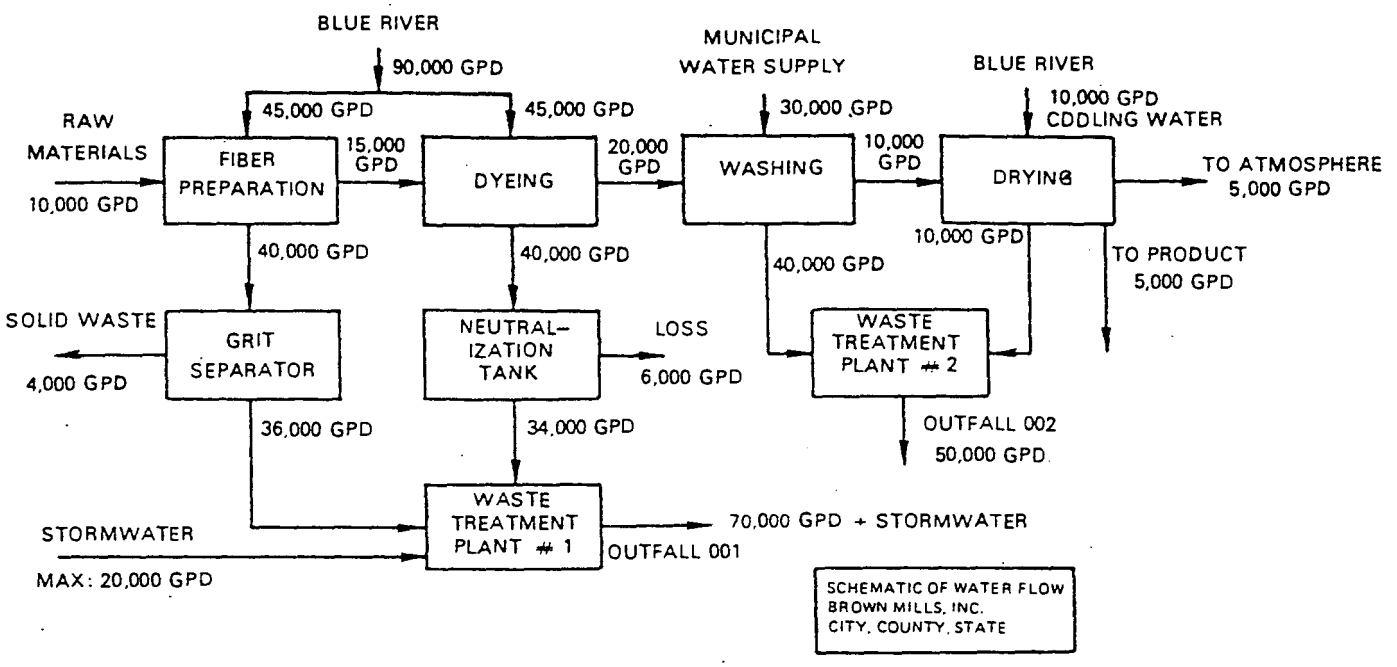

FIGURE 2C-1

Please print or type in the unshaded areas only.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS

Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

ITINUED FROM THE FRONT

Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES *(complete the following table)* ☐ NO *(go to Section III)*

OUTFALL UMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK *(specify average)*	b. MONTHS PER YEAR *(specify average)*	a. FLOW RATE *(in mgd)*		b. TOTAL VOLUME *(specify with units)*		c. DURATION *(in days)*
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

PRODUCTION

Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES *(complete Item III-B)* ☐ NO *(to to Section IV)*

Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☐ YES *(complete Item III-C)* ☐ NO *(go to Section IV)*

If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS *(list outfall numbers)*
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	

IMPROVEMENTS

Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES *(complete the following table)* ☐ NO *(go to Item IV-B)*

ENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

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CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES *(list all such pollutants below)* ☐ NO *(go to Item VI-B)*

Koppers018665

ITINUED FROM THE FRONT

BIOLOGICAL TOXICITY TESTING DATA

o you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a ıceiving water in relation to your discharge within the last 3 years?

☐ YES *(identify the test(s) and describe their purposes below)* ☐ NO *(go to Section VIII)*

CONTRACT ANALYSIS INFORMATION

ıre any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ NO *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*

ERTIFICATION

tify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ıre that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or e persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
C. SIGNATURE	D. DATE SIGNED

Koppers018666

Please print or type in the unshaded areas only.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*

Form Approved
OMB No. 2040-0086
Approval expires 5-31-92

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER

EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS

Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

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CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES *(complete the following table)* ☐ NO *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK *(specify average)*	b. MONTHS PER YEAR *(specify average)*	a. FLOW RATE *(in mgd)*		b. TOTAL VOLUME *(specify with units)*		c. DURATION *(in days)*
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES *(complete Item III-B)* ☐ NO *(to to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☐ YES *(complete Item III-C)* ☐ NO *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS *(list outfall numbers)*
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	

IV. IMPROVEMENTS

Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES *(complete the following table)* ☐ NO *(go to Item IV-B)*

IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES *(list all such pollutants below)* ☐ NO *(go to Item VI-B)*

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES *(identify the test(s) and describe their purposes below)* ☐ NO *(go to Section VIII)*

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ NO *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*

CERTIFICATION

ertify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to sure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or ose persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. m aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
C. SIGNATURE	D. DATE SIGNED

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*

OUTFALL NO.

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand *(BOD)*												
b. Chemical Oxygen Demand *(COD)*												
c. Total Organic Carbon *(TOC)*												
d. Total Suspended Solids *(TSS)*												
e. Ammonia *(as N)*												
f. Flow	VALUE		VALUE		VALUE					VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)														
b. Chlorine, Total Residual														
c. Color														
d. Fecal Coliform														
e. Fluoride (16984-48-8)														
f. Nitrate–Nitrite *(as N)*														

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CAS NO. (If available)	3. EFFLUENT a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)														
h. Oil and Grease														
i. Phosphorus (as P), Total (7723-14-0)														
j. Radioactivity														
(1) Alpha, Total														
(2) Beta, Total														
(3) Radium, Total														
(4) Radium 226, Total														
k. Sulfate (as SO_4) (14808-79-8)														
l. Sulfide (as S)														
m. Sulfite (as SO_3) (14265-45-3)														
n. Surfactants														
o. Aluminum, Total (7429-90-5)														
p. Barium, Total (7440-39-3)														
q. Boron, Total (7440-42-8)														
r. Cobalt, Total (7440-48-4)														
s. Iron, Total (7439-89-6)														
t. Magnesium, Total (7439-95-4)														
u. Molybdenum, Total (7439-98-7)														
v. Manganese, Total (7439-96-5)														
w. Tin, Total (7440-31-5)														
x. Titanium, Total (7440-32-6)														

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)															
2M. Arsenic, Total (7440-38-2)															
3M. Beryllium, Total, 7440-41-7)															
4M. Cadmium, Total (7440-43-9)															
5M. Chromium, Total (7440-47-3)															
6M. Copper, Total (7440-50-8)															
7M. Lead, Total (7439-92-1)															
8M. Mercury, Total (7439-97-6)															
9M. Nickel, Total (7440-02-0)															
10M. Selenium, Total (7782-49-2)															
11M. Silver, Total (7440-22-4)															
12M. Thallium, Total (7440-28-0)															
13M. Zinc, Total (7440-66-6)															
14M. Cyanide, Total (57-12-5)															
15M. Phenols, Total															
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)				DESCRIBE RESULTS											

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AND CAS NUMBER (If available)	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (If available) (2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (If available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)															
2V. Acrylonitrile (107-13-1)															
3V. Benzene (71-43-2)															
4V. Bis (Chloromethyl) Ether (542-88-1)															
5V. Bromoform (75-25-2)															
6V. Carbon Tetrachloride (56-23-5)															
7V. Chlorobenzene (108-90-7)															
8V. Chlorodibromomethane (124-48-1)															
9V. Chloroethane (75-00-3)															
10V. 2-Chloroethylvinyl Ether (110-75-8)															
11V. Chloroform (67-66-3)															
12V. Dichlorobromomethane (75-27-4)															
13V. Dichlorodifluoromethane (75-71-8)															
14V. 1,1-Dichloroethane (75-34-3)															
15V. 1,2-Dichloroethane (107-06-2)															
16V. 1,1-Dichloroethylene (75-35-4)															
17V. 1,2-Dichloropropane (78-87-5)															
18V. 1,3-Dichloropropylene (542-75-6)															
19V. Ethylbenzene (100-41-4)															
20V. Methyl Bromide (74-83-9)															
21V. Methyl Chloride (74-87-3)															

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EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)															
23V. 1,1,2,2-Tetrachloroethane (79-34-5)															
24V. Tetrachloroethylene (127-18-4)															
25V. Toluene (108-88-3)															
26V. 1,2-Trans-Dichloroethylene (156-60-5)															
27V. 1,1,1-Trichloroethane (71-55-6)															
28V. 1,1,2-Trichloroethane (79-00-5)															
29V. Trichloroethylene (79-01-6)															
30V. Trichlorofluoromethane (75-69-4)															
31V. Vinyl Chloride (75-01-4)															
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)															
2A. 2,4-Dichlorophenol (120-83-2)															
3A. 2,4-Dimethylphenol (105-67-9)															
4A. 4,6-Dinitro-O-Cresol (534-52-1)															
5A. 2,4-Dinitrophenol (51-28-5)															
6A. 2-Nitrophenol (88-75-5)															
7A. 4-Nitrophenol (100-02-7)															
8A. P-Chloro-M-Cresol (59-50-7)															
9A. Pentachlorophenol (87-86-5)															
10A. Phenol (108-95-2)															
11A. 2,4,6-Trichlorophenol (88-06-2)															

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NUMBER (If available)	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)															
2B. Acenaphtylene (208-96-8)															
3B. Anthracene (120-12-7)															
4B. Benzidine (92-87-5)															
5B. Benzo (a) Anthracene (56-55-3)															
6B. Benzo (a) Pyrene (50-32-8)															
7B. 3,4-Benzo-fluoranthene (205-99-2)															
8B. Benzo (ghi) Perylene (191-24-2)															
9B. Benzo (k) Fluoranthene (207-08-9)															
10B. Bis (2-Chloro-ethoxy) Methane (111-91-1)															
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)															
12B. Bis (2-Chloroiso-propyl) Ether (102-60-1)															
13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7)															
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)															
15B. Butyl Benzyl Phthalate (85-68-7)															
16B. 2-Chloro-naphthalene (91-58-7)															
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)															
18B. Chrysene (218-01-9)															
19B. Dibenzo (a,h) Anthracene (53-70-3)															
20B. 1,2-Dichloro-benzene (95-50-1)															
21B. 1,3-Dichloro-benzene (541-73-1)															

CONTINUE ON PAGE V-7

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EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)															
23B. 3,3'-Dichlorobenzidine (91-94-1)															
24B. Diethyl Phthalate (84-66-2)															
25B. Dimethyl Phthalate (131-11-3)															
26B. Di-N-Butyl Phthalate (84-74-2)															
27B. 2,4-Dinitrotoluene (121-14-2)															
28B. 2,6-Dinitrotoluene (606-20-2)															
29B. Di-N-Octyl Phthalate (117-84-0)															
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)															
31B. Fluoranthene (206-44-0)															
32B. Fluorene (86-73-7)															
33B. Hexachlorobenzene (118-74-1)															
34B. Hexachlorobutadiene (87-68-3)															
35B. Hexachlorocyclopentadiene (77-47-4)															
36B. Hexachloroethane (67-72-1)															
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)															
38B. Isophorone (78-69-1)															
39B. Naphthalene (81-20-3)															
40B. Nitrobenzene (98-95-3)															
41B. N-Nitrosodimethylamine (62-75-9)															
42B. N-Nitrosodi-N-Propylamine (621-64-7)															

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CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-8)															
44B. Phenanthrene (85-01-8)															
45B. Pyrene (129-00-0)															
46B. 1,2,4 - Trichlorobenzene (120-82-1)															
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)															
2P. α-BHC (319-84-6)															
3P. β-BHC (319-85-7)															
4P. γ-BHC (58-89-9)															
5P. δ-BHC (319-85-8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
10P. Dieldrin (60-57-1)															
11P. α-Endosulfan (115-29-7)															
12P. β-Endosulfan (115-29-7)															
13P. Endosulfan Sulfate (1031-07-8)															
14P. Endrin (72-20-8)															
15P. Endrin Aldehyde (7421-93-4)															
16P. Heptachlor (76-44-8)															

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CONTINUED FROM PAGE V-8

EPA I.D. NUMBER *(copy from Item 1 of Form 1)* | OUTFALL NUMBER

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT						d. NO. OF ANALYSES	4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)															
19P. PCB-1254 (11097-69-1)															
20P. PCB-1221 (11104-28-2)															
21P. PCB-1232 (11141-16-5)															
22P. PCB-1248 (12672-29-6)															
23P. PCB-1260 (11096-82-5)															
24P. PCB-1016 (12674-11-2)															
25P. Toxaphene (8001-35-2)															

* U.S. G.P.O.:1992-312-020:63176

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*

OUTFALL NO.

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand *(BOD)*												
b. Chemical Oxygen Demand *(COD)*												
c. Total Organic Carbon *(TOC)*												
d. Total Suspended Solids *(TSS)*												
e. Ammonia *(as N)*												
f. Flow	VALUE		VALUE		VALUE					VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)														
b. Chlorine, Total Residual														
c. Color														
d. Fecal Coliform														
e. Fluoride (16984-48-8)														
f. Nitrate-Nitrite *(as N)*														

CONTINUE ON REVERSE

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1. POLLUTANT AND CAS NO. (If available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (as N)														
h. Oil and Grease														
i. Phosphorus (as P), Total (7723-14-0)														
j. Radioactivity														
(1) Alpha, Total														
(2) Beta, Total														
(3) Radium, Total														
(4) Radium 226, Total														
k. Sulfate (as SO_4) (14808-79-8)														
l. Sulfide (as S)														
m. Sulfite (as SO_3) (14265-45-3)														
n. Surfactants														
o. Aluminum, Total (7429-90-5)														
p. Barium, Total (7440-39-3)														
q. Boron, Total (7440-42-8)														
r. Cobalt, Total (7440-48-4)														
s. Iron, Total (7439-89-6)														
t. Magnesium, Total (7439-95-4)														
u. Molybdenum, Total (7439-98-7)														
v. Manganese, Total (7439-96-5)														
w. Tin, Total (7440-31-5)														
x. Titanium, Total (7440-32-6)														

CONTINUE ON PAGE V - 3

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(If available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(If available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(If available)* (2) MASS	c. LONG TERM AVRG. VALUE *(If available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(If available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)															
2M. Arsenic, Total (7440-38-2)															
3M. Beryllium, Total, 7440-41-7)															
4M. Cadmium, Total (7440-43-9)															
5M. Chromium, Total (7440-47-3)															
6M. Copper, Total (7440-50-8)															
7M. Lead, Total (7439-92-1)															
8M. Mercury, Total (7439-97-6)															
9M. Nickel, Total (7440-02-0)															
10M. Selenium, Total (7782-49-2)															
11M. Silver, Total (7440-22-4)															
12M. Thallium, Total (7440-28-0)															
13M. Zinc, Total (7440-66-6)															
14M. Cyanide, Total (57-12-5)															
15M. Phenols, Total															
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)				DESCRIBE RESULTS											

Koppers018682

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)															
2V. Acrylonitrile (107-13-1)															
3V. Benzene (71-43-2)															
4V. Bis (Chloromethyl) Ether (542-66-1)															
5V. Bromoform (75-25-2)															
6V. Carbon Tetrachloride (56-23-5)															
7V. Chlorobenzene (108-90-7)															
8V. Chlorodibromomethane (124-48-1)															
9V. Chloroethane (75-00-3)															
10V. 2-Chloroethylvinyl Ether (110-75-8)															
11V. Chloroform (67-66-3)															
12V. Dichlorobromomethane (75-27-4)															
13V. Dichlorodifluoromethane (75-71-8)															
14V. 1,1-Dichloroethane (75-34-3)															
15V. 1,2-Dichloroethane (107-06-2)															
16V. 1,1-Dichloroethylene (75-35-4)															
17V. 1,2-Dichloropropane (78-87-5)															
18V. 1,3-Dichloropropylene (542-75-6)															
19V. Ethylbenzene (100-41-4)															
20V. Methyl Bromide (74-83-9)															
21V. Methyl Chloride (74-87-3)															

Koppers018683

CONTINUE ON PAGE V-5

EPA I.D. NUMBER *(copy from Item 1 of Form 1)* | OUTFALL NUMBER

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)															
23V. 1,1,2,2-Tetrachloroethane (79-34-5)															
24V. Tetrachloroethylene (127-18-4)															
25V. Toluene (108-88-3)															
26V. 1,2-Trans-Dichloroethylene (156-60-5)															
27V. 1,1,1-Trichloroethane (71-55-8)															
28V. 1,1,2-Trichloroethane (79-00-5)															
29V. Trichloroethylene (79-01-6)															
30V. Trichlorofluoromethane (75-69-4)															
31V. Vinyl Chloride (75-01-4)															
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)															
2A. 2,4-Dichlorophenol (120-83-2)															
3A. 2,4-Dimethylphenol (105-67-9)															
4A. 4,6-Dinitro-O-Cresol (534-52-1)															
5A. 2,4-Dinitrophenol (51-28-5)															
6A. 2-Nitrophenol (88-75-5)															
7A. 4-Nitrophenol (100-02-7)															
8A. P-Chloro-M-Cresol (59-50-7)															
9A. Pentachlorophenol (87-86-5)															
10A. Phenol (108-95-2)															
11A. 2,4,6-Trichlorophenol (88-06-2)															

Koppers018684

AND CAS NUMBER (If available)	3. EFFLUENT										4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (If available) (2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (If available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)															
2B. Acenaphtylene (208-96-8)															
3B. Anthracene (120-12-7)															
4B. Benzidine (92-87-5)															
5B. Benzo *(a)* Anthracene (56-55-3)															
6B. Benzo *(a)* Pyrene (50-32-8)															
7B. 3,4-Benzo-fluoranthene (205-99-2)															
8B. Benzo *(ghi)* Perylene (191-24-2)															
9B. Benzo *(k)* Fluoranthene (207-08-9)															
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)															
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)															
12B. Bis *(2-Chloroiso-propyl)* Ether (102-60-1)															
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)															
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)															
15B. Butyl Benzyl Phthalate (85-68-7)															
16B. 2-Chloro-naphthalene (91-58-7)															
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)															
18B. Chrysene (218-01-9)															
19B. Dibenzo *(a,h)* Anthracene (53-70-3)															
20B. 1,2-Dichloro-benzene (95-50-1)															
21B. 1,3-Dichloro-benzene (541-73-1)															

CONTINUE ON PAGE V-7

Koppers018685

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)															
23B. 3,3'-Dichlorobenzidine (91-94-1)															
24B. Diethyl Phthalate (84-66-2)															
25B. Dimethyl Phthalate (131-11-3)															
26B. Di-N-Butyl Phthalate (84-74-2)															
27B. 2,4-Dinitrotoluene (121-14-2)															
28B. 2,6-Dinitrotoluene (606-20-2)															
29B. Di-N-Octyl Phthalate (117-84-0)															
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)															
31B. Fluoranthene (206-44-0)															
32B. Fluorene (86-73-7)															
33B. Hexachlorobenzene (118-74-1)															
34B. Hexachlorobutadiene (87-68-3)															
35B. Hexachlorocyclopentadiene (77-47-4)															
36B. Hexachloroethane (67-72-1)															
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)															
38B. Isophorone (78-59-1)															
39B. Naphthalene (91-20-3)															
40B. Nitrobenzene (98-95-3)															
41B. N-Nitrosodimethylamine (62-75-9)															
42B. N-Nitrosodi-N-Propylamine (621-64-7)															

Koppers018686

CAS NUMBER (if available)	2. TEST REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)															
44B. Phenanthrene (85-01-8)															
45B. Pyrene (129-00-0)															
46B. 1,2,4 - Trichlorobenzene (120-82-1)															
GC/MS FRACTION — PESTICIDES															
1P. Aldrin (309-00-2)															
2P. α-BHC (319-84-6)															
3P. β-BHC (319-85-7)															
4P. γ-BHC (58-89-9)															
5P. δ-BHC (319-86-8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
10P. Dieldrin (60-57-1)															
11P. α-Endosulfan 115-29-7)															
12P. β-Endosulfan 115-29-7)															
13P. Endosulfan ulfate 1031-07-8)															
14P, Endrin 2-20-8)															
15P. Endrin dehyde 421-93-4)															
16P. Heptachlor 5-44-8)															

CONTINUE ON PAGE V-9

Koppers018687

EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)															
19P. PCB-1254 (11097-69-1)															
20P. PCB-1221 (11104-28-2)															
21P. PCB-1232 (11141-16-5)															
22P. PCB-1248 (12672-29-6)															
23P. PCB-1260 (11096-82-5)															
24P. PCB-1016 (12674-11-2)															
25P. Toxaphane (8001-35-2)															

Koppers018688

KOPPERS
INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001

May 31, 1989

Regional Administrator
U.S. EPA, Region X
1200 6th Avenue
Seattle, WA 93101

RE: Koppers Industries, Inc.
Portland, OR
EPA ID No. ORD027734359

Dear Sir:

Koppers Industries, Inc. is a generator of creosote contaminated soil at its facility in Portland, Oregon. Prior to August 8, 1988, this waste would have been disposed of in Chemical Security Systems Arlington, Oregon landfill. Creosote, U051, is a soft-hammer landban material.

We have contacted various disposal companies concerning incineration. Table 1 indicates the contact person and date, while Table 2 compares the costs for incineration versus those of landfilling. Table 2 demonstrates that the cost of incineration is in some cases an order of magnitude greater than landfilling the same waste and in all cases is greater than 2:1.

Koppers believes that under the provisions set forth in the final ruling of the landban regulations in 53 Federal Register, August 17, 1988, that our soft-hammer waste can be landfilled because no "practically available" technology exists. Koppers is aware that this notification/certification is only applicable at this particular time to this particular waste stream. We also understand that demonstrations/certifications of this type can only be used until May 8, 1990.

Koppers will make a good faith effort to continue its quest for economically and environmentally viable solutions to landfilling.

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

If you have any questions or comments concerning this demonstration/certification, please call.

Thank you for your time.

Sincerely,

J. R. Batchelder
Vice President & Manager
Technical & Environmental Services
Tar & Wood Products Sector

JRB:dac

cc: Chem Security Systems, Inc.
Star Route
Arlington, Oregon 97812-9709

Koppers018691

TABLE 1

SOFT HAMMER DEMONSTRATION - ATTACHMENT 2

FACILITY OWNER/OPERATOR	LOCATION	TREATMENT METHOD	TELEPHONE	CONTACT	DATE	EXPLANATION*
1. Rollins Environmental	Deerpark, Texas	Incineration	302-479-2967	Rick Gance	10/25/88	7
2. Ensco	El Dorado Arkansas	Incineration	501-223-4160	Jennifer Thornton	10/25/88	7
3. Ross Incineration	Grafton Ohio	Incineration	216-748-2171	Carol Ringler	10/25/88	6
4. Chemical Waste Mgmt.	Emelle, Alabama	Landfill	404-952-0444	Debbie Roberts	10/25/88	7

(1) _____ No recovery facilities have been located which will be able to recover the hazardous constituents of this waste.

(2) _____ There is no safe and legal treatment or recovery operation which I can perform practically at my site that will appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.

(3) _____ I have not been treating this waste at my site in the past, using a treatment technology which has been found to appreciably reduce the toxicity or mobility or mobility of the hazardous constituents of the waste.

(4) _____ Stabilization treatment will not appreciably reduce the toxicity or mobility of the hazardous constituents of this waste.

(5) _____ Incineration, thermal oxidation or other destruction technologies will not appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.

(6) _____ I have examined the possibilities of recovery/recycling, incineration, other destruction technologies, and stabilization, in order or preference, I have not been able to locate any such treatment facilities that will accept this waste.

(7) _____ The cost of treatment, shipment and disposal at the treatment/recovery facilities that have been located in greater than or equal to twice the cost of shipment and disposal at the RCRA landfill.

Additional Comments:

(8) _____ Facility will accept waste, but the cost of treatment will only be quoted upon approv al of waste stream.

TABLE 2

Facility	Quoted Price for Incineration	Price/Drum for Incineration	Transportation	Miles to Disposal Facility	Price/Drum for Transport @ 70 Drums/Load	Total Disposal Price/Drum
Rollins - Deerpark, TX	$400/drum	$400	$2.35/mi	Approx. 700 mi	$23.5	$423.50
Ensco - Eldorado, AK	$.85/lb	@ 740 lb/drum $629	$2.35/mi	Approx. 400 mi	$13.43	$642.43
Ross - Grafton, OH	Not Permitted To Accept U051					
Chemical Waste Management Emelle, AL *	$78/drum (Landfill)	$78 (Landfill)	$2.35	Approx. 150 mi.	$5.04	$83.04 (Landfill)

* Chemical Waste Management in Emelle, AL is a landfill.

Koppers018692

TABLE 3

Facility	Quoted Price for Incineration	Price/Drum for Incineration	Transportation	Miles to Disposal Facility	Price/Drum for Transport @ 70 Drums/Load	Total Disposal Price/Drum
LWD, Inc. Calvert City, KY	$400/drum	$400	$2.35/mi	Approx 300	$10	$410
Caldwell Systems, Inc. Lenoir, NC	unable to process waste					
Allied Chemical Fairfield, AL	$1.19/lb	@ 740 lb/drum $881	$2.35/mi	Approx. 10 mi	4.34	$881.34
Stauffer Chemical Company Houston, TX	Price only quoted on a per stream basis.					
Grace Laboratories	South Carolina has placed a stay on all shipments of hazardous waste into the state.					
GSX Thermal Ox Corp. Roebuck, SC	South Carolina has placed a stay on all shipments of hazardous waste into the state.					
Thermal Kem, Inc. Rockhill, SC	South Carolina has placed a stay on all shipments of hazardous waste into the state.					

Koppers018693

TABLE 4

Facility	Location	Treatment Method	Telephone	Contact Name	Date	Explanation
LWD, Inc.	Calvert City, KY	Incineration	502-395-8313	Rose Burton	3/16/89	7
Caldwell Systems, Inc.	Lenoir NC	Recycle	704-396-2308	Steadman Mathews	3/16/89	6
Allied Chemical	Fairfield,AL	Incineration	216-286-9259	Ed Madachik (Merit Environmental Mgmt.)	3/16/89	7
Stauffer Chemical Company	Houston, TX	Incineration	216-286-9259	Ed Madachik (Merit Environmental Mgmt.)	3/16/89	8
Grace Laboratories	Greer, SC	Incineration	803-879-3861			9
GSX Thermal Ox Corp.	Roebuck, SC	Incineration	803-576-1085			9
Thermal Kem, Inc.	Rockhill, SC	Incineration	803-329-9690			9

(1) _____ No recovery facilities have been located which will be able to recover the hazardous constituents of this waste.
(2) _____ There is no safe and legal treatment or recovery operation which I can perform practically at my site that will appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.
(3) _____ I have not been treating this waste at my site in the past, using a treatment technology which has been found to appreciably reduce the toxicity or mobility or mobility of the hazardous constituents of the waste.
(4) _____ Stabilization treatment will not appreciably reduce the toxicity or mobility of the hazardous constituents of this waste.
(5) _____ Incineration, thermal oxidation or other destruction technologies will not appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.

Koppers018694

Koppers018695

TABLE 4 (continued)

(6) _____ I have examined the possibilities of recovery/recycling, incineration, other destruction technologies, and stabilization, in order or preference, I have not been able to locate any such treatment facilities that will accept this waste.

(7) _____ The cost of treatment, shipment and disposal at the treatment/recovery facilities that have been located in greater than or equal than or equal to twice the cost of shipment and disposal at the RCRA landfill.

Additional Comments:

(8) _____ Facility will accept waste, but the cost of treatment will only be quoted upon approval of waste stream.

(9) _____ South Carolina has placed a stay on all shipments of hazardous waste into the state.

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001

May 31, 1989

Chem Security, Systems Inc.
Star Route
Arlington, OR 97812-9709

Attention: Rebecca

RE: Koppers Industries, Inc.
Portland, Oregon
I.D.# ORD 027734359

Dear Rebecca:

Please find attached the documentation to authorize the disposal of U051-creosote waste at the Chem Security Systems, Inc. landfill in Arlington, Oregon. This material has previously been disposed of at the Chem Security, Systems Inc. landfill, although it has been some time since that occurred. Inasmuch as U051 is a first third land ban waste, a copy of the demonstration for a land ban exemption is also attached. The original has been submitted to USEPA Region X.

Kopper's Portland terminal is not a TSD facility, but rather maintains generator status. It is thus limited to less than 90 day storage. The material being disposed was generated on April 3, 1989. Your prompt approval would be appreciated. Thank you for your consideration.

Sincerely yours,

Jack Stephenson
Buyer

JS:dc
Attachment

cc: W. Swearingen
J. Oxford

fill Northwest NPDES!

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

WATER QUALITY WASTE DISCHARGE PERMITS

RECEIVED
AUG 27 1992

KOPPERS INDS., INC.
PORTLAND, OR

Date Prepared: 8-26-92
Comments Due: 9-25-92

		EPA REFERENCE NO.
WHO ARE THE APPLICANTS:	Koppers Industries, Inc., Portland	OR000077-9
	City of Irrigon, Irrigon	UIC
	Windsor Park Properties 3, A California Limited Partnership, Corvallis	OR002695-6

WHAT IS PROPOSED: DEQ proposes to prepare permit evaluation reports and renew National Pollutant Discharge Elimination System Waste Discharge or Water Pollution Control Facilities Waste Disposal permits to the above permittees.

WHAT ARE THE HIGHLIGHTS: The permittees have not requested any significant changes from the current permits.

HOW IS THE PUBLIC AFFECTED: All permittees are existing minor sources. If the past records of their discharges show any impact on public waters, the permits will include compliance schedules for addressing any water quality concerns.

HOW TO COMMENT: Written or oral comments should be presented to DEQ by ~~25-SEP-92~~ at the following address:

Water Quality Division
Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, OR 97204-1334

WHAT IS THE NEXT STEP: The permit applications and any existing permits are available for inspection at the Water Quality Division, 811 S.W. Sixth Avenue, Portland, or at the applicable regional office. Anyone wishing to review a permit should contact DEQ so that it can be made available to them after it has been drafted.

If significant issues are raised, a public hearing may be held prior to permit issuance.

811 S.W. 6th Avenue
Portland, OR 97204

FOR FURTHER INFORMATION:
Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

PUBN.W1 (06/11/92)

8/13/92

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To Bill Swearingen	From John Oxford
Co. DEQ-1800	Co. Koppers Portland
Dept.	Phone #
Fax #	Fax #

EIVED

13 1992

INDS., INC.
AND, OR

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

CC L. Flaherty K-1701
For your comfort level!
WBS

AUG 11 1992

John A. Oxford
Koppers Industries Inc
7540 NW Saint Helens Road
Portland OR 97229

Re: NPDES Permit Renewal Application
File No. 47430
Multnomah County

Your application for renewal of your National Pollutant Discharge Elimination System (NPDES) Permit along with appropriate fees was received on July 14, 1992 and has been assigned Application Number 997220.

Any questions regarding the status of your application should be directed to this office. If additional information is required to complete the application for processing, it will be requested.

If action is not completed by the expiration date of your present permit, it will remain in effect until final action is taken.

Sincerely,

Charles K. Ashbaker, Manager
Water Quality, Northwest Region

js
cc: Water Quality Division, DEQ
File

r-np-nwr.ack

1500 SW First Avenue
Suite 750
Portland, OR 97201-5884
(503) 229-5263
DEQ-1

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

March 19, 1992

OCCUPATIONAL HEALTH & PRODUCT SAFETY
APR 22 1992

John Oxford
Koppers Industries
7540 N.W. St. Helens Road
Portland, OR 97229

Re: Permit No. 100419
File No. 47430
Multnomah County

Our records indicate that your present wastewater disposal permit will expire on November 30, 1992.

For permit renewal, the enclosed application form must be completed, signed by your responsible official, and returned to the Department of Environmental Quality as soon as possible. Except for government agencies and private individuals, the official name of the applicant must reflect the legal name (not the assumed business name) of the business as it is currently registered with the Department of Commerce.

On September 28, 1988, new federal rules went into effect which require all NPDES permittees to submit a completed FORM 2C with each renewal application. This will require a detailed analytical evaluation of each effluent discharged. Please study the application carefully and submit all of the data required.

We will appreciate receiving your application as soon as possible as it takes several months to process an application. A filing fee of $50 and a processing fee of $750 are required to accompany this application. If modification of effluent limits is being requested by this application, the amount of the application processing fee will also increase. (See attached fee schedule.) No action can be taken on the application until the fees are paid.

If you have any questions regarding the renewal application or the associated fees, please contact this office. An invoice for the amount of the fees will be sent to you upon request.

Sincerely,

(503) 229-6385

Charles K. Ashbaker, Manager
Water Quality, Northwest Region

RECEIVED
MAR 23 1992
KOPPERS INDUSTRIES, INC.
PORTLAND OR

CKA:crw
IW\WC9\WC9776 (WEXP.1)
Enclosures
cc: Water Quality Division, DEQ

Jerry Turnbaugh Replaced
503 229-5374

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1

PERMIT FEE SCHEDULE

WASTEWATER DISPOSAL PERMITS

340-45-075

(1) **Filing Fee.** Unless waived by this rule, a filing fee of $50 shall accompany any application for issuance, renewal, modification, or transfer of an NPDES permit or WPCF permit, including registration for a General Permit pursuant to OAR 340-45-033 and request for a Special Permit pursuant to OAR 340-14-050. This fee is non-refundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed. The following filing fees are waived:

(a) Small gold mining suction dredges with an intake hose diameter of 4 inches or less.

(b) Small gold mining operations which qualify for General Permit 600, and which can process no more than 5 cubic yards of material per day.

(2) **Application Processing Fee.** An application processing fee shall be submitted with each application. The amount of the fee shall depend on the type of facility and the required action as follows:

(a) New Applications:

(A)	Major industries[1]	$20,000
(B)	Minor industries	$ 4,000
(C)	Major domestic[2]	$ 1,500
(D)	Minor domestic	$ 600
(E)	Agricultural	$ 4,000

(b) Permit Renewals (including request for effluent limit modification):

(A)	Major industries[1]	$10,000
(B)	Minor industries	$ 2,000
(C)	Major domestic[2]	$ 750
(D)	Minor domestic	$ 300
(E)	Agricultural	$ 2,000

(c) Permit Renewals (without request for effluent limit modification):

(A)	Major industries[1]	$ 5,000
(B)	Minor industries	$ 750
(C)	Major domestic[2]	$ 500
(D)	Minor domestic	$ 200

Koppers018700

(E) Agricultural . . . . . $ 750

(d) Permit Modifications (involving increase in effluent limitations):

(A) Major industries[1] $10,000
(B) Minor industries . . . . . $ 2,000
(C) Major domestic[2] . . . . . $ 750
(D) Minor domestic . . . . . $ 300
(E) Agricultural . . . . . $ 2,000

(e) Permit Modifications (not involving an increase in effluent limits): All categories . . . . . $ 500

(f) Special Permits issued pursuant to OAR 340-14-050 . . . . . $ 250

(g) New General Permits, by permit number:

(A) 100, 400, 500, 600 (over 1500 cubic yards per year), 900, 1000 . . . . . $ 50

(B) 200, 300, 1300, 1400, 1500, 1600. . . . . $ 100

(C) 1200 . . . . . $ 150

(3) Annual Compliance Determination Fee Schedule:

(a) Domestic Waste Sources -- Initial and Annual Fee is based on Dry Weather Design Flow, Type of Facility and Applicable Special Fees as follows:

		Fees
(A_1)	Sewage Disposal - 50 MGD or more	$20,860
(A_2)	Sewage Disposal - At least 25 MGD but less than 50 MGD	$14,110
(A_3)	Sewage Disposal - At least 10 MGD but less than 50 MGD	$ 6,610
(B_a)	Sewage Disposal - At least 5 MGD but less than 10 MGD	$ 5,010
(B_b)	Sewage Disposal - At least 5 MGD but less than 10 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	$ 5,010
(C_{1a})	Sewage Disposal - At least 2 MGD but less than 5 MGD	$ 3,285
(A_1)	Sewage Disposal - 50 MGD or more	$20,860
(C_{1b})	Sewage Disposal - At least 2 MGD but less than 5 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	$ 935

Koppers018701

		Fees
(C_{2a})	Sewage Disposal - At least 1 MGD but less than 2 MGD	$ 2,210
(C_{2b})	Sewage Disposal - At least 1 MGD but less than 2 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	$ 845
(D_a)	Sewage Disposal - Less than 1 MGD, and not otherwise categorized under Categories E, F, or G	$ 755
(D_b)	Sewage Disposal - Less than 1 MGD - Systems where treatment occurs in lagoons that discharge to surface waters which are not otherwise categorized under Categories E, F, or G	$ 450
(E)	Sewage Disposal - Systems where treatment is limited to lagoons which do not discharge to surface waters	$ 250
(F)	Sewage Disposal - Systems larger than 20,000 gallons per day which dispose of treated effluent via subsurface means only	$ 260
(G)	Sewage Disposal - Systems less than 20,000 gallons per day which dispose of treated effluent via subsurface means only and other systems required by OAR 340, Division 71 to have a Water Pollution Control Facilities (WPCF) permit	$ 185
(H_1)	Sources determined by the Department to administer a pretreatment program pursuant to federal pretreatment program regulations (40 CFR, Part 403; January 28, 1981) shall pay an additional $1,000 per year plus $335 for each significant industrial user specified in their annual report for the previous year.	
(H_2)	In addition to applicable fees specified above, special Annual Compliance Fees for Tualatin Basin Pollution Abatement Activities will be applied to the following permittees until Fiscal Year 1998:	
	Unified Sewerage Agency - Durham	$26,720
	Unified Sewerage Agency - Rock Creek	$22,995
	Unified Sewerage Agency - Forest Grove	$ 5,450
	Unified Sewerage Agency - Hillsboro	$ 4,240
	Unified Sewerage Agency - Banks	$ 185
	City of Portland - Tryon Creek	$ 910

(b) Industrial, Commercial and Agricultural Sources (Source and Initial and Annual Fee):

(For multiple sources on one application select only the one with highest fee)

(A)	Major pulp, paper, paperboard, hardboard, and other fiber pulping industry	$ 6,000

Koppers018702

(B)	Major sugar beet processing, potato and other vegetable processing, and fruit processing industry	$ 6,000
(C)	Seafood Processing Industry:	
	(i) Bottom fish, crab, and/or oyster processing	$ 675
	(ii) Shrimp processing	$ 675
	(iii) Salmon and/or tuna processing	$ 1,200
(D)	Electroplating industry (excludes facilities which do anodizing only):	
	(i) Rectifier output capacity of 15,000 Amps or more	$ 6,000
	(ii) Rectifier output capacity of less than 15,000 Amps but more than 5000 Amps	$ 3,000
(E)	Primary Aluminum Smelting	$ 6,000
(F)	Primary smelting and/or refining of non-ferrous metals utilizing sand chlorination separation facilities	$ 6,000
(G)	Primary smelting and/or refining of ferrous and non-ferrous metals not elsewhere classified above	$ 3,000
(H)	Alkalies, chlorine, pesticide, or fertilizer manufacturing with discharge of process waste waters	$ 6,000
(I)	Petroleum refineries with a capacity in excess of 15,000 barrels per day discharging process waste water	$ 6,000
(J)	Cooling water discharges in excess of 20,000 BTU/sec	$ 3,000
(K)	Milk products processing industry which processes in excess of 250,000 pounds of milk per day	$ 6,000
(L)	Major mining operations (over 500,000 cubic yards per year)	$ 6,000
(M)	Minor mining and/or processing operations:	

Koppers018703

	(i) Medium (100,000 to 500,000 cubic yards per year) mechanical processing	$ 2,000
	(ii) Medium using froth flotation	$ 3,000
	(iii) Medium using chemical leaching	$ 4,000
	(iv) Small (less than 100,000 cubic yards per year) mechanical processing	$ 500
	(v) Small using froth flotation	$ 1,000
	(vi) Small using chemical leaching	$ 2,000
(N)	All facilities not elsewhere classified with disposal of process waste water	$ 1,200
(O)	All facilities not elsewhere classified which dispose of non-process waste waters (i.e., small cooling water discharges, boiler blowdown, filter backwash, log ponds, etc,)	$ 750
(P)	Dairies and other confined feeding operations on individual permits	$ 450
(Q)	All facilities which dispose of waste waters only by evaporation from watertight ponds or basins	$ 450
(R)	General permits 100-J, 200-J, 400-J, 500-J, 1000	$ 100
(S)	General permit 300-J	$ 100
(T)	General permits 900-J, 1200-J, 1300-J, 1400, 1500-J, 1600	$ 100

---

1 *Major Industries Qualifying Factors:*

-1- Discharges large BOD loads; or
-2- Is a large metals facility; or
-3- Has significant toxic discharges; or
-4- Has a treatment system which, if not operated properly, will have a significant adverse impact on the receiving stream; or
-5- Any other industry which the Department determines needs special regulatory control.

2 *Major Domestic Qualifying Factors:*

-1- Serving more than 10,000 people; or

-2- Serving industries which can have a significant impact on the treatment system.

RETURN APPLICATION TO:
DEPARTMENT OF ENVIRONMENTAL QUALITY BUSINESS OFFICE 811 S.W. Sixth Avenue Portland, OR 97204 (503) 229-5309

APPLICATION
FOR RENEWAL OF
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES-R)
STATE OF OREGON

DEQ USE ONLY
Appl. No.:
File No.: 47430
Received:
WQ EPA No.: OR-

A. REFERENCE INFORMATION

Official Name of Applicant (Owner)

Facility Name

Address

City | State | Zip

Responsible Official

Title

Address or Location | Phone

Present Permit No.: _____

Date Expires: _____

Enter Site Location by Latitude and Longitude:

LATITUDE			LONGITUDE		
1. Deg.	2. Min.	3. Sec.	1. Deg.	2. Min.	3. Sec.

Alternate Responsible Official or Chief Operator

Title

Address or Location | Phone

Description of activities requiring a permit from the Department: (Check all that apply.)

_____ Construct, install or modify waste collection, treatment, or disposal facilities:

_____ Operate waste collection, treatment, or disposal facilities.

_____ Discharge treated wastewaters into the waters of _____.

_____ (Other) _____.

B. GENERAL QUESTIONS

1. Have the treatment or disposal methods employed, as indicated in previous applications, been altered in any way since the last application was submitted? ☐ Yes ☐ No (If yes, explain.)

2. Has the quantity or quality of wastes discharged, as indicated in previous applications, been significantly changed in any way since the last application was submitted? ☐ Yes ☐ No (If yes, explain.)

C. SPECIAL QUESTIONS AND REQUESTED INFORMATION

1. If any changes in operations or waste quantity or quality are anticipated in the near future, please attach an explanation or proposal.
2. Please attach a brief report which indicates your progress in meeting the requirements and limitations of your present permit.

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Signature of Owner (Or Legally Authorized Representative) | Title | Date

Koppers018705

INSTRUCTION - PERMIT RENEWAL APPLICATION

A. Reference Information: Complete the required information in detail. If there has been a name change, address change or change in personnel since the last application, please make a special note to that effect.

B. General Questions: If more space is needed than provided on the application form, please attached as many additional pages as necessary in order to supply whatever explanation or diagrams are needed to update the treatment and disposal methods used and the characteristics of the waste discharged or otherwise disposed.

C. Special Questions and Requested Information:

1. Please elaborate on any proposed expansions, cutbacks, improvements or changes of any kind which will or may affect the quantity or quality of pollutants discharged.

2. Each condition of your present permit should be reviewed and an assessment made as to the success you have had in meeting the requirements and limitations.

Signature on Application

The person who signs the application form will often be the applicant himself; when another person signs on behalf of the applicant, his title or relationship to the applicant should be shown in the space provided. In all cases, the persons signing the form should be authorized to do so by the applicant. An application submitted by a corporation must be signed by a principal executive officer of at least the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge(s) described in the form originate. In the case of a partnership or a sole proprietorship, the application must be signed by a general partner or the proprietor, respectively. In the case of a municipal, State, Federal or other public facility, the application must be signed by either a principal executive officer, ranking elected official or other duly authorized employee.

Other Instructions

Submit this application as soon as possible. It should be submitted at <u>least 130 days prior</u> to the expiration of your present permit.

All NPDES Permit Applications are to be submitted to:

Department of Environmental quality
Business Office
811 S.W. Sixth Avenue
Portland, OR 97204

IW\WC7604

RETURN APPLICATION TO:
DEPARTMENT OF ENVIRONMENTAL QUALITY
BUSINESS OFFICE
811 S.W. Sixth Avenue
Portland, OR 97204
(503) 229-5309

APPLICATION
FOR RENEWAL OF
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES-R)
STATE OF OREGON

DEQ USE ONLY
Appl. No.: _____
File No.: 47430
Received: _____
WQ EPA No.: OR- _____

A. REFERENCE INFORMATION

_____
Official Name of Applicant (Owner)

_____
Facility Name

_____
Address

_____ _____ _____
City State Zip

_____
Responsible Official

_____
Title

_____ _____
Address or Location Phone

Present Permit No.: _____

Date Expires: _____

Enter Site Location by Latitude and Longitude:

LATITUDE			LONGITUDE		
1. Deg.	2. Min.	3. Sec.	1. Deg.	2. Min.	3. Sec.

_____
Alternate Responsible Official or Chief Operator

_____
Title

_____ _____
Address or Location Phone

Description of activities requiring a permit from the Department: (Check all that apply.)

_____ Construct, install or modify waste collection, treatment, or disposal facilities:

_____ Operate waste collection, treatment, or disposal facilities.

_____ Discharge treated wastewaters into the waters of _____.

_____ (Other) _____.

B. GENERAL QUESTIONS

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2. Please attach a brief report which indicates your progress in meeting the requirements and limitations of your present permit.

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

_____ _____ _____
Signature of Owner (Or Legally Authorized Representative) Title Date

Koppers018707

INSTRUCTION - PERMIT RENEWAL APPLICATION

A. Reference Information: Complete the required information in detail. If there has been a name change, address change or change in personnel since the last application, please make a special note to that effect.

B. General Questions: If more space is needed than provided on the application form, please attached as many additional pages as necessary in order to supply whatever explanation or diagrams are needed to update the treatment and disposal methods used and the characteristics of the waste discharged or otherwise disposed.

C. Special Questions and Requested Information:

1. Please elaborate on any proposed expansions, cutbacks, improvements or changes of any kind which will or may affect the quantity or quality of pollutants discharged.

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Department of Environmental quality
Business Office
811 S.W. Sixth Avenue
Portland, OR 97204

IW\WC7604

Koppers018708

RETURN APPLICATION TO:

DEPARTMENT OF ENVIRONMENTAL QUALITY
BUSINESS OFFICE
811 S.W. Sixth Avenue
Portland, OR 97204
(503) 229-5309

APPLICATION
FOR RENEWAL OF
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES-R)
STATE OF OREGON

DEQ USE ONLY

Appl. No.: _____
File No.: 47430
Received: _____
WQ EPA No.: OR- _____

A. REFERENCE INFORMATION

_____
Official Name of Applicant (Owner)

_____
Facility Name

_____
Address

_____ _____ _____
City State Zip

_____
Responsible Official

_____
Title

_____ _____
Address or Location Phone

Present Permit No.: _____

Date Expires: _____

Enter Site Location by Latitude and Longitude:

LATITUDE			LONGITUDE		
1. Deg.	2. Min.	3. Sec.	1. Deg.	2. Min.	3. Sec.

_____
Alternate Responsible Official or Chief Operator

_____
Title

_____ _____
Address or Location Phone

Description of activities requiring a permit from the Department: (Check all that apply.)

_____ Construct, install or modify waste collection, treatment, or disposal facilities:

_____ Operate waste collection, treatment, or disposal facilities.

_____ Discharge treated wastewaters into the waters of _____.

_____ (Other) _____.

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1. If any changes in operations or waste quantity or quality are anticipated in the near future, please attach an explanation or proposal.
2. Please attach a brief report which indicates your progress in meeting the requirements and limitations of your present permit.

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

_____ _____ _____
Signature of Owner (Or Legally Authorized Representative) Title Date

Koppers018709

INSTRUCTION - PERMIT RENEWAL APPLICATION

A. Reference Information: Complete the required information in detail. If there has been a name change, address change or change in personnel since the last application, please make a special note to that effect.

B. General Questions: If more space is needed than provided on the application form, please attached as many additional pages as necessary in order to supply whatever explanation or diagrams are needed to update the treatment and disposal methods used and the characteristics of the waste discharged or otherwise disposed.

C. Special Questions and Requested Information:

1. Please elaborate on any proposed expansions, cutbacks, improvements or changes of any kind which will or may affect the quantity or quality of pollutants discharged.

2. Each condition of your present permit should be reviewed and an assessment made as to the success you have had in meeting the requirements and limitations.

Signature on Application

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Other Instructions

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All NPDES Permit Applications are to be submitted to:

Department of Environmental quality
Business Office
811 S.W. Sixth Avenue
Portland, OR 97204

IW\WC7604

Koppers018710

KOPPERS
7640 N.W. St. Helens Rd.
Portland, Oregon 97210
(503) 286-3681

4-22-92

Bill Swearingen,

Kent ashbaker of Oregon D.E.Q says it is our call, but he feels since all waters drain to our collection sump, this might be the Place to collect from. Dick Reed of Coffey Lake. is sending me today special bottles for the P.A.H's He can run samples and Produce results by May 1. I await your instructions

John JOHN A. OXFORD

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. Saint Helens Road
Portland, OR 97210-3663

Telephone: (503) 286-3681
FAX: (503) 285-2831

March 2, 1992

Mr. Charles K. Ashbaker, Manager
Water Quality, Northwest Region
811 S.W. Sixth Avenue
Portland, Oregon 97204-1390

Dear Mr. Ashbaker:

Confirming our telephone conversation of February 13, 1992, we are proceeding with plans to fill a tank with city water to test the integrity of the welds. The water will be tested and drained from the tank according to your instructions. We plan to proceed as follows:

> Upon completion of the testing period but before draining the water, the chlorine in the water will be deactivated by aeration and without the use of chemicals.
>
> The water in the tank will be tested and held there until the analytical results have been reviewed. If a residual chlorine test indicates a non-detectable limit and all other parameters are below our NPDES limitations, the water will be discharged via the registered outfall. As usual we will utilize Coffey Laboratories to conduct the normal NPDES tests as well as a residual chlorine test.

Your comments and advice on this matter was most appreciated. If you have any questions concerning our plans, please call or write me at the above address and number.

With best regards,

John A. Oxford,
Plant Manager

3/2/92

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 1
To W. Swearingen	From J. Oxford
Co. K-1800	Co. Portland
Dept.	Phone #
Fax #	Fax #

CC: L. F. Flaherty, K-1750
W. E. Swearingen, K-1800

February 28, 1992

Mr. Charles K. Ashbaker, Manager
Water Quality, Northwest Region
811 S.W. Sixth Avenue
Portland, Or. 97204-1390

Dear Sir:

This letter is in response to our telephone conversation of February 13, 1992, regarding our expansion here at our plant. In that conversation I told you that we wished to proof the welds that were made in our one million gallon tank, and that we were intending to use water to provide this proof. It is our intention to then pump this water through our outfall into the creek along St. Helens Road that empties into the Williamette River. As with all of our storm water discharge under our N.P. D. E. S. permit we will sample the water to be sure that we comply within the parameters of the permit. In addition to this we will address your concerns that the water being city water would contain chlorine residue. Our tank has an air agitation and a pump circulation system that we will use to remove the chlorine through our power ventilation scrubber. In short we will not use chemicals to remove the chlorine from the water. When our samples show zero readings, we will confirm this by having Coffey Laboratories analyze the water before discharging through our outfall.

I thank you for taking the time to advise and comment on our plans and if I can be of any further help on this matter please feel free to call.

Regards,

2/28/92.

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To Bill Swearingen	From John Oxford
Co. Koppers	Co. Portland
Dept.	Phone #
Fax #	Fax #

John A. Oxford
Plant Manager

CC: W. Swearingen, Environmental Manager,
Koppers Industries Inc., Pittsburgh Pa.
Plant File

CITY OF
PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES

Earl Blumenauer, Commissioner
John Lang, Administrator
1120 S.W. 5th, Rm. 400
Portland, Oregon 97204-1972
(503) 796-7740
FAX: (503) 796-6995

Bill, For your info

August 29, 1990

Mr. John Oxford
Koppers Industries
7540 NW St. Hellens Rd.
Portland, Or. 97210

Dear Mr. Oxford:

I would like to extend my thanks for your cooperation during my visit to your business on August 24, 1990. During the inspection your facility appeared very clean and organized, I did not noticed any industrial waste being discharged into the City sewer system. I am enclosing a Facility Inspection Follow-up in which indicates the status of your company with The Industrial Wastewater Section. If you have any further questions please call me at; 796-7568

Sincerely,

Miguel A. Santana
Industrial Wastewater Technician

cc Harry Edmonds
Tom Bottenberg
file

Enclosure

RECEIVED
AUG 31 1990
KOPPERS INDS., INC.
PORTLAND, OR

Engineering
Bill Gaffi
796-7181

Business Operations
Bob Rieck
796-7133

Wastewater Treatment
Ross Peterson
285-0205

Customer/Employee Affairs
Karen Kramer
796-7062

August 29, 1990

Mr. John Oxford
Koppers Industries
7540 NW St. Hellens Rd.
Portland, Or. 97210

Dear Mr. Oxford:

The City of Portland, Industrial Waste section has recently completed an inspection of your facility. After review of your completed survey and site inspection report your industrial classification is listed below:

FACILITY:	WASTE DISCHARGE:
[ ] Categorical Industrial User (CIU)	[X] Sanitary Only
[ ] Significant Industrial User (SIU)	[ ] Sanitary & Process
[XX] General Industrial User	[ ] Sanitary & Pretreated Process
[ ] Other (see any attached sheet)	[ ] Other (see any attached sheet)

INDUSTRIAL WASTE DISCHARGE PERMIT:

[ ] Required [X] Not Required

Thank you for your cooperation with the City of Portland in the implementation of our Industrial Pretreatment Program. If you have any questions about the City's Industrial Monitoring Program please call me at: 796-7568.

Sincerely,

Miguel A. Santana
Industrial Wastewater Technician

cc. HGE
TEB
file

Bill, for your info
John

CC:

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

1120 S.W. 5th Avenue
Room 400
Portland, Oregon
97204-1972
(503) 796-7740

August 24, 1990

Koppers Company, Inc.
7540 NW St. Helens Road
Portland, OR 97201

Gentlemen:

Pursuant to the EPA General Pretreatment Regulations (40CFR403) the City of Portland is required to regulate all industrial wastewater discharged to the publicly owned treatment works (POTW). In order to identify industrial users subject to this regulation, Portland periodically inspects firms located within its sewer service boundary. Significant industrial users (SIU's) who discharge to the municipal sewer are required to obtain industrial wastewater discharge permits in accordance with Section 17.34.070 of the Code of the City of Portland.

Our recent inspection of your facility verified that you do not discharge industrial wastewater to the POTW. This determination allows us to exempt you from the above-referenced permitting requirement. This exemption is subject to the following conditions: (1) no industrial effluent (process wastewater) shall be discharged to the POTW from this facility without first obtaining an industrial wastewater discharge permit from the City, (2) any planned expansions or process changes that could significantly effect the quantity or characteristics of residuals generated at this facility must be reported to this office at least 30 days in advance of the planned implementation, and (3) this exemption may be rescinded or modified upon written notification in response to changes in applicable local, state, or federal regulations.

Please feel free to contact this office at (503) 796-7208 if you have any questions regarding this matter.

Sincerely,

Harry G. Edmonds

Harry G. Edmonds, P.E.
Industrial Wastewater Management

HGE:
cc: Tom Bottenberg

100% RECYCLED PAPER

Portland – Industrial Wastewater
Inspection Summary Inspection, 12/20/93

Koppers018717

INDUSTRIAL WASTEWATER INSPECTION SUMMARY

cc: B. Swearingen
OK to file F.Y.I.
Amos 12/20

Company: Koppers

The City of Portland Industrial Waste Management Section has completed an inspection of your facility on [12/20/93]. After review of your completed forms and site inspection report, your status is as follows:

USER TYPE:

OK yet
- [x] Categorical Industrial User (CIU) Non-discharger
- [ ] Significant Industrial User (SIU)
- [ ] Nonsignificant Industrial User (NIU)
- [ ] Nonapplicable Industrial User (NAU)

INSPECTION RESULT:

OK —
- [x] No follow-up activities required at this time
- [ ] Follow-up activities are required to satisfy the pretreatment standards
- [ ] Description of deficiencies include, but are not limited to:

List of Deficiencies

_____

_____

_____

_____

_____

- [ ] Respond within 10 days of this inspection
- [ ] A letter of violation (LOV) to follow from the City
- [ ] Instructions

_____

_____

_____

Jim McCadden
Print Name of Permit Manager/Inspector

Jim McCadden
Signature (Permit Manager)

12/20/93
Date

T J Traynor
Print Name of Industry Contact

T J Traynor
Signature (Industry Contact)

White - City
Yellow - Industry
Pink - File

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
1120 S.W. 5th Ave., Room 400, Portland, OR 97204-1972

Jim McCadden
Permit Manager
Phone: (503) 823-7126
Fax: (503) 823-5228

Printed on Recycled Paper

Portland – Industrial Wastewater
Inspection Summary Inspection, 5/15/94

Koppers018719

INDUSTRIAL WASTEWATER INSPECTION SUMMARY

FAX; B. Swearingen
F.Y.I.
Amos

Company: Koppers Industries

The City of Portland Industrial Waste Management Section has completed an inspection of your facility on [5/15/97]. After review of your completed forms and site inspection report, your status is as follows:

USER TYPE:

[X] Categorical Industrial User (CIU)
[_] Significant Industrial User (SIU)
[_] Nonsignificant Industrial User (NIU)
[_] Nonapplicable Industrial User (NAU)

INSPECTION RESULT:

[_] No follow-up activities required at this time
[_] Follow-up activities are required to satisfy the pretreatment standards
[_] Description of deficiencies include, but are not limited to:

List of ~~Deficiencies~~ None

[_] Respond within 10 days of this inspection
[_] A letter of violation (LOV) to follow from the City
[_] Instructions

No instructions - Wastewater issued is compliance

Stephen Rosenberger Jon Holtrop
Print Name of Permit Manager/Inspector

Signature (Permit Manager) — Date: 5/15/97

A.S. Kamerad
Print Name of Industry Contact

Signature (Industry Contact) — Date: 5/15/97

White - City
Yellow - Industry

Form 14-23
Rev 8/90

Portland – Industrial Wastewater
Inspection Summary Inspection, 10/3/94

Koppers018721

INDUSTRIAL WASTEWATER INSPECTION SUMMARY

Company: Koppers, Inc

The City of Portland Industrial Waste Management Section has completed an inspection of your facility on [10/3/94]. After review of your completed forms and site inspection report, your status is as follows:

USER TYPE:

[X] Categorical Industrial User (CIU) 314 Permit number for plant discharge to Portland
[_] Significant Industrial User (SIU)
[_] Nonsignificant Industrial User (NIU)
[_] Nonapplicable Industrial User (NAU)

INSPECTION RESULT:

[X] No follow-up activities required at this time
[_] Follow-up activities are required to satisfy the pretreatment standards
[_] Description of deficiencies include, but are not limited to:

List of Deficiencies
NONE

[_] Respond within 10 days of this inspection
[_] A letter of violation (LOV) to follow from the City
[X] Instructions
Complete Spill plan by 12/31/94

C.K. Anderson / A.F. O'Rorke
Print Name of Permit Manager/Inspector

Christina Anderson
Signature (Permit Manager)

10/3/94
Date

T.J. Turner
Print Name of Industry Contact

Signature (Industry Contact)

10-3-94
Date

White - City
Yellow - Industry
Pink - File

Form 14-23
Rev 8/90

KOPPERS INDUSTRIES

FAX TRANSMITTAL

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663
Telephone: 503-286-3681
Fax: 503-285-2831

TO: Bill Swearingen DATE: 6/4/96

FROM: Amos TOTAL # OF PAGES: 3

The city storm water people came in on 5/21/96 for their Annual visit, a copy of the summary Report is Attached for your files. A question came up About the lack of containment around the 3-55 gal. drums of diesel and 1-55 gal. drum of Recycled oil in our covered outside storage shed. I explained that the quantities involved didn't Require containment. He said that that maybe correct, And

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

6/6/96

Note: Discussed with Steve Smith about need for containment. Don't need it below 600? gallons.

Called Amos and told him that no containment is necessary and that even if drums spilled we would capture at the API.

Also this was a City of Portland inspection and no oil would get into city sewers.

He agreed.

002
KOPPERS PORTLAND
06/04/96 16:30
Koppers018724

KOPPERS
7540 N.W. St. Helens Rd.
Portland, Oregon 97210
(503) 286-3681

6/4/96

Re: Storm water people

Page #2

that he would pursue what was correct, but that they had the feeling that with such matters that "it was better to be safe, than sorry."

Should I do nothing til I hear from him or should I be safe?

I'm out 6/5 — in 6/6 + 6/7.

Amos

AMOS S. KAMERER

INDUSTRIAL WASTEWATER INSPECTION SUMMARY

Company: Koppers

The City of Portland Industrial Waste Management Section has completed an inspection of your facility on [5/21/96]. After review of your completed forms and site inspection report, your status is as follows:

USER TYPE:

[X] Categorical Industrial User (CIU)
[_] Significant Industrial User (SIU)
[_] Nonsignificant Industrial User (NIU)
[_] Nonapplicable Industrial User (NAU)

INSPECTION RESULT:

[X] No follow-up activities required at this time
[_] Follow-up activities are required to satisfy the pretreatment standards
[_] Description of deficiencies include, but are not limited to:

~~List of Deficiencies~~ None
No Discharge of Process Waste Water

[_] Respond within 10 days of this inspection
[_] A letter of violation (LOV) to follow from the City
[X] Instructions
1) Add Duty Officer Phone # to Spill Response Plan - 823-7180
2) Add Language to ASPP reflecting Notification of City if spill material will reach city Storm/Sanitary Sewer.

Stephen Rosenberger
Print Name of Permit Manager/Inspector

Signature (Permit Manager) — Date: 5-21-96

Amos Kameier
Print Name of Industry Contact

Signature (Industry Contact) — Date: 5/21/96

Do in 30 days

White - City
Yellow - Industry
Pink - File

Form 14-23
Rev 8/90

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
1120 S.W. Fifth Ave., Room 400, Portland, Oregon 97204-1972
(503) 823-7740, FAX (503) 823-6995

NO DISCHARGE CERTIFICATION REPORT

Industrial Users subject to limits for processes regulated under categorical pretreatment standards (40 CFR 433) that elect not to discharge to the City of Portland's sanitary sewer must submit a periodic "No Discharge Certification Report" to comply with national pretreatment regulations, the City of Portland's Chapter 17.34, Administrative Rules, and Permit.

Report due **January 15, 1995** to:
Source Control
Bureau of Environmental Svc.
1120 S.W. 5th, Room 400
Portland, OR 97204-1972

Facility Name: **Koppers Industries, Inc.**

Address: **7540 NW St. Helens Rd.**
Portland, OR 97210

Reporting Period: October 1, 1994 to December 31, 1994

CHECK BOX IF NO DISCHARGES OF REGULATED PROCESS WASTEWATERS HAVE OCCURRED:

☒ Based on my inquiry of the person or persons directly responsible for environmental compliance, I certify that, to the best of my knowledge and belief, no discharges of any regulated wastewaters occurred since filing of the last report.

I have personally examined and am familiar with the information submitted in this report and any attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information reported herein, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature: _____ Date: 1/3/95

Title: A.S. Fameree, Plant Manager

S:\IU-K\KOPPERS\PERMIT\94PERMIT.DFT 26

cc: W.E. Swearingen, KII

Koppers018726

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

1120 S.W. Fifth Ave., Room 400, Portland, Oregon 97204-1972
(503) 823-7740, FAX (503) 823-6995

MUNICIPAL PRETREATMENT PROGRAM

INDUSTRIAL USER

COMPANY OFFICIAL SIGNATORY AUTHORIZATION

The undersigned person has been designated by KOPPERS INDUSTRIES, INC., as the duly authorized representative with the assigned responsibility for environmental matters and compliance with the firm's City of Portland Waste Discharge Permit (#314-001) and the Code of the City of Portland.

This authorization is made pursuant to 40 CFR 403.12(l)(1-3).

RESPONSIBLE CORPORATE OFFICIAL: AMOS S. KAMERER, PLANT MANAGER
(PLEASE PRINT- NAME/TITLE)

SIGNATURE: _____ 11/1/94
(DATE)

40 CFR 403.12(l)(4)

If an authorization under paragraph (1)(3) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirement of paragraph (1)(3) of this section must be submitted to the Control Authority prior to or together with any reports to be signed by an authorized representative.

S:\IU-K\KOPPERS\PERMIT\FORMS\94-SIG.ATH

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
1211 ~~1120~~ S.W. Fifth Ave., Suite 800 ~~Room 400,~~ Portland, Oregon 97204-1972
(503) 823-7740, FAX (503) 823-6995

NO DISCHARGE CERTIFICATION REPORT

Industrial Users subject to limits for processes regulated under categorical pretreatment standards (40 CFR 433) that elect not to discharge to the City of Portland's sanitary sewer must submit a periodic "No Discharge Certification Report" to comply with national pretreatment regulations, the City of Portland's Chapter 17.34, Administrative Rules, and Permit.

Report due **January 15, 1996** to:
Source Control
Bureau of Environmental Svc.
1120 S.W. 5th, Room 400
Portland, OR 97204-1972

Facility Name: **Koppers Industries, Inc.**

Address: **7540 NW St. Helens Rd.**
Portland, OR 97210

Reporting Period: **July 1, 1995** to **December 31, 1995**

CHECK BOX IF NO DISCHARGES OF REGULATED PROCESS WASTEWATERS HAVE OCCURRED:

[X] Based on my inquiry of the person or persons directly responsible for environmental compliance, I certify that, to the best of my knowledge and belief, no discharges of any regulated wastewaters occurred since filing of the last report.

I have personally examined and am familiar with the information submitted in this report and any attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information reported herein, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature: [signature] Date: 1/2/96

Title: A. S. Kameker, Plant Manager

CC: W.E. Swearingen

S:\IU-K\KOPPERS\PERMIT\94PERMIT.DFT

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CITY OF PORTLAND
ENVIRONMENTAL SERVICES

1120 S.W. Fifth Ave., Room 400, Portland, Oregon 97204-1972
(503) 823-7740, FAX (503) 823-6995

NO DISCHARGE CERTIFICATION REPORT

Industrial Users subject to limits for processes regulated under categorical pretreatment standards (40 CFR 433) that elect not to discharge to the City of Portland's sanitary sewer must submit a periodic "No Discharge Certification Report" to comply with national pretreatment regulations, the City of Portland's Chapter 17.34, Administrative Rules, and Permit.

Report due **July 15, 1995** to:

Source Control
Bureau of Environmental Svc.
1120 S.W. 5th, Room 400
Portland, OR 97204-1972

Facility Name: **Koppers Industries, Inc.**

Address: **7540 NW St. Helens Rd.**
Portland, OR 97210

Reporting Period: **January 1, 1995** to **June 30, 1995**

CHECK BOX IF NO DISCHARGES OF REGULATED PROCESS WASTEWATERS HAVE OCCURRED:

[ ] Based on my inquiry of the person or persons directly responsible for environmental compliance, I certify that, to the best of my knowledge and belief, no discharges of any regulated wastewaters occurred since filing of the last report.

I have personally examined and am familiar with the information submitted in this report and any attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information reported herein, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature: _____ Date: 7/10/95

Title: A.S Kamerer, Plant Manager

S:\IU-K\KOPPERS\PERMIT\96PERMIT.DFT

cc: W.E. Swearingin

An Equal Opportunity Employer Printed on Recycled Paper TDD 823-3520

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

~~1120~~ 1211 S.W. Fifth Ave., Room ~~400~~ 800, Portland, Oregon 97204-~~1972~~ 3713
(503) 823-7740, FAX (503) 823-6995

NO DISCHARGE CERTIFICATION REPORT

Industrial Users subject to limits for processes regulated under categorical pretreatment standards (40 CFR 433) that elect not to discharge to the City of Portland's sanitary sewer must submit a periodic "No Discharge Certification Report" to comply with national pretreatment regulations, the City of Portland's Chapter 17.34, Administrative Rules, and Permit.

Report due **January 15, 1997** to:
Source Control
Bureau of Environmental Svc.
1120 S.W. 5th, Room 400
Portland, OR 97204-1972

Facility Name: **Koppers Industries, Inc.**

Address: **7540 NW St. Helens Rd.**
Portland, OR 97210

Reporting Period: **July 1, 1996** to **December 31, 1996**

CHECK BOX IF NO DISCHARGES OF REGULATED PROCESS WASTEWATERS HAVE OCCURRED:

[X] Based on my inquiry of the person or persons directly responsible for environmental compliance, I certify that, to the best of my knowledge and belief, no discharges of any regulated wastewaters occurred since filing of the last report.

I have personally examined and am familiar with the information submitted in this report and any attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information reported herein, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature: [signature] Date: 1/3/97

Title: Plant manager

cc: W.E. Swearingen

S:\IU-K\KOPPERS\PERMIT\94PERMIT.DFT

An Equal Opportunity Employer Printed on Recycled Paper TDD 823-3520

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
~~1120~~ 1211 S.W. Fifth Ave., ~~Room 400~~ Suite 800, Portland, Oregon 97204-1972
(503) 823-7740, FAX (503) 823-6995

NO DISCHARGE CERTIFICATION REPORT

Industrial Users subject to limits for processes regulated under categorical pretreatment standards (40 CFR 433) that elect not to discharge to the City of Portland's sanitary sewer must submit a periodic "No Discharge Certification Report" to comply with national pretreatment regulations, the City of Portland's Chapter 17.34, Administrative Rules, and Permit.

Report due **July 15, 1996** to:

Source Control
Bureau of Environmental Svc.
1211 [redacted] S.W. 5th, Room [redacted] 800
Portland, OR 97204-[redacted] 3713

Facility Name: **Koppers Industries, Inc.**

Address: **7540 NW St. Helens Rd.**
Portland, OR 97210

Reporting Period: **January 1, 1996** to **June 30, 1996**

CHECK BOX IF NO DISCHARGES OF REGULATED PROCESS WASTEWATERS HAVE OCCURRED:

☒ Based on my inquiry of the person or persons directly responsible for environmental compliance, I certify that, to the best of my knowledge and belief, no discharges of any regulated wastewaters occurred since filing of the last report.

I have personally examined and am familiar with the information submitted in this report and any attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information reported herein, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature: _____ Date: 7/18/96

Title: A.S. KAMEREK, Plant Manager

cc: W.E. SWEARINGEN

An Equal Opportunity Employer Printed on Recycled Paper TDD 823-3520

Koppers018731

Bill, This was sent before the March 1 deadline. It is on the Waste minimization we spoke of.

John

Oregon DEQ
Hazardous & Solid Waste Division
Attn: Hazardous Waste Forms Clerk
811 SW Sixth Avenue
Portland, Oregon 97204

Place Stamp Here

Koppers018732

This site is exempt from the requirement to file 1991 Hazardous Waste Reporting Forms because:

1. The facility is **not** an RCRA Small or Large Quantity Hazardous Waste Generator. The facility (check one):
   - ☒ Generates **no** hazardous waste
   - ☐ Is a Conditionally Exempt Small Quantity Generator (CEG)
   - ☐ Other (please explain):_____

   and,
2. This facility is **not** a hazardous waste Treatment, Storage and Disposal facility (TSD), and
3. This facility is **not** a designated hazardous waste recycling facility

It is expected that this site will remain exempt from the requirement to file Hazardous Waste Reporting Forms (check one):

- ☐ For 1991 only
- ☒ Permanently
- ☐ Other (please specify):_____

RCRA EPA/DEQ ID Number (if available): ORD 0277343

Facility Name: KOPPERS INDUSTRIES INC

Facility Location Address: 7540 NW ST HELENS RD PORTLAND OR 97210

Contact Name: JOHN A OXFORD

Phone Number of Contact: (503) 286-3681

Koppers018733

RECEIVED
MAR 2 1992

KOPPERS INDUSTRIES

Koppers Industries, Inc.
7540 N.W. Saint Helens Road
Portland, OR 97210-3663

Telephone: (503) 286-3681
FAX: (503) 285-2831

October 17, 1991

Oregon D.E.Q.
Attn: Ms. Susan Eidman
811 S. W. 6th Ave.
Portland, Oregon
97204-1390

Dear Ms. Eidman:

This letter is in response to our telephone conversation of October 17, 1991, in which I referred to our telephone conversation of July 15, 1991. As I told you at that time, Koppers Industries Inc., Portland, Oregon facility should be exempt from reporting under the Toxic Use Reduction & Hazardous Waste Reduction Act of 1989. Koppers is not a large quantity generator of waste, nor are we a large user of Toxics. Our facility here in Portland does not manufacture any product. We are a distribution terminal, distributing Coal Tar Creosote and Coal Tar Pitch to customers in the Northwest. Our materials are manufactured at other Koppers facilities outside of the State of Oregon. Any past records of waste disposal from Koppers facility in Portland simply attest that spills were cleaned up and disposed of according to State and Federal Laws.

If you require more information or if I can be of help in any way please feel free to call.

Sincerely,

John A. Oxford
Plant Manager

10/17

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To	From
Wm. Swearingen	John Oxford
Co. K-1800	Co. Portland
Dept.	Phone #
Fax #	Fax #

CC: Wm. Swearingen
A. Kamerer
Plant File

JAO:mn

From Oxford

Note 5/9/91 Discussed with Oxford on phone today. He will write up a draft Waste Reduction Plan and send to me for review. I told him that since we don't generate wastes from the process but only occasionally from spills that the plan should point out spill control and counter measures plus management leak control program etc.

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

March 8, 1991

In 1989, the Oregon Legislature enacted the Toxics Use Reduction and Hazardous Waste Reduction Act (ORS 465.003 through 465.037), the first of its kind in the country. The Act is intended to go beyond the traditional "end-of-the-pipe" pollution control programs and promote the prevention of pollution through facility-wide planning efforts which result in a reduction in the use of toxic substances and generation of hazardous wastes. The law benefits both businesses and the environment through reduced costs and liabilities and up-front environmental protection.

The law requires businesses, industries, government agencies and institutions to review the practices and processes that use toxic substances and generate hazardous wastes and prepare reduction plans. The law also provides for a technical assistance program provided by the Department of Environmental Quality (DEQ) to assist businesses in their planning efforts, and directs the DEQ to monitor the effectiveness of the program, including on-site review of the plans.

Many businesses have already found that they can reduce the costs and liabilities associated with handling hazardous materials and generating hazardous wastes through the implementation of a reduction program. The planning guidelines are flexible enough to allow you to develop a program which will work best in your facility. The guidelines also will help you select options that are both technically and economically feasible.

The law requires that all large toxics users (LTU) and large quantity hazardous waste generators (LQG) develop plans by September 1, 1991, and small quantity hazardous waste generators (SQG) develop plans by September 1, 1992. (See the attached fact sheet for a definition of these terms.) Our records indicate that your facility is considered an LTU or LQG and is required to develop a reduction plan by September 1, 1991. (The law states that your status in calendar year 1990 determines when your plan is due.) If you believe that our

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696

Koppers018736

records are incorrect, please contact DEQ in writing as soon as possible.

Enclosed are materials which will help you prepare a reduction plan:

- Toxics Use Reduction and Hazardous Waste Reduction Act Summary; and
- "Benefitting from Toxic Substance and Hazardous Waste Generation, A Planning Guide for Oregon Businesses." The manual contains the text of the statutes and regulations.

In order to assist you with understanding the requirements of this new law, DEQ has scheduled a series of Plan Development Workshops which will be held throughout the state in April and May. Please review the attached schedule send in your registration form as soon as possible.

In addition to the workshops, DEQ's technical assistance staff will be available through telephone assistance and visits to your facility to help you develop your plan and answer questions. A technical library of information on reduction options is available at DEQ to help you determine what programs may work best for your facility.

We hope you will use this opportunity to develop and implement a plan which reduces the use of toxic substances and the generation of hazardous wastes in your facility. Our mutual goal is to make Oregon a safer place to live and work and to improve the environment for ourselves and future generations.

If you have any questions about the law or how to prepare a reduction plan, please contact the Hazardous Waste Reduction and Technical Assistance Program at (503) 229-5913.

Sincerely,

Roy W. Brower
Manager, Hazardous Waste
Reduction and Technical
Assistance Program

RWB:mef
Enclosure

December 30, 1993

Registration Verification Report '93

DEQ
Hazardous Waste
811 SW 6th Ave.
Portland, OR 97204

1) This facility's EPA ID number is: ***ORD027734359***
2) This facility's name is:
Koppers Industries Inc
3) This facility's name as registered with the Oregon Secretary of State is:
Koppers Industries, Inc.

4) The MAILING address of this facility is:
Street address or PO Box: ***7540 NW St. Helens Road***
City: ***Portland*** State: ***OR*** ZIP: ***97210***-3663

5) The PHYSICAL LOCATION of this facility (street address) is:
Street Address: ***7540 N.W. ST. HELENS RD*** County: ***MULTNOMAH***
City: ***PORTLAND*** State: ***OR*** ZIP: ***97210-3663***

6) The LEGAL OWNER of this facility is: Organization: ***Northwest Natural Gas Company***
Contact Name: ***Sandra Hart***
Street Address or PO Box: ***220 NW 2nd Avenue***
City: ***Portland*** State: ***OR*** ZIP: ***97209*** Phone: 226-4211

7) Has facility's ownership changed since the last report to DEQ? NO If YES, on what date?

8) The OPERATOR of this facility is: Organization: ***Koppers Industries Inc***
Contact Name: AMOS S KAMERER
Street Address or PO Box: 7540 NW ST HELENS ROAD
City: PORTLAND State: OR ZIP: 97210-3663 Phone: 286-3681

9) The LAND OWNER of this facility is: Organization: NORTHWEST NATURAL GAS COMPANY
Contact Name: SANDRA HART
Street Address or PO Box: 220 NW 2ND AVE.
City: PORTLAND State: OR ZIP: 97209 Phone: 226-4211

10) Whom should DEQ contact on location regarding site visits and inspections?
Name: AMOS S. KAMERER/PLANT MANAGER Phone: ***(503) 286-3681***

11) Whom should DEQ contact about hazardous waste fees? Organization: ***Koppers Industries, Inc***
Contact Name: AMOS S. KAMERER
Street Address or PO Box: ***7540 NW St. Helens Road***
City: ***Portland*** State: ***OR*** ZIP: ***97210***-3663 Phone: ***(503) 286-3681***

12) Whom should DEQ contact if clarification is needed on these forms?
Name: AMOS S. KAMERER/PLANT MANAGER Phone: ***(503) 286-3681***

13) The Standard Industrial Classification (SIC) code(s) best describing the principal products or services rendered at this facility are[1]: ***2865***

14) This facility employs 1 TO 50 full time employees. (choices: from 1 to 50, or 51 or more)

STATUS: This facility's most recently reported status was: ***Conditionally Exempt Generator***
This generator status[2] for calendar year 1993 is: (please check appropriate box below)

☐ Large Quantity Generator ☐ Small Quantity Generator ☒ Conditionally Exempt Generator

1 SIC codes are listed on pages 13-26 of the Guidebook.
2 If you are unsure of your generator status, read Helpful Hint #5 on page 4 of the Guidebook.
(Continued on reverse side)

Cc: WES

Question 15 refers to used oil activities. A used oil handler is a used oil generator, collection facility, transporter, transfer facility, marketer, used oil burner, or used oil processor/re-refiner. Refer to 40 CFR 279 for used oil handler definitions. **NOTE:** If your facility is a used oil generator that ONLY generates used oil that is sent via transporter to a used oil processor, you should check the "NO" box and skip to question 16.

15) Is this facility a used oil handler? YES ☐ NO ☒ (if your answer is "NO", skip to question 16. If your answer is "YES", please check as many of the following boxes as appropriate).

What type of used oil activites take place at your facility?

☐ Used oil collection facility ☐ Used oil transporter ☐ Used oil generator not sending to processor

☐ Used oil transfer facility ☐ Used oil processor ☐ Used oil re-refiner

☐ Used oil marketer (Please indicate type below)

- ☐ Generator marketing to burner
- ☐ Other marketer of off-specification used oil
- ☐ Specification used oil marketer who first claims used oil meets the specification

☐ Used oil burner (Please indicate type of device below)

- ☐ Utility boiler
- ☐ Industrial furnace
- ☐ Space heater
- ☐ Other (please specify) _____

16) Is this facility a hazardous waste transporter? YES ☐ NO ☒ (if your answer is "NO", skip to the certification and signature section. If your answer is "YES", please check as many of the following boxes as appropriate).

☐ I transport only hazardous waste generated at my facility

☐ I am a transporter for commercial purposes

I transport hazardous waste by: (check all appropriate boxes)

- ☐ Highway
- ☐ Rail
- ☐ Water
- ☐ Air

My PUC Authority # is _____

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, or imprisonment.

_____ FEB. 1, 1994

Signature **Date**

AMOS S. KAMERER PLANT MANAGER

Name (please print) **Title**

1993 Waste Generation and Management—Answer Sheet

PLEASE ENTER:

Facility name: KOPPERS INDUSTRIES, INC.

EPA ID number: ORD 027734359

Note: Make as many two-sided copies of the answer sheet as you need BEFORE anwering any questions.

1. DISCARDED CLEANUP MATERIALS FROM A CREOSOTE SPILL. HAZARDOUS DUE TO TOXICITY.

2. U051

3. OR NO 4. 2865 5. ☒ No ☐ Yes

6. A 53 A A A 7.B B301

8. a ☐ b ☒ c ☐ d ☐ 8A. M

9. a ☒ b ☐ c ☐ ☐ 9A. 008001-58-9

10. a ☐ b ☐ c ☒ d ☐

11. 1378 ST ☐ MT ☐ P ☒ K ☐ L ☐ C ☐ G ☐

11A. ☐ Pounds/gallon ☐ Specific gravity ☐ Pounds/cubic yard

12. ☐ On-site ☒ Off-site ☐ Both On-site & Off-site

13A. M 13B. M

14.

1993 manifest shipment date (enter month/day)	Manifest document number	Quantity shipped (use unit of measure from #11)	EPA ID # of receiving facility	How managed (enter system code)	Managed at comm. facility? (Y/N)
05/18/93	92713957	1378 LBS.	CA0000633164	M132	Y

Please turn over to continue.

Comments:

CO:WES

Koppers018740

PLEASE ENTER:

Facility name: ______________________

EPA ID number: ______________________

14. (cont.)

1993 manifest shipment date (enter month/day)	Manifest document number	Quantity shipped (use unit of measure from #11)	EPA ID # of receiving facility	How managed (enter system code)	Managed at comm. facility? (Y/N)

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1993 Hazardous Waste Reporting Forms

Forms and Instructions

Oregon Department of Environmental Quality
Waste Management
& Cleanup Division
811 SW 6th Avenue
Portland, OR 97204

Printed November 1993

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Introduction

Note: Along with this Forms packet you should have received a Reference Guidebook. Many of the technical terms in this section and in the forms are defined in the "Definitions" section of the Guidebook, pages 7-12. If you need further clarification, or if you did not receive a guidebook, contact DEQ at (503) 229-5913.

Overview

Every year hazardous waste generators; hazardous waste treatment, storage, and disposal facilities; and designated hazardous waste recycling facilities are required to fill out forms describing their activities during the previous year. The forms must then be submitted to the Oregon Department of Environmental Quality (DEQ). Requirements to complete these forms **replace** DEQ Quarterly Report and federal Environmental Protection Agency (EPA) Biennial Report requirements.

These forms and the Hazardous Waste Reporting Guidebook provide you with background material on the forms, hints, definitions, and codes that will help you complete the forms.

Background and purpose

In October 1990, DEQ launched an effort to improve its collection of data regarding the generation and management of hazardous wastes in Oregon. The need for this comes from several sources:

- Increased data requirements from EPA
- A new, more equitable hazardous waste activity fee structure for the state of Oregon that requires information on how hazardous wastes generated in Oregon are managed
- A desire on the part of DEQ to gain an improved understanding of the hazardous waste generated and managed in the state. This will allow DEQ to better target its technical assistance efforts.

These Forms are designed to collect data to meet many of DEQ's hazardous waste generation and management data needs. In this way, DEQ hopes to avoid repeating the questions it asks and is trying to streamline the process of collecting and aggregating data.

The Hazardous Waste Reporting Forms allow hazardous waste generators; hazardous waste treatment, storage and disposal facilities; and designated hazardous waste recycling facilities to:

- Meet EPA Biennial Report requirements
- Meet DEQ reporting requirements .

In addition, data from these forms will allow DEQ to:

- Meet EPA Biennial Report requirements
- Meet EPA Capacity Assurance requirements
- Collect fees under the new, more equitable fee collection system.

Completing these forms **does not** constitute preparing a Toxics Use and Hazardous Waste Reduction plan or annual progress report. For information on Toxics Use and Hazardous Waste Reduction plan requirements, contact the DEQ Waste Reduction Assistance Program staff at (503) 229-5913.

When to submit the forms

If your facility is a small or large quantity hazardous waste generator; a hazardous waste treatment, storage, or disposal facility; or a designated hazardous waste recycling facility, reporting forms must be completed every year.

The completed forms are due back to DEQ by March 1, 1994, or within 65 days of mailing by DEQ, whichever is later. Upon written request and reasonable justification, DEQ may grant an extension to the reporting deadline of up to 30 days. Submit completed forms to:

Oregon DEQ
Management & Waste Cleanup Division
Attn: Hazardous Waste Forms Clerk
811 SW Sixth Avenue
Portland, Oregon 97204-1390

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DEQ authority to collect this information

The rules requiring that hazardous waste generators; hazardous waste treatment, storage, and disposal facilities; and designated hazardous waste recycling facilities complete these forms can be found in the Oregon Administrative Rules (OAR) 340-102 and 340-104 as amended by the Environmental Quality Commission of the State of Oregon on July 24, 1991.

The statutory authority for these rules can be found in the Oregon Revised Statutes (ORS) 466.020, 466.075, and 466.195.

Typing forms

DEQ requests that all forms be typed.

Where to go for help

To determine whether you need to complete these forms, Complete the worksheets on pages 5-6.

If you need any help in figuring out whether you need to complete the forms or you have questions in the course of trying to complete them, you can contact DEQ at (503) 229-6938.

Declaring information confidential or trade secret

Some information submitted on these forms may be claimed as confidential business information or trade secret by the respondent in accordance with ORS 466.090, ORS 192.401 to 192.505, and OAR 340-105-12. For DEQ to hold such information confidential, you must declare and document such information as confidential **at the time** the forms are submitted to DEQ. **Unless properly submitted and documented to DEQ,** such information will **not** be treated as confidential and will be available upon request to the general public.

For the forms to be properly submitted as confidential or trade secret information, you must at the time of submission do **all** of the following:

1. Stamp each page submitted with the claimed confidential information with the words "confidential business information", or the equivalent

2. Specifically identify which information elements or information classes on the stamped pages are claimed as confidential, **and**

3. Give an explanation as to why the information should be considered confidential.

Even if the information is properly submitted following DEQ's rules and policies, when the claim is reviewed, the information **may not** qualify and **may not** be accepted as confidential business information. In this case, you will be notified of this decision with the reasons for it, and the information will be available for public disclosure.

The information submitted on these forms will be made available to EPA. If the information has been submitted under a claim of confidentiality, the state will make that claim of confidentiality to EPA. EPA will treat the information claimed confidential in accordance with applicable federal law (40 CFR part 2 *et alia*).

Documents useful in completing these forms

In preparing your 1993 Hazardous Waste Reporting Forms, the following documents may be useful to have on hand:

- Records of hazardous waste quantities generated or accumulated
- Hazardous waste manifest forms
- Results of laboratory analysis of your wastes
- Contracts or agreements with off-site facilities that manage your wastes
- Copies of permits for on-site waste management systems
- If your facility has prepared one, your Oregon State Toxics Use Reduction & Hazardous Waste Reduction Plan
- If your facility submitted it, the 1992 Toxic Chemical Release Inventory Form required under Title III, Section 313 of the Superfund Amendments and Reauthorization Act (SARA 313).

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Do I need to complete these forms?

Most facilities generating and/or managing hazardous waste need to complete the attached forms. If you fit into **any** of the following categories, you are required to report. If you are a Conditionally Exempt Generator, please update, sign, and return only the Registration Verification Report to DEQ.

- Hazardous Waste Generators (small or large quantity)
- Hazardous Waste Treatment, Storage, or Disposal Facilities (TSDs)
- Designated Hazardous Waste Recycling Facilities

The worksheet (Worksheet #1: "Defining Your Status") on page 5 of this booklet will help you determine whether you fit into any of these categories.

Who does *not* need to complete these forms?

The following facilities do **not** need to complete these forms:

- Facilities that do not fit into any of the above categories (CEGs must update & return the RVR)
- Facilities that **only** generate hazardous wastes that are discharged directly to Publicly Owned Treatment Works or under National Pollutant Discharge Elimination System Permits
- Facilities that **only** generate hazardous waste that is recycled in a completely self-contained or closed-loop system.

Note: CEGs do not need to complete the Waste Generation and Management Form, but must update, sign, and return the Registration Verification Report.

What if I *do not* need to complete the forms?

If you do not need to complete the forms, please update, sign and return the Registration Verification Report to DEQ.

What if I need help to complete the forms?

DEQ has developed a number of ways to help you complete the forms.

1. **A Help Line**. DEQ has set up a help line to assist you. If you have **any** questions about the forms, call us at (503) 229-6938.
2. **A Guidebook**. Included with this Forms packet is a Guidebook, which should help you through the forms. Contact DEQ if you need a Guidebook. The Guidebook includes:
   - A series of "Helpful Hints" to assist you with the Forms
   - A "Definitions" section which explains the technical terms that you will encounter completeting the forms
   - A complete set of the codes you will need to complete the forms
3. **Worksheets**. Following this section is a series of worksheets that will help you figure out how to describe yourself to DEQ.

How are these forms different from the previous quarterly reports?

These forms are the result of an effort to meet a number of DEQ's data needs using one set of forms. You should keep in mind that they are different from past data collection methods in several ways:

1. These forms are collected on an **annual** basis; they replace the previous **quarterly** and **biennial** reporting systems
2. These forms collect information about **all** hazardous waste generated at your facility, even if the hazardous waste was managed on-site; previously, DEQ only collected information about waste that was shipped off-site.

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What's next?

1. Following this section are two worksheets:

   - **Worksheet #1: "Defining Your Status"** will help you determine whether you need to complete these forms and, if you do, into which category or categories you fit.

   - **Worksheet #2: "Generator Status"** will help hazardous waste generators determine whether they are large quantity generators, small quantity generators, or conditionally exempt generators.

     These worksheets are designed to help **you**. You should not submit them to DEQ.

2. Following the Worksheets are the Waste Generation and Management Forms.

   - Use the Guidebook as you work through the forms. We suggest that you leave the Guidebook open to the "Definitions" section as you complete the forms

   - Remember, DEQ has a help line: if you have any questions, call (503) 229-6938.

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Worksheet #1

Defining Your Status

Before completing this worksheet, you may want to look up the following:

- Definition of Hazardous Waste — Guidebook, page 8
- Definition of an Acute Hazardous Waste — Guidebook, page 7.

Using these definitions, you can now figure out (check *all* that apply):

❑ **I am a Small or Large Quantity Hazardous Waste Generator.**

(This does not include conditionally exempt generators (CEGs), which are **not required** to complete these forms. See Worksheet #2 for a more detailed explanation of how to determine your generator status.)

This means that in any one calendar month in 1993 you **generated**:

- Over 2.2 pounds of acutely hazardous waste, or
- Over 220 pounds of spill cleanup debris containing hazardous waste, or
- Over 220 pounds of hazardous waste.

Or, at any time during 1993 you **accumulated:**

- Over 2.2 pounds of acutely hazardous waste, or
- Over 2,200 pounds of hazardous waste.

❑ **I am a RCRA Treatment, Storage, or Disposal Facility.**

This means that your facility has filed a Part A application for or holds a Part B permit for the Treatment, Storage, or Disposal of Hazardous Waste as required under the Resource Conservation and Recovery Act.

❑ **I am a Designated Hazardous Waste Recycling Facility.**

This means that your facility receives hazardous waste from off-site and recycles this waste in units that are **exempt** from requirements to obtain a Resource Conservation and Recovery Act permit for the management of hazardous waste.

If you do not fit into any of these categories, you are *not* required to complete these forms. You must, however, update and sign the Registration Verification Report (RVR) and return it to DEQ.

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Worksheet #2

Generator Status

In determining your Generator Status, you should note the following:

- Your regulatory status as a large quantity, small quantity, or conditionally exempt generator may change from one calendar month to the next.
- For purposes of these forms, however, you are defined based on the **most** hazardous waste you generated or accumulated **in any one calendar month** in 1993.
- Therefore, if you were an LQG for **one calendar month** in 1993, you need to report as an LQG on the forms.

Using the definitions of Hazardous Waste and Acutely Hazardous Waste found on pages 7-8 of the Guidebook, determine the following:

❑ **I am a Large Quantity Generator (LQG)** (also called fully-regulated generator): This means that in any one calendar month in 1993 you **generated**:

- 2,200 or more pounds of hazardous waste or,
- 2,200 or more pounds of spill cleanup debris containing hazardous waste or,
- More than 2.2 pounds of acutely hazardous waste or,
- More than 220 pounds of spill cleanup debris containing an acutely hazardous waste

Or, at any time during 1993 you **accumulated**:

- More than 2.2 pounds of acutely hazardous waste on-site

❑ **I am a Small Quantity Generator (SQG)**: This means that in one calendar month you **generated:**

- More than 220 pounds and less than 2,200 pounds of hazardous waste, or
- More than 220 pounds and less than 2,200 pounds of spill cleanup debris containing hazardous waste

Or, at any time during 1993 you **accumulated:**

- More than 2,200 pounds of hazardous waste on-site.

❑ **I am a Conditionally Exempt Small Quantity Generator (CEG)**: This means that in one calendar month you generated:

- 2.2 pounds or less of acutely hazardous wastes or,
- 220 pounds or less of hazardous wastes or,
- 220 pounds or less of spill cleanup debris containing hazardous wastes.

Or, at any time during 1993 you **accumulated**:

- Up to 2,200 pounds of hazardous waste on-site .

If you are a CEG, you do not need to complete the Waste Generation and Management Form, as long as you are not a TSD, or a designated Recycling Facility (see Worksheet #1). If this applies to you, please update, sign and return the Registration Verification Report (RVR).

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1993 Hazardous Waste Generation and Management Form

Instructions

Who needs to complete this form?

All large and small-quantity hazardous waste generators must complete this form.

See pages 9-10 of the Guidebook for a definition of large and small-quantity hazardous waste generators.

What information does this form collect?

This form collects information on the hazardous waste generated at your facility.

For example, it collects information on the **type** of hazardous waste generated, the **process** by which it was generated, any efforts made to **reduce** the generation of or recycle the waste, and how and where the waste was **managed**.

What information do I need to compete this form?

To complete this form you need detailed information on the hazardous waste generated at your facility.

For each hazardous waste stream, you need to know how much waste was generated in 1993, how much waste was managed in 1993, and how and where the waste was managed.

Tips

How to identify a hazardous waste stream

See "What is a hazardous waste?" on page 1 of the Guidebook.

EPA has not yet developed a "formal" definition of a hazardous waste stream. Use your best judgment in identifying individual waste streams at your facility. Use the following guidelines:

- Each hazardous waste stream should have one **origin** (see question 8).
- In most cases, a waste stream should have only one **form** (forms of waste are listed on pages 43-44 in the "Codes" section at the end of the Guidebook) and one **source** (sources of waste are listed on page 41 in the "Codes" section at the end of the Guidebook).
- A single waste stream may have several **waste codes**, however. (EPA waste codes are listed on pages 27-39 in the "Codes" section at the end of the Guidebook.)

If you generate a hazardous waste, manage it on-site, and then generate a hazardous residual from this management, you generate two separate waste streams (the original hazardous waste and the hazardous residual) and you must complete two answer sheets.

For example, you generate a hazardous sludge and de-water it at your facility. A hazardous waste filtercake is generated from the dewatering. This filtercake is shipped off-site for landfill. You must complete two answer sheets:

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Tips, cont.

1. On the first answer sheet, describe the sludge. State that the waste's **origin** (question 8) is from ongoing generation, and that its **management** (questions 12 and 13) is on-site sludge dewatering.

2. On the second answer sheet, describe the filtercake. State that the waste's **origin** as a hazardous residual from managing a previously existing hazardous waste, and that its **management** is off-site landfilling.

Which wastes to report

- **Do** report all federal and Oregon state-only hazardous wastes generated or managed on-site during 1993.

- **Do** report all hazardous wastes that were managed in **RCRA interim status or permitted** and **RCRA-exempt** systems.

- **Do NOT** report wastes that are not defined as regulated hazardous wastes, such as PCBs, household hazardous wastes, etc.

- **Do NOT** report wastes that were received from off-site and then shipped off-site again without being treated on-site.

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1993 Hazardous Waste Generation and Management Form

Questions

Please complete one two-sided **answer sheet** for **each** hazardous waste stream generated on-site and/or shipped off-site in 1993. Each hazardous waste stream should be reported on a separate answer sheet. Do **not** report wastes that were received from off-site and then shipped off-site again without being treated on-site: you will need to report those wastes on the Hazardous Waste Received Form (Form 4), which can be obtained by calling DEQ at 229-6938.

Note: Make as many copies of the answer sheet as you need BEFORE answering any questions.

☞ **This is a question sheet. Record your answers on the separate answer sheet! (One sheet for each hazardous waste or hazardous waste residual.)**

1. Briefly describe the hazardous waste stream reported on this form.

Your description should cite:

- The general type of hazardous waste
- The source of the hazardous waste
- The type of hazard
- The generic chemical name(s) associated with the hazardous waste

(For example, "Spent nonhalogenated solvent from flush rinsing automobile parts. Hazardous due to ignitability and composed primarily of petroleum naptha.")

2. Which EPA hazardous waste code(s) are associated with this waste?

Waste codes are listed on pages 27-39 in the "Codes" section of the Guidebook.
Enter up to four codes, first listing the code that best describes the waste. If you need space for additional codes, use the Comments section. If the waste is a lab pack, enter "LABP." (Note: If the waste is an Oregon state-only waste, leave this section blank.)

3. Is this an Oregon state-only hazardous waste? If so, which Oregon waste code *best describes* the waste?

Oregon state-only hazardous waste codes are listed on page 40 in the "Codes" section of the Guidebook.

4. What is the four-digit *Standard Industrial Classification (SIC) Code* for the product or service associated with the generation of this waste stream?

SIC codes are listed on pages 15-26 in the "Codes" section at the end of the Guidebook. Use the code associated with the **process** that generates this waste stream, not with the overall business activity associated with the facility or with the owner of the facility.

For example, if the hazardous waste stream is a spent solvent cleaner from degreasing engine parts of a truck fleet and the truck fleet is owned and operated by a book publisher, you should enter the SIC code for vehicle maintenance and repair, **not** for book publishing.

The SIC code entered here will **not** be used by DEQ to classify your business. DEQ will **only** use the information to analyze hazardous waste generation and management and target technical assistance efforts.

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5. Is this a "mixed radioactive" waste?

Mixed radioactive wastes are wastes that are **both**:

- Hazardous as defined by the Resource Conservation and Recovery Act (see "What is a hazardous waste?" in the Guidebook, page 1) **and**
- Radioactive as defined by the Atomic Energy Act (see the definition of Nuclear Waste under "What is *not* a hazardous waste?" in the Guidebook, page 2).

Radioactive waste that is not mixed with a hazardous waste should **not** be reported on this form.

6. Which *source code(s)* identify the production, service, management process, or cleanup activity associated with the generation of this hazardous waste stream?

Generation source codes are listed on page 41 in the "Codes" section at the end of the Guidebook. The source code describes the process (for example, painting, oil changes, cleanup) associated with the generation of the hazardous waste.

Space is provided for up to three codes. Use more than one generation source code **only if necessary.** If you need space for additional codes, use the Comments section.

7. Which *form code* best describes the form of this hazardous waste?

Form codes are listed on pages 43-44 in the "Codes" section at the end of the Guidebook. The form code describes the form of the hazardous waste (for example, mixed lab packs, scrubber water, oily sludge). Space is provided for one code. If you need space for additional codes, use the Comments section of the answer sheet.

8. What is the *origin* of the waste?

Select the option that **best describes** the origin of this hazardous waste stream.

a. From **ongoing** generation from a production process or service activity
b. As a result of a **one time/intermittent** activity (for example, spill cleanup or equipment decommissioning)
c. As a hazardous residual from management of a **non-hazardous** waste
d. As a hazardous residual from management of a previously existing **hazardous** waste

NOTE: If you answered a, b, or c, go to question 9.
If you answered d, go to question 8A.

8A. If the waste is a *residual* from management of *hazardous waste,* enter the system code for the management system associated with generating the waste.

System codes are listed on pages 47-48 in the "Codes" section at the end of the Guidebook.
For example, if the waste stream reported on this form is a hazardous ash generated from incinerating a hazardous waste sludge, enter system code M042, the code for incineration of sludges.

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9. Are there any toxic substances in this waste stream that your facility reported on its 1992 Toxic Chemical Release Inventory (TRI) Reporting Form (Form R)?

Check **one** of the following:

a. **No**, this facility did not fill out a 1992 Form R.
b. **No**, the facility **did** complete a 1992 TRI Report Form R but the hazardous waste described on this answer sheet **does not** contain any toxic substances that were reported on the form.
c. **Yes**, this facility **did** complete a TRI Report Form R in 1992 and the hazardous waste described on this answer sheet **does** contain toxic substances that were reported on the form.

NOTE: If you checked a or b go to question 10.
If you checked c, go to question 9A.

9A. Please provide the C.A.S. number(s) for any toxic substances present in the waste stream that were reported by this facility on its 1992 Toxics Release Inventory Form R.

Enter up to four C.A.S. numbers. If you need space for additional C.A.S. numbers, use the comments section.

10. Please indicate the point at which the waste reported on this form was measured or calculated. (Check one)

a. Before mixing: this waste stream is **not** a mixture of hazardous waste streams and is **not** mixed with any non-hazardous waste streams
b. After mixing with other **hazardous** waste streams
c. After mixing with **non-hazardous** waste streams
d. After mixing with **both** hazardous and non-hazardous waste streams

11. What is the total amount of this waste stream generated by your facility in 1992, and what is the unit of measure?

Indicate the appropriate code for the unit of measure used: ST=short tons; MT=metric tons; P=pounds; K=kilograms; G=gallons; L=liters; and C=cubic yards. If the quantity is a lab pack, enter the combined weight of the wastes and the shipping containers.

NOTE: Please use the same unit of measure when responding to questions 13 and 14.

11a. If the waste is measured in either gallons, liters, or cubic yards, what is its density?

Density information is provided on Material Safety Data Sheets. If you do not provide a density, the density of water will be assumed for wastes measured in gallons or liters; the density of soil will be assumed for wastes measured in cubic yards.

Questions 12-14 ask for information about how and where this hazardous waste stream was managed.

If the hazardous waste stream received more than one form of management, only report the **final** activity on this form. If the residual from this activity is a hazardous waste, it should be reported as a **separate** waste stream on a **separate** answer sheet.

For example, a solvent is recycled on-site, producing a still bottom. The still bottom is then incinerated off-site. You should report **only** the still bottom on this answer sheet and report **only** the incineration in this section. The recycling of the solvent should be reported on a separate answer sheet. On the separate answer sheet, the management of the solvent should be reported as "recycled."

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12. Was this hazardous waste stream managed on-site or off-site in 1993?

- This hazardous waste stream was managed **on-site** ——> answer 13.
- This hazardous waste stream was managed **off-site** ——> answer 14.
- Part of this waste stream was managed on-site and part was managed off-site. ——> answer 13 and 14.

Remember — if the waste stream was **first** managed on-site and its residual was managed off-site, you should report **only** the on-site management here. The residual and its management should be reported on a separate answer sheet.

13. If all or part of the hazardous waste stream was managed on-site, *how much* was managed and *how* was it managed?

IMPORTANT: Use ONLY the unit of measure from question 11.
System codes are listed on pages 47-48 in the "Codes" section at the end of the Guidebook. Space is provided on the answer sheet to report management of the waste by up to two system types in cases where **part** of the waste stream was managed using one system and **part** was managed using another system.

14. If all or part of the hazardous waste stream was managed off-site, please provide the following for *each shipment* of the waste:

- The shipment date
- The manifest document number
- The quantity shipped (use **ONLY** the unit of measure from question 11)
- The EPA ID number of the first location to which the waste was shipped
- The code for how the waste was managed (system codes are listed on pages 47-48 in the "Codes" section at the end of the Guidebook)
- Whether the waste was sent to a commercial facility

A "commercial facility" is a facility whose business is the management of wastes generated by other firms. A facility which **only** manages wastes generated by facilities under the same ownership is **not** a commercial facility.

If this waste was sent off-site in more than four shipments, please use the additional space on the back side of the answer sheet.

Note: Make as many copies of the answer sheet as you need BEFORE answering any questions.

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1993 Waste Generation and Management—Answer Sheet

PLEASE ENTER:

Facility name: _____

EPA ID number: _____

Note: Make as many two-sided copies of the answer sheet as you need BEFORE answering any questions.

1. _____

_____

2. _____ _____ _____ _____

3. OR _____ **4.** _____ **5.** ❑ No ❑ Yes

6. A _____ A _____ A _____ A _____ **7.B** _____

8. a❑ b❑ c❑ d❑ **8A.** M _____

9. a❑ b❑ c ❑ ❑ **9A.** _____ _____ _____ _____

10. a❑ b❑ c❑ d❑

11. _____ ST❑ MT❑ P❑ K❑ L❑ C❑ G❑

11A. _____ ❑ Pounds/gallon ❑ Specific gravity ❑ Pounds/cubic yard

12. ❑ On-site ❑ Off-site ❑ Both On-site & Off-site

13A. _____ M _____ **13B.** _____ M _____

14.

1993 manifest shipment date (enter month/day)	Manifest document number	Quantity shipped (use unit of measure from #11)	EPA ID # of receiving facility	How managed (enter system code)	Managed at comm. facility? (Y/N)

Please turn over to continue.

Comments:

_____

_____

_____

_____

_____

_____

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PLEASE ENTER:

Facility name: ____________________

EPA ID number: ____________________

14. (cont.)

1993 manifest shipment date (enter month/day)	Manifest document number	Quantity shipped (use unit of measure from #11)	EPA ID # of receiving facility	How managed (enter system code)	Managed at comm. facility? (Y/N)

Registration Verification Report '94

This report is for **DEQ/EPA ID ORD027734359 assigned to Koppers Industries Inc located at 7540 NW ST HELENS RD, PORTLAND 97210 in MULTNOMAH county.**

Did the ownership of this facility CHANGE in calendar year 1994? **NO** [X]
YES [ ] **Date:** [ ]

The MAILING ADDRESS of this facility is:
Name: Koppers Industries, Inc.
Address: 7540 NW St. Helens Road
City: Portland State: OR ZIP: ~~97229~~ 92710-3663

The LEGAL OWNER of this facility is
Name: Northwest Natural Gas Company
Address: 220 NW Second Avenue Phone: 503 226-4211
City: Portland State: OR ZIP: 97209

The OPERATOR of this facility is:
Organization: Koppers Industries Inc Contact: Amos Kamerer
Address: 7540 NW St Helens Rd Phone: 503 286-3681
City: Portland State: OR ZIP: 97210-3663

The OWNER of the LAND on which this facility is located is:
Name: Northwest Natural Gas Company
Address: 220 NW Second Ave. Phone: 503-226-4211
City: Portland State: OR ZIP: 97209

The BILLING ADDRESS for hazardous waste fees for this facility is:
Organization: Koppers Industries Inc Contact: Amos Kamerer
Address: 7540 NW St Helens Rd Phone: 503 286-3681
City: Portland State: OR ZIP: 97210-3663

The contact for SITE VISITS and INSPECTIONS for this facility is:
Name: ~~John Safford~~ Amos Kamerer / Plant Manager Phone: (503) 286-3681

The contact for QUESTIONS ABOUT THESE FORMS is:
Name: Amos Kamerer Phone: 503 286-3681

The Standard Industrial Classification (SIC) code that best describes this facility's operations is:
2865 CYCLIC CRUDES AND INTEMEDIATES
If this SIC code is UNKNOWN or NOT correct, please enter a new one [ ]

In prior years, this facility reported the number of regular employees as **51 or more**
How many people were employed in 1994? [11]

Hazardous Waste Generator Status

This facility last reported its generator status to DEQ **In 1993 as a Conditionally Exempt Generator**
Check the appropriate box below to indicate this facility's generator status for calendar year **1994**

[ ] Large Quantity Generator [ ] Small Quantity Generator [X] Conditionally Exempt Generator

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1. Does this facility recycle hazardous waste generated on site?

☐ YES ☒ NO--If your answer is no, skip to question 2.

If your answer is yes, what type of recycling activities occur at your facility? (Check as many boxes as appropriate.)

- ☐ use as an ingredient in a process
- ☐ use as a substitute as a commercial chemical product
- ☐ solvent recycling
- ☐ acid regeneration
- ☐ precious metal recovery
- ☐ energy recovery
- ☐ other

2. Is this facility a designated recycling facility receiving waste from offsite for recycling

☐ YES ☒ NO--If your answer is no, skip to question 3.

If your answer is yes, what type of recycling activities occur at your facility? (Check as many boxes as appropriate.)

- ☐ use as an ingredient in a process
- ☐ use as a substitute as a commercial chemical product
- ☐ solvent recycling
- ☐ acid regeneration
- ☐ precious metal recovery
- ☐ energy recovery
- ☐ other

3. Is this facility a generator that treats in accumulation tanks or containers?

☐ YES ☒ NO--If your answer is no, skip to certification statement.

If your answer is yes, what type of recycling activities occur at your facility? (Check as many boxes as appropriate.)

- ☐ solidification
- ☐ chemical precipitation
- ☐ settling/clarification
- ☐ neutralization
- ☐ stabilization
- ☐ other

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, or imprisonment.

Signature	Date
Amos F. Kamerer	April 7, 1995
Name (please print)	**Title**
	Plant Manager

OREGVR94

Portland – NPDES Permit site
Inspection 9/~~28~~/94 26

Koppers018759

09/28/94 10:11 KOPPERS PORTLAND 001

DEPARTMENT OF ENVIRONMENTAL QUALITY
SOURCE INSPECTION FORM

☐ WQ ☑
☐ SW
☐ AQ
☐ NC

COUNTY: Multnomah

SOURCE NAME: Koppers Industries

OFFICIAL CONTACTED: Amos Kamerer

SOURCE ADDRESS: 7540 NW St Helens Rd
Portland OR
97210-3663

TABLE A PARA	PREP TIME	TRANS TIME	INSPECTION TIME	PAPER TIME

101003

PERMIT NUMBER CO.	PERMIT NUMBER SOURCE	POINT	ACTION NO.	ACTION TYPE	DATE SCHEDULED MO. DAY YR.	DATE ACHIEVED MO. DAY YR.	RESULT	INSPEC. NO.
	47430			7	9 26 94	9 26 94	X	

8 1
8 2
8 3
8 4

COMPLIANCE STATUS *(RESULT CODE)*

	IN COMP.	NOT IN COMPLIANCE	ON SCHEDULE
All permit conditions	☒		
Permit emission limits	R	A	I
Emission standards	S	B	J
Performance reqts.	T	C	K
Monitoring & Reporting	U	D	L
Open burning limits	V	E	M
Procedural Reqts.	W	F	N
Fugitive emissions	X	G	O
Other	Y	H	P

TREATMENT/PROCESS EQUIPMENT – ADDITIONAL REMARKS – OPERATING CONDITIONS

The site is a storage and distribution terminal for pencil pitch. Pitch is melted on site.

I toured the facility w/ Amos Kamerer and TJ Turner. We looked at the outfall on the SE corner of the site. The outfall drains the tank form area by pipe.

I compared the July 94 DMR with lab data. OK

SOURCES IN VIOLATION & LIMITS VIOLATED

NPDES Permit site inspection
WEL copy received 9/28/94

RECEIVED
SEP 21 1994
KOPPERS INDS., INC.
PORTLAND, OR

CC: WESWEARINGEN
K-1800

Elliot J. Zais 26 Sept 94
SIGNATURE OF INSPECTOR AND DATE

SIGNATURE OF PERSON INTERVIEWED AND DATE

SOURCE COPY

DEQ/RO-101 (1-88)

Koppers018760

KOPPERS INDUSTRIES

INTEROFFICE CORRESPONDENCE

To:	Leslie Hyde	**From:**	John E. Marcinowski
Location:	K-1800	**Location:**	K-1800
Subject:	February Activities	**Date:**	March 2, 2000

The following activities took place in the Community & Regulatory Programs Dept. and Environmental Dept. during the month of February:

1. SH&E MANAGEMENT SYSTEM

- Benchmarked with USS Clairton Coke plant
- The agenda and supporting documents were assembled for the Green Spring implementation process.
- Members of the corporate System team (Leslie Hyde, Rick Harris and me) worked on the following System elements while at the plant:
  - The plant significant hazards and impacts were determined and prioritized
  - Eighteen activities were identified during the process requiring the documentation of applicable procedures.
  - Similar documented procedures from other wood plants were provided and five were modified to meet the Green Spring current activities.
  - Plant job descriptions were modified to include SH&E responsibilities/language.
  - A total of 23 description were develop and are being reviewed/approved by the plant manager
  - The elements of the System which would be addressed (if applicable) in the plant managers monthly operating report were generated
  - Guidelines were developed for the plant section of the Management Review element of the System and incorporated into the System manual
  - An Objectives and Targets worksheet for the plant was developed with several examples provided
  - A training matrix was started for all plant employees
- System posters were customized and sent to 13 plants to date
- Eleven operating procedures were received from the plant System teams and forwarded for the initial CSG review process

2. 2000 SH&E MANAGEMENT SEMINAR

- The members of the seminar committee were busy making last minute preparations for the 2000 SH&E Management Seminar to include:
  - Conducting dry runs for all presentations
  - Finalized master workbook for printing
  - Standardized all PowerPoint presentations
  - Obtained necessary internal AV equipment to cut down on cost

KOPPERS INDUSTRIES

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238

Telephone: (412) 826-3970
FAX: (412) 826-3999

TO: S. SMITH LOCATION: K-1800

COMPANY NAME: K11

COMPANY TELEPHONE NUMBER:

FROM: B. MEISINGER

NUMBER OF PAGES TO FOLLOW: 8

IF YOU DO NOT RECEIVE ALL MATERIAL TRANSMITTED, PLEASE CALL US ON: 412/826-3971

OUR PANAFAX NUMBER IS: 412/826-3999

SENT BY: B. MEISINGER

TIME: 2:00 PM

DATE: 2.13.98

NOTES: STEVE,
PORTLAND LETTERS - ALL I COULD FIND.
CALL ME IF YOU HAVE QUESTIONS.

BILL

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

File No. P97-10
March 19, 1997

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

Attention: James T. Dietz

Subject: Portland Pitch Ship Unloading Pier & Pipe Line Project
Engineering Support

Reference: Meeting in Portland on March 13, 1997 between Jim Dietz, William Swearingen, Amos Kamerer, and Cameron McKernan

Gentlemen:

Confirming the discussions during our meeting on March 13, 1997 I have been engaged to perform the following tasks to support the Pier and Pipe Line Project:

* Prepare and submit the following applications:

  - City of Portland Planning Bureau Application for Land Use/Greenway Review for Project Approval.

  - U. S. Corps of Engineers/State of Oregon Division of State Lands Application for work in or affecting navigable waters or Oregon waterways.

* Arrange for and obtain land surveying services and survey maps to describe the pier site, pier access bridge location, and pipe line route. Survey to include soundings on face of pier for ship berthing. Site to be "staked" to locate the principal corners of the pipe line path.

* Preliminary design of the pier access bridge and modification of the existing pier to show ship hose connections and pipe supports.

* Prepare a site plan for the project. Reduced size site plans will be submitted with the applications as required.

* Follow-up and coordinate with the City of Portland and the Corps of Engineers to resolve questions and to obtain the permits and approvals expeditiously.

Cont'd . . .

File No. P97-10
March 19, 1997

Koppers Industries, Inc. (Attention: James T. Dietz)
Portland Pitch Ship Unloading Pier & Pipe Line Project
Engineering Support

* Coordinate with Tar Tech and Gear Bulk to obtain information required to define pier modification and pipe line supports.

* Prepare a study plan of ship berth showing pier/ship interface at extreme water levels and realistic ship draft conditions to show distances between ship and pier pipe connections.

* Prepare a preliminary Specification for Construction of Bridge, Pipe Line and other site work between the pier and the storage tanks.

In performing these tasks, I expect to prepare the following plans:

- Site Plan
- Pier Walkway & Access Bridge (Preliminary Design):
  - Arrangement
  - Piling Plan
  - Typical Structural Sections
- Ship Berth Unloading Study
- Pipe Line Typical Sections & Supports

Plans will be in sufficient detail for experienced, competent people to use for estimating.

I understand the work is to be completed mid April.

I will do this work on a time-and-material basis. My rates are:

Principal Engineer:	$75.00 per man-hour
Senior Engineer/Designer:	$50.00 per man-hour
Senior Designer/Drafter:	$35.00 per man-hour
Designer/Drafter:	$30.00 per man-hour
Drafter Trainee:	$20.00 per man-hour

I estimate my work during this preliminary phase will cost you $15,000. If this estimate changes as I proceed, I will inform you.

Cont'd . . .

File No. P97-10
March 19, 1997

Koppers Industries, Inc. (Attention: James T. Dietz)
Portland Pitch Ship Unloading Pier & Pipe Line Project
Engineering Support
Page 2 of 3

As the engineering progresses to the detail level, I will submit an estimate to do the detail Construction Plans and Specifications, to obtain the City of Portland Building Permit, and to provide engineering assistance during construction.

I am very pleased to be a part of your team to do this project. I thank you for this opportunity.

Very truly yours,

J. CAMERON McKERNAN COMPANY

By: J. Cameron McKernan, President

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

By FAX: 45 63 31 32 61

File No. P97-10
March 19, 1997

Christian Arndal Nielsen
Tar Tech International A/S
Avernakke
DK-5800 Nyborg
Denmark

Subject: KOPPERS INDUSTRIES
Portland, Oregon U. S. A. Facility
Pitch Ship Unloading

Dear Mr. Nielsen,

It was my pleasure to meet with you and your associate during our meeting with Jim Dietz and other KOPPERS personnel in Portland last week.

I am sending this to confirm that you will be sending detail information for the ship/shore piping connection after you discuss this interface with Gearbulk. I need this information to do the pier arrangement. I also need to know the pipe size and heat trace arrangement. A typical cross section showing the pipe, hot oil heat trace, and insulation would help me plan the pipe supports and walkway access requirements.

I would appreciate receiving all of this information as soon as it is available.

If you want, you may FAX me at the number shown. You may also send e-mail to

canita@teleport.com

I look forward to obtaining your input. Thank you.

Very truly yours,

J. CAMERON McKERNAN COMPANY

By: J. Cameron McKernan

J. Cameron McKernan, President

cc: KOPPERS INDUSTRIES (James T. Dietz)

J. CAMERON McKERNAN

Engineer - Naval Architect

1208 S.E. 7th Avenue • Portland, Oregon 97214 • (503) 232-7211 • FAX (503) 232-7658

File No. P92-34
November 17, 1992

M. Sayeed Sultan,
Project Manager
K-250
Koppers Industries Inc.
436 Seventh Avenue
Pittsburgh, Pennsylvania 15219-1800

COPY

Subject: Proposed Portland Ship Dock and Unloading System
Permits for Construction

Dear Mr. Sultan,

I am writing this letter to outline the local permit requirements for construction of your proposed ship unloading facility. This is written to confirm our discussion in Portland last week.

The two principal regulatory requirements are the U. S. Army Corps of Engineers Permit to Perform Work in the Navigable Waters and the City of Portland Land Use Review. I attach copies of the application forms with this letter. Other permits will be required. I discuss each of the local regulatory agencies as follows:

#1A CORPS OF ENGINEERS ~90 DAY

A Corps of Engineers permit is required to do any work in the navigable waters. Most of the work we are concerned with is going to be in the navigable waters. The permit application requires small scale site plans that describe the project. A list of the owners of adjacent properties is to be included. Also required are a brief verbal description of the project and its intended use. The permit application is fairly simple. The processing time is variable. The Corps will have an internal review and then publish a Public Notice. There is time in the process for the public and the neighbors to review the project and if desired comment on it. Concurrently the Corps circulates copies of the application to other Federal agencies such as Fish and Wildlife, Environmental Protection, and others for review, comment, and approval. The overall time for this process is in the order of 90 days minimum. If there is any controversy about the project, which I don't anticipate on this project, public hearings can be held and the time for review, decision making and issuance of the permit could take longer.

Cont'd . . .

File No. P92-34
November 17, 1992

COPY

OREGON DIVISION OF STATE LANDS ~90DAY

This agency is the State of Oregon Administrative Agency for managing Oregon State properties including the lands along the river banks that the State claims up to the high water mark. The State uses the same application as the Corp of Engineers Application. The State will circulate the application to other State Agencies that may have an interest in this project such as the Department of Environmental Quality, Department of Fish and Wildlife and others. This application also serves as your request for leasing the state land below the high water line that will be occupied by the pier. The application for this project should be processed routinely because the project does not require landfill or loss of wetlands.

#1 CITY OF PORTLAND, BUREAU OF PLANNING ~ 90 DAYS

In accordance with state law, the City of Portland will conduct a comprehensive Land Use Review to ensure the project is permitted at the proposed location. The property is zoned industrial and is within the Willamette Greenway Area. The Greenway Review requires demonstration of the "water dependent" nature of the project. A Greenway Review Site Plan and a Landscaping Plan for the Greenway Set Back are required to be submitted with the Application. The Greenway Set Back is a strip 25 feet wide at the top of the river bank. The set back area is to be landscaped with "natural" vegetation. Because this project is water dependent and will not require amendments to or variances from the City's Land Use Plan (Zoning), I anticipate a routine Type II Review Process. If there are no comments requiring public hearings, the process takes about 60 days after submittal.

CITY OF PORTLAND, BUREAU OF BUILDINGS ~ 45 DAYS LEASE COMPLETED

The Bureau of Buildings issues Building, Plumbing, and Electrical Permits. Detail plans and supporting engineering calculations must be submitted with the permit applications. The building permit application cannot be submitted until after the Land Use Greenway Review is completed and approved. The City usually issues the building permits within 45 days of the application. The Review may sometimes take longer depending on the Bureau of Buildings work load.

Cont'd . . .

File No. P92-34
November 17, 1992

COPY

OTHER AGENCIES

Generally, permits from other agencies are not required until the project goes into operation. Some of the permits are briefly described:

Oregon State Department of Environmental Quality

X * Dust collector discharge requires a Minimal Source Air Contaminant Discharge Permit.

X * Cooling or waste water discharge into the River requires a National Pollutant Discharge Elimination System Waste Discharge Permit.

United States Coast Guard

* A Certificate of Adequacy for Reception Facilities for Oily Waste Discharge is required. The application for this Certificate will show that the facility has a procedure for permitting vessels to discharge bilge water and other slops without discharging into the River. Contractors approved by the Coast Guard are available to provide this service.

* A Certificate of Adequacy for discharge of garbage and other waste is required. The application for this Certificate will show that disposal of ship waste originating from foreign ports can be properly handled. The Port of Portland may be contracted to remove such waste.

Other minor permits may also be required such as crane certification and pressure vessel permits.

Generally, the permit process should proceed smoothly. the key to success is to submit complete applications giving all the information required by the agency.

Cont'd . . .

File No. P92-34
November 17, 1992

COPY

Agency review of the applications takes time. The most usual problem is time, not technical. Usually the project owner wants to start construction before the required permits are issued. It is almost impossible to expedite any of the agencies. The permit applications should be submitted well in advance of the desired construction start date. I would allow at least 6 months for the permit process. Six months would allow sufficient time for preparation and submittal of the applications and agency review and approval of the project.

Very truly yours,

J. Cameron McKernan

Enclosures:
* Corps of Engineers and State of Oregon Permit Application Forms
* City of Portland, Bureau of Planning Land Use Review (Greenway) Application Forms

cc: John Oxford

KOPPERS INDUSTRIES

ENVIRONMENTAL SERVICES
INTEROFFICE CORRESPONDENCE

Send To:	R. D. Collins	**From:**	W. E. Swearingen
Location:	K-1700	**Location:**	K-1800
Subject:	Portland Liquid Pitch Unloading Dock	**Date:**	November 21, 1997

This project consists of the installation of three new tanks, modification of an existing pier, and the installation of a new ten inch heated pipeline between the pier and the new tanks. The new pipeline will be approximately 1800 feet long with approximately 350 feet of the line being routed over the Willamette River. The pipeline will be constructed in a manner that minimizes the number of welded seams and flanged connections on the section of line spanning the river. The line must be heated to ensure trouble free transfer of liquid pitch from the ship to the shore tanks. The current engineering specifications call for the use of hot oil tracing on the entire length of the transfer line. Attached is a site plan showing the proposed installation.

I believe that the risk of a spill into the river from the pipeline can be minimized to the extent practicable through the elimination of flanged joints and x-ray of strategic welded joints wherever possible. Standard Coast Guard rules require a quick closing valve on the pipeline. In case of a line rupture or some other spill event impacting the river, one of the "panic" buttons located on the pier or on the shore is used to close the valve in a matter of a few seconds. Since the current design employs the use of a hot oil tracing. perhaps the tracing should be fitted with quick closing valves also.

In the event of a spill of the hot liquid pitch into the river, I can only envision three scenarios:

- ☹ A "spray" of hot pitch that solidifies in mid air and forms strings of spaghetti that floats on the surface of the water. This can be contained by booming.

- ☹ A "medium" spill that results in the formation of large "pencils" that will sink to the bottom of the river. This should not result in significant harm to the environment and not very much can be done about it once the pitch hits the water. Large chunks of solidified pitch will not travel far and can be easily recovered by diver assisted dredging without processing a lot of river water.

- ☹ A "heavy" spill that results in foaming of the pitch into large "pitch balls". These balls can either float like icebergs or sink to the bottom. Booming would contain the floaters and the pitch could be recovered. Sinkers would have to be dredged.

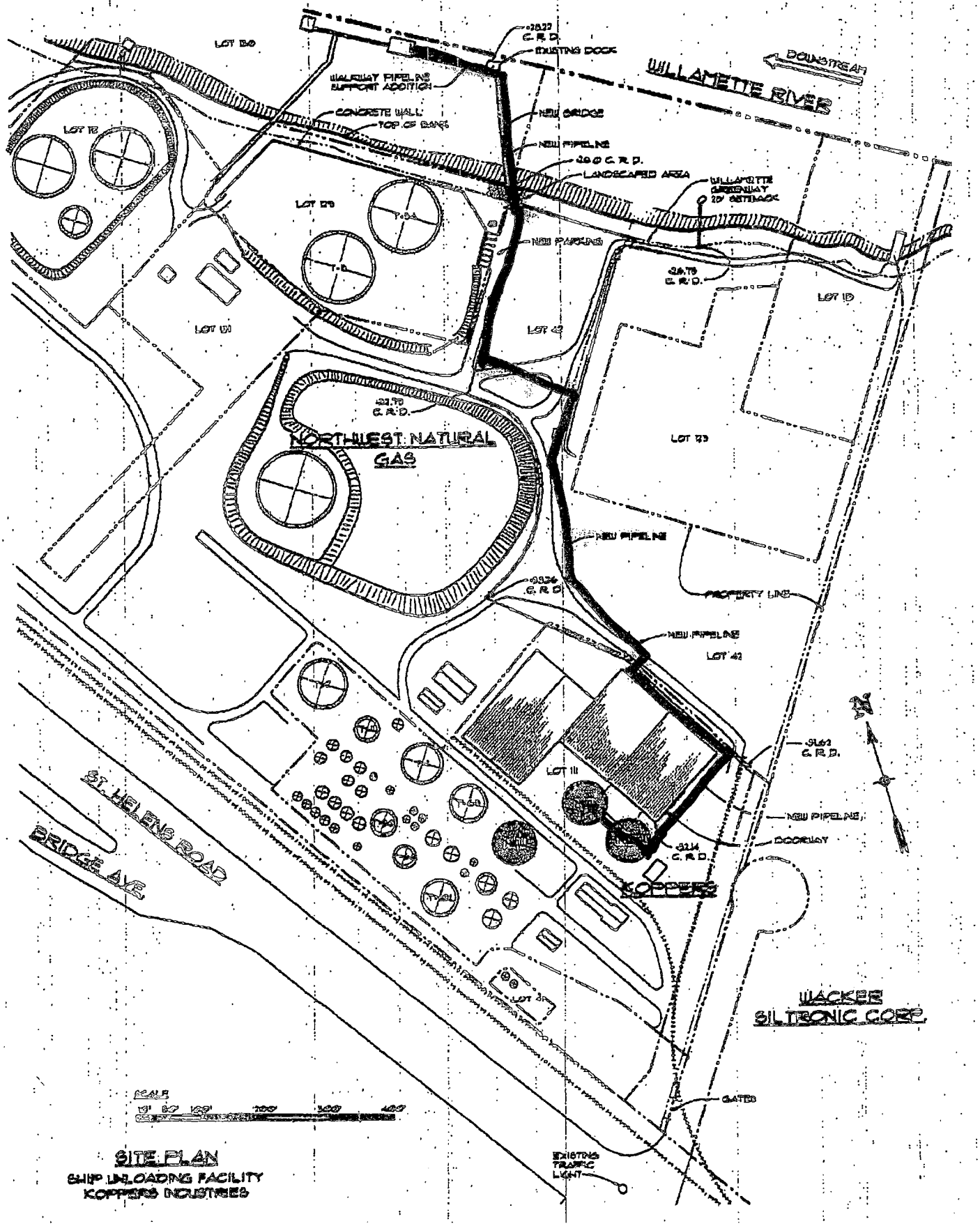
The pier that will be used for unloading the liquid pitch is currently managed by Pacific Northern Oil Company. Commodities such a Bunker C oil, distillate oils, and used oils are transferred between marine vessels and shore tanks operated by Pacific Northern. Oils are much more problematic than many other types of materials when spilled into the waterways. Because of the nature of these commodities, Pacific Northern maintains a boat and a supply of booms to respond to spills. I believe that this is the only response equipment needed for KII's materials.

There is a good working relationship between Pacific Northern and KII. A rental agreement for Pacific Norther's use of the existing KII pipeline for loading their tank cars is already in place. Perhaps a reciprocal agreement can be made between KII and Pacific Northern whereby costs can be minimized for both parties.

More sophisticated prevention techniques could probably be employed, but at much greater costs and very little payback. There will always be a certain amount of risk associated with transferring materials over a waterway. We must decide if the increased profit from the new business is worth the modest increase in risk.

W. E. Swearingen

cc: W. W. Turner; K-1600
A. S. Kamerer; Portland
J. T. Dietz; HTC
S. T. Smith; K-1800



SITE PLAN
SHIP UNLOADING FACILITY
KOPPERS INDUSTRIES

Steve,

Thanks for your comments. I will try to answer some of the questions now but will forward this e-mail to TarTech for any additional comments. I thought Bill had a flowsheet of the process but I will mail you a copy directly.

1. Emergency Shutoff Valves

   A) Pitch Service - When there is more than one tank there will be automated valves to direct the flow. I think your primary concern is when the pitch line-up is made and if the full line backflows into the ship's hold. This may happen in a pump shutdown. The ship would be immediately aware of this, but we should explore the consequences. A pressure switch connected to an automated valve is an option. A check valve won't work but we might automate the dock valve.

   B) Hot Oil Service - I failed to mention that we had planned to install differential oil flow meters on the line leading to the dock with automated shutoff should any difference in flow of oil be detected.

2. Contained Pipe - Any scheme that adds connections to the pipe, e.g, double wall, would be a source of error in pipe stress calculation because of increase difficulty. I want to avoid this like the plague.

3. Secondary Containment - Certainly, with a large cost increase, we could trough under all the piping over the waterway. Amos would have to check and drain the trough though and this seems impractical. I would sooner concentrate on better sealing and heavier design of an insulation cover that might have a designated drip point. This gives us something to think about.

4. Ship Movement - I don't think with the training on ship that this can happen and I bet there are safeties against the mooring winches from moving with valves open. We can, of course, pose this question.

I think all of these issues would come up during a HAZOP study.

Thanks again,

Jim

---------- Reply Separator ----------

Subject: Re[2]: Portland Terminal Pitch Unloading
Author: Steve Smith at PITT
Date: 11/12/97 1:01 PM

Jim,

I am pleased and not surprised to see that you are well ahead of me.

I offer the following questions or suggestions for consideration.

What emergency type valves can be installed on the land side to automatically shut off flow in the case of a break over the water? If we will only be unloading, check valves could prevent backflow from piping on land. Low pressure shut-offs are used in some situations.

Does double wall pipe within a pipe system offer significant benefit? Or does it add counterproductive complication?

Can or should provision for secondary containment be made for the whole pipe system or for particular parts of it? Your plan seems well developed to prevent a pipe failure in the first place, but what plans are in place to minimize the impact if such a failure could happen anyway.

What equipment can/should be used to address the hazard of the ship moving away while connected?

Thanks for allowing me this opportunity to question.

Steve.

Reply Separator

Subject: Re: Portland Terminal Pitch Unloading
Author: JIM DIETZ at TECHCTR
Date: 11/10/97 2:10 PM

Steve,

The idea of spill prevention for this project has of course been my concern as well from the beginning, however, we must deal with the risk that any water operation presents. Other than local environmental sensitivity, I am not sure why we should treat this installation any different than Follansbee's or Stickney's barge facilities.

Having said that, it was my intent to approach the piping design as follows:

1. Have the piping design performed and thermally analyzed for stress by an Oregon registered marine/mechanical engineer. This includes a review of all marine or local code requirements. I believe are greatest risk to be the thermal cycling of the hot oil piping and the maintenance required.

2. Specify that all process piping within 100 feet of the waterway be 100% x-rayed at the joints.

3. The hot oil piping design will include provision for no fittings to be over the water.

4. Request both TarTech and Koppers Australia to review the designs and specifications.

For this kind of project, we would of course perform a HAZOP analysis but we have not discussed, nor been advised by an agency of, the need for a quantitative risk assessment.

While we are not proceeding with this project at this time because of required further business developement, I will make some inquiries

with regards to inspection requirements, maintenance instructions or maintenance/construction personnel qualifications by agencies such as the Coast Guard.

Please give me your thoughts on this approach.

Jim

Reply Separator

Subject: Portland Terminal Pitch Unloading
Author: Steve Smith at PITT
Date: 11/6/97 5:23 PM

Jim,

Based on very limited understanding of work planned at Portland to unload pitch from ocean vessels, I want to express concern for spill prevention design. A spill into the river would present a serious environmental problem and would be a dissaster to KII. I would like to discuss with you design standards included to minimize to the maximum extent the potential for and severity of any spill.

Since neither Bill nor I are experts in design of such marine facilities, I would like assurance that an expert is involved in review and approval of the design.

Please call at your leasure to discuss.

Steve.

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

RECEIVED
SEP 18 1997

File No. P97-10
June 23, 1997

Planning and Zoning Information
Permit Center, First Floor
1120 SW Fifth Avenue
Portland, Oregon 97204-1966

COPY

Subject: Koppers Industries, Inc.
Portland Pitch Ship Terminal

Enclosures:

* 2 copies of Land Use Review Application Form including the following items:
  - = Site Plan
  - = Supplemental Information for Greenway Review
  - = Aerial Photos of the Site (existing & showing modifications)
  - = Statements Showing How Proposal Meets Greenway Review Approval Criteria
  - = Landscaping Plan and Specifications
* Site Plan 8½" x 11" - 4 copies
* Check in the amount of $1,177.00

Gentlemen:

We submit a Land Use Review Application Form and a check for the required filing fee.

Very truly yours,

J. CAMERON McKERNAN COMPANY
AGENT FOR KOPPERS INDUSTRIES, INC.

By: J. Cameron McKernan
J. Cameron McKernan, President

cc: Koppers Industries, Inc.
(Jim Dietz & Amos Kamerer)

CITY OF PORTLAND
BUREAU OF PLANNING
LAND USE PERMITS
1st FLOOR, PERMIT CENTER
1120 S.W. FIFTH AVENUE
PORTLAND, OR 97204-1966
(503) 823-PLAN (823-7526)

FILE No.: _____ (staff will assign number)

Part A: LAND USE REVIEW APPLICATION FORM

Type II Procedure ☐
Type III Procedure ☐

1. ☐ Adjustment ☐ Design Review ☐ Greenway Review ☐ Zoning Map Amendment
☐ Conditional Use ☐ Environmental Review ☐ Comprehensive Plan Amendment ☐ Other _____

2. Location and address of the property subject to the review:
7540 NW St. Helens Road = Willamette River Mile 6.3
Cross Streets: NW Bridge Avenue

3. Short description of the proposal: Modification of existing marine terminal pier by adding a new pedestrian bridge from shore and widening an existing walkway. Installations of three new 70' diameter by 50' high storage tanks. Installation of a new heated above ground pipe line (24" diameter total) from the existing pier to the new storage tanks.

4. Applicant(s):

Name	Address	Zip Code	Phone No.	Applicant's Interest in Property
Koppers Industries, Inc.	1950 Koppers Bldg 436 7th Avenue Pittsburgh, PA	15219	(503) 286-3681	LEASE HOLDER

5. Owner(s) of the Property:

Name	Address	Zip Code	Phone No.
Northwest Natural Gas Co.	One Pacific Square; 220 NW 2nd Ave. Portland, Oregon	97209	(503) 226-4211
Koppers Industries, Inc.	1950 Koppers Bldg; 436 7th Avenue Pittsburgh, PA	15219	(503) 286-3681

6. Legal Description(s) of the Property:
(Lot, Block and Addition, or Tax Lot, Township and Range)
TL's 42, 111, 129, & 130; Sec 12 & 13, T1N, R1W

7.

Tax Account Number(s):	1/4 Section Map Number(s):	Base Zones:	Overlay Zone(s):	Plan District:
R-96113-0420; R-96112-1110				
R-96112-1111; R-96112-1290	ALL: 2221	ALL: IH	ALL: i	
R-96112-1300				

8. Legal Description(s) of all adjacent Property also owned by the Owner(s) listed above:
(Lot, Block and Addition, or Tax Lot, Township and Range)
TL's 41, 112, 113, 123, & 131; Sec 12 & 13 T1N, R1W

9. For all adjacent Property also owned by the Owners listed above:

Tax Account Numbers:	1/4 Section Map Number(s):	Base Zones:	Overlay Zone(s):	Plan District:
R-9611300410	2321	IH	is	
R-96113-1120; R-96112-1130	BOTH: 2221	BOTH: IH	BOTH: i	
R 96112-1230; R-96112-1310	BOTH: 2221	BOTH: IH	BOTH: i	

10. Acceptance of responsibility: I, applicant submit the attached applicati or a land use review. I understand that I am responsible for accura, of the information submitted. I understand that I am responsible for gaining permission of the owner(s) of the above-cited property to apply for this review. I understand that if the proposal is approved, the approval and any conditions of approval, will be recorded in the County Deed Records on the property. I understand that the City of Portland cannot be held liable if any of these actions are taken without the consent of the owner(s) of the property. Furthermore, I understand that in order to process the review the staff may visit the property. I acknowledge the staff's right to enter the property and to photograph the site as part of this review.

[signature]	A.S. Kamerer	6/20/97
Applicant's Signature	*Applicant's Printed Name*	*Date*

LAND USE REVIEW APPLICATION FEES: When more than one land use review is requested, the Bureau of Planning fee for the most expensive review is charged, plus 1/2 the Bureau of Planning fee for the next two most expensive reviews. The chart below indicates the Bureau of Planning and Hearings Officer fees. Hearings Officer fees are always full fee for additional reviews. Please check the boxes, circle amounts or enter fees as applicable:

ADJUSTMENT REVIEW:	1. Bureau of Planning Fee	2. Hearings Officer Fee
☐ Residential use (only)		NA
☐ Non-residential or mixed use		NA
COMPREHENSIVE PLAN MAP AMENDMENT		
CONDITIONAL USE REVIEW: ☐ Type II Minor		
☐ Type III Major		
DESIGN REVIEW: Construction costs for this project: $ _____ x .003 = _____		
☐ Major	0.003 of construction cost with $3,170 minimum and $15,852 maximum	NA
☐ Minor/A: Includes all minor design reviews not identified in Minor/B (below)	0.003 of construction cost with $2,068 minimum and $3,170 maximum	NA
☐ Minor/B: Proposals for improvements under $5,000, fences, freestanding walls, retaining walls, gates, parking areas of 10,000 sq.ft. or less, awnings, signs, rooftop equipment, colors in Historic Districts, remodels affecting less than 25 ft. or frontage, all Type II residential projects.	0.003 of construction cost with $264 minimum and $2,068 maximum	NA
ENVIRONMENTAL CONSERVATION: ☐ Type II Residential (only)		
☐ Type II Non-residential or mixed use		
☐ Type III Violation		
ENVIRONMENTAL PROTECTION: ☐ Type II		
☐ Type III		
GREENWAY REVIEW : Type II ☐ Residential (only)		
☐ Non-residential or mixed use		
ZONING MAP AMENDMENT		
OTHER REVIEWS (Specify) _____		

Highest Bureau of Planning review fee (from column 1) ..... $ _____

Total of 1/2 Bureau of Planning fees from next highest reviews (from column 1) ..... $ _____

Total Hearings Officer fee (full fee for each review) ..... $ _____

Total land use review fee ..... $ _____

Number of posting signs (if required) [ ] x $5.00 each ..... $ _____

Other ..... $ _____

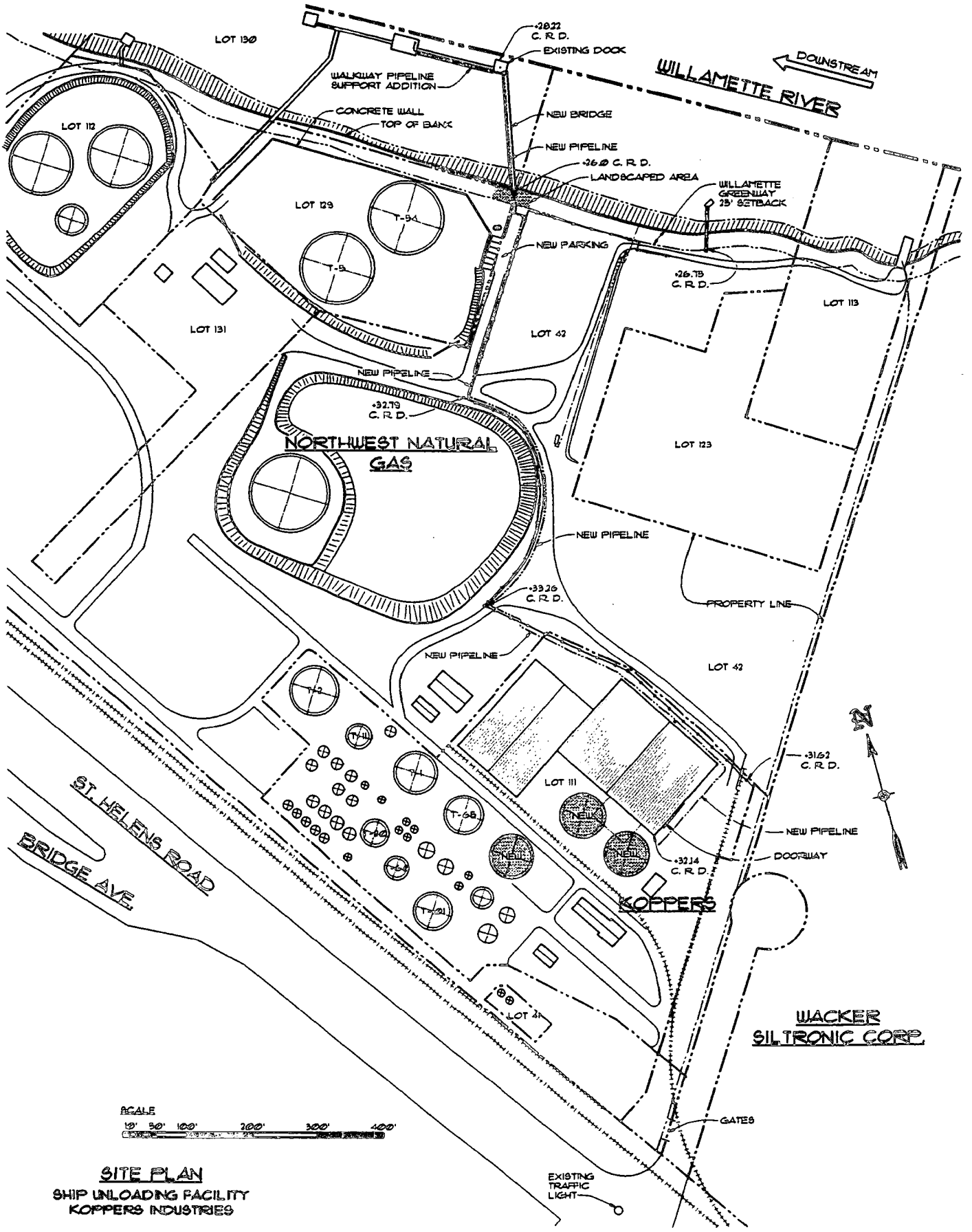
TOTAL Fee charged $ _____

(Below line for office use)

Application received by: _____ Date: _____ Receipt No.: _____

Land Use Review Application Form . Rev. 7-30-96 GTS/Graphics

Koppers018779


LOT 130
+20.22 C. R. D.
EXISTING DOCK
DOWNSTREAM
WILLAMETTE RIVER
WALKWAY PIPELINE SUPPORT ADDITION
CONCRETE WALL
TOP OF BANK
NEW BRIDGE
NEW PIPELINE
+26.0 C. R. D.
LANDSCAPED AREA
WILLAMETTE GREENWAY 25' SETBACK
LOT 112
LOT 129
T-9A
T-9
NEW PARKING
+26.73 C. R. D.
LOT 113
LOT 131
LOT 42
NEW PIPELINE
+32.79 C. R. D.
NORTHWEST NATURAL GAS
LOT 123
NEW PIPELINE
+33.26 C. R. D.
PROPERTY LINE
NEW PIPELINE
LOT 42
T-12
T-11
T-1
T-6B
T-6A
T-5A
T-5B
LOT 111
NEW
NEW
NEW PIPELINE
+31.62 C. R. D.
DOORWAY
+32.14 C. R. D.
KOPPERS
ST. HELENS ROAD
BRIDGE AVE.
LOT 41
WACKER SILTRONIC CORP
GATES
EXISTING TRAFFIC LIGHT
SCALE
0' 50' 100' 200' 300' 400'
SITE PLAN
SHIP UNLOADING FACILITY
KOPPERS INDUSTRIES

Supplemental Information for Greenway Review

Koppers Industries, Inc.
Ship Unloading Pier

1. Fully describe your proposal.

The Koppers Distribution Facility on NW St. Helens Road currently receives dry bulk coal tar pitch and melts the dry bulk to convert it to liquid bulk for distribution to customers.

Dry bulk coal tar pitch is a black pelletized and partly powdery material. Liquid bulk coal tar pitch is a petroleum like liquid that is handled and distributed at a temperature of 375° F to 425° F.

Coal tar pitch is a raw material to the aluminum smelting industry. It is used to produce the electrodes used in this process. For every 10 pounds of aluminum produced, the industry uses 1 pound of coal tar pitch.

The project is to convert the Distribution Facility from dry bulk coal tar pitch processing to all liquid bulk coal tar pitch storage and distribution. The complete conversion is expected to take two or three years.

At the present time, the dry bulk coal tar pitch is received in vessels from Asian countries through the Port of Portland's Terminal 4, near St. Johns. The bulk coal tar pitch is loaded into belly dump hopper trucks by the Stevedore, Hall-Buck Marine Inc., and then moved over the St. Johns Bridge to the Koppers Distribution Facility on St. Helens Road. The new liquid pier operation will eliminate this inefficient, messy trucking operation and replace it with an efficient pipeline and storage tank operation all at one location.

About 40,000 tons of bulk coal tar pitch arrive at the Kopper's Distribution Facility every year. This equates to about 1900 truck loads across the St. Johns Bridge. This movement will be completely eliminated when the conversion to liquid bulk is completed. It is anticipated that 85,000 tons per year will ultimately be processed through the Distribution Facility and thus eliminate another 2150 truck loads across the St. Johns Bridge.

A pier presently used as a marine oil terminal for ships, barges and other vessels will be modified to accommodate ships carrying liquid bulk coal tar pitch. At the present time ships and barges carrying bulk petroleum products are loaded and/or unloaded at this pier. Tugs and other vessels are also refueled at this pier. The pier modification will allow ships with bulk liquid tanks to unload bulk liquid coal tar pitch through a new pipeline to three new storage tanks.

Cont'd . . .

1. Fully describe your proposal. (continued)

The modification project consists of the following elements:

* New pipeline connection for ship on face of existing pier.

* New pipeline from pier to new storage tanks on the existing Koppers Industries Distribution Terminal. This new pipe will run about 3' above the ground surface with raised portions to cross roads, pathways, and building doorways. A few raised inverted U-bend loops will also be installed to allow for pipe thermal expansion. The pipe will be supported off the ground on concrete pads.

  The pipe is nominally 10" in size. Two "hot" oil 1½" heat pipes are attached to the 10" pipe. The entire assembly is encased in insulation. The pipe and insulation is a total of 24" in diameter.

* New access bridge from the existing pier to the shore. The access bridge will be used to carry the pipe line and for access to the ship by pedestrians. Ship supplies and trash will also be moved by handcart on this bridge.

  The new access bridge will be six to eight feet wide and span about 180 feet from the upstream end of the existing pier to the top of the bank. The bridge may be supported on a few pilings or it may be a free standing span.

* Three new storage tanks in the existing Koppers Distribution Facility. These tanks will be steel cylinders 70' in diameter and 50' high. The tanks will be supported on new gravel and concrete foundations.

* Modification and/or removal of existing equipment in the Koppers Distribution Facility. Two unused concrete buildings, an unused distillation tower and peripheral structure and related piping, as well as the existing maintenance shop and service building may have to be removed as needed. The shop and service building would be rebuilt in new locations, if removed. The existing vapor collection and air pollution control system will be modified to accommodate the new tanks. The existing melter tank will be converted to a blending tank. Existing transfer piping will be modified to accommodate the new piping and tanks. Additional pumping and piping will be installed for heating the new tanks and the new pipe line.

Cont'd . . .

1. Fully describe your proposal. (continued)

* New service facilities. Electric power will be extended from the existing Koppers Facility to the pier for area lighting. Roadways will be improved by adding gravel. A new parking area will be established at the end of the access bridge.

* The 25' wide Greenway Landscaping Setback Area at the end of the access bridge will be landscaped. The landscaping will extend 25' on each side of the access bridge.

2. Describe the existing use or activity occurring at the site.

As mentioned previously, the existing pier is used as a petroleum marine terminal for loading/unloading barges and other vessels.

The waterfront site at the shore end of the new access bridge is vacant land. No activity is presently on the site at this location. The attached aerial photograph shows the site.

Inland from the river bank and next to St. Helens Road, the property is a Distribution Terminal for coal tar pitch. Dry bulk coal tar pitch is received by truck and stored inside storage buildings. The bulk pitch is melted/liquified in a heated tank. The liquid coal tar pitch is shipped out to various customers by rail tank cars and highway tank trucks. Customers are mostly aluminum smelters. At the aluminum smelters, the liquid coal tar pitch is used for the making of large electrodes for the aluminum smelting process.

The land between the waterfront and the Coal Tar Pitch Distribution Facility (about 1,000 feet) is presently vacant and unused.

3. Explain how the activities at the site use the river for transportation or for other purposes.

Most coal tar pitch is imported from overseas. This facility will receive incoming coal tar pitch from ships arriving on the Willamette River.

4. Explain the necessity of the riverfront location.

Ships can only transit the river waterway. The only place a ship can be unloaded is at a pier on the riverfront.

Cont'd . . .

5. Describe the condition of the bank. Does it consist of natural bank, rip-rap, dock, loading berth, or pier, for example?

The bank is covered with riprap. The top of the bank is covered with vegetation. Most of the vegetation is "naturalized" plants such as various low shrubs and grasses. Some plants observed were: blackberries, vetch, Scotch broom, plantains, milkweed, clovers, Canadian thistle, common white daisies, cow pea, morning glory, and a number of grass varieties. The vegetation extends from the roadway across the top of the bank down to the "high" water line. There are no existing trees on the bank.

6. Are there structures or activities proposed in the greenway setback area? If so what are they?

a.) End of the pier access bridge.

b.) Pathway from end of access bridge to the parking area. Pathway to be 6' to 8' wide.

c.) Raised pipe line from the end of the access bridge directly across the Greenway Setback. The pipe will be 24" in diameter and about four feet above ground.

d.) A couple of light standards for area lighting.

7. Is a recreational trail identified on the site? If so, how will you be meeting the recreation trail requirements?

No.

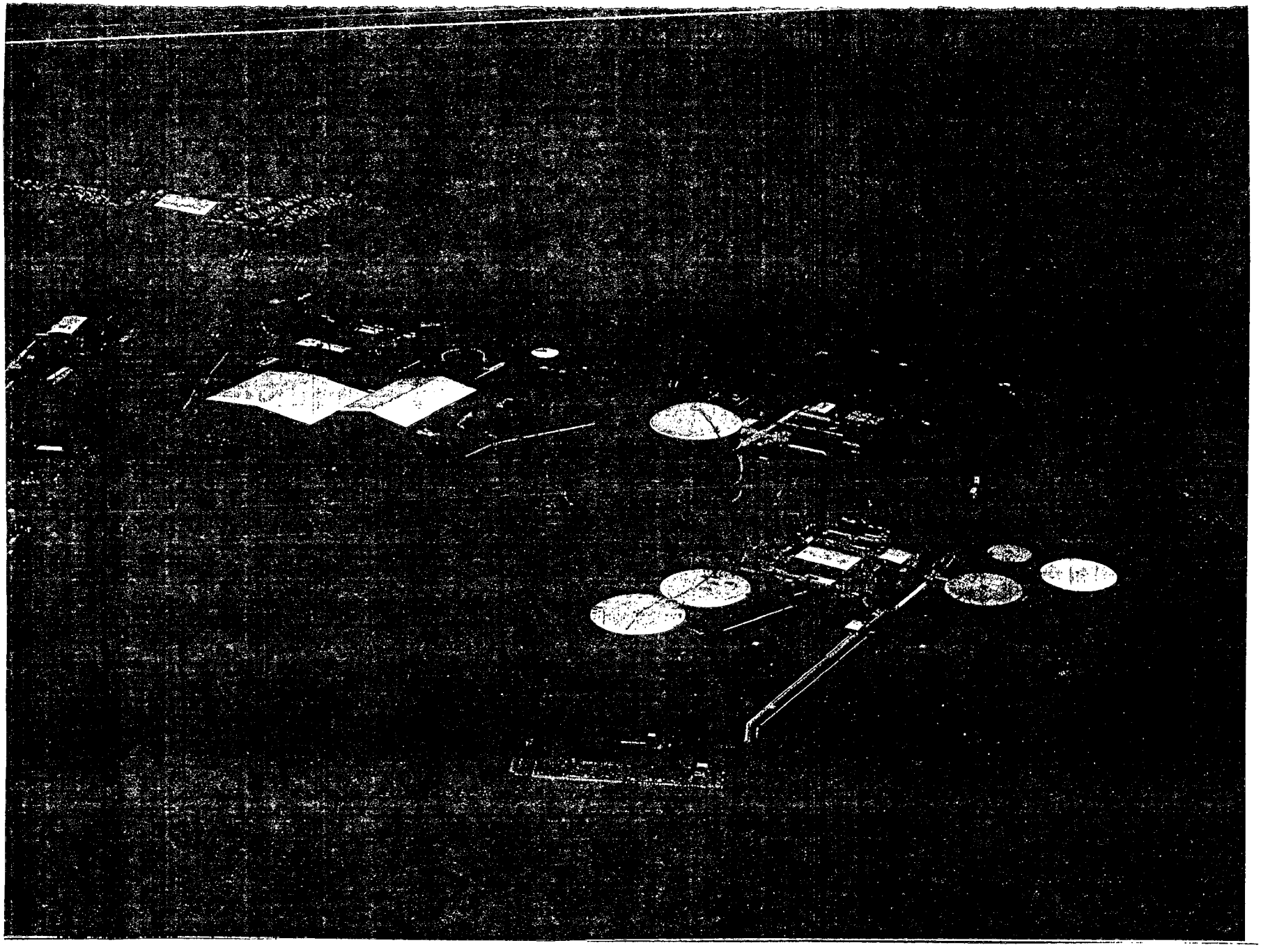
8. Is a public viewpoint or public corridor identified on your site? If so, how much and where would this occur on the site?

No.

9. Does the proposal require any fills or excavation? If so, how much and where would this occur on the site?

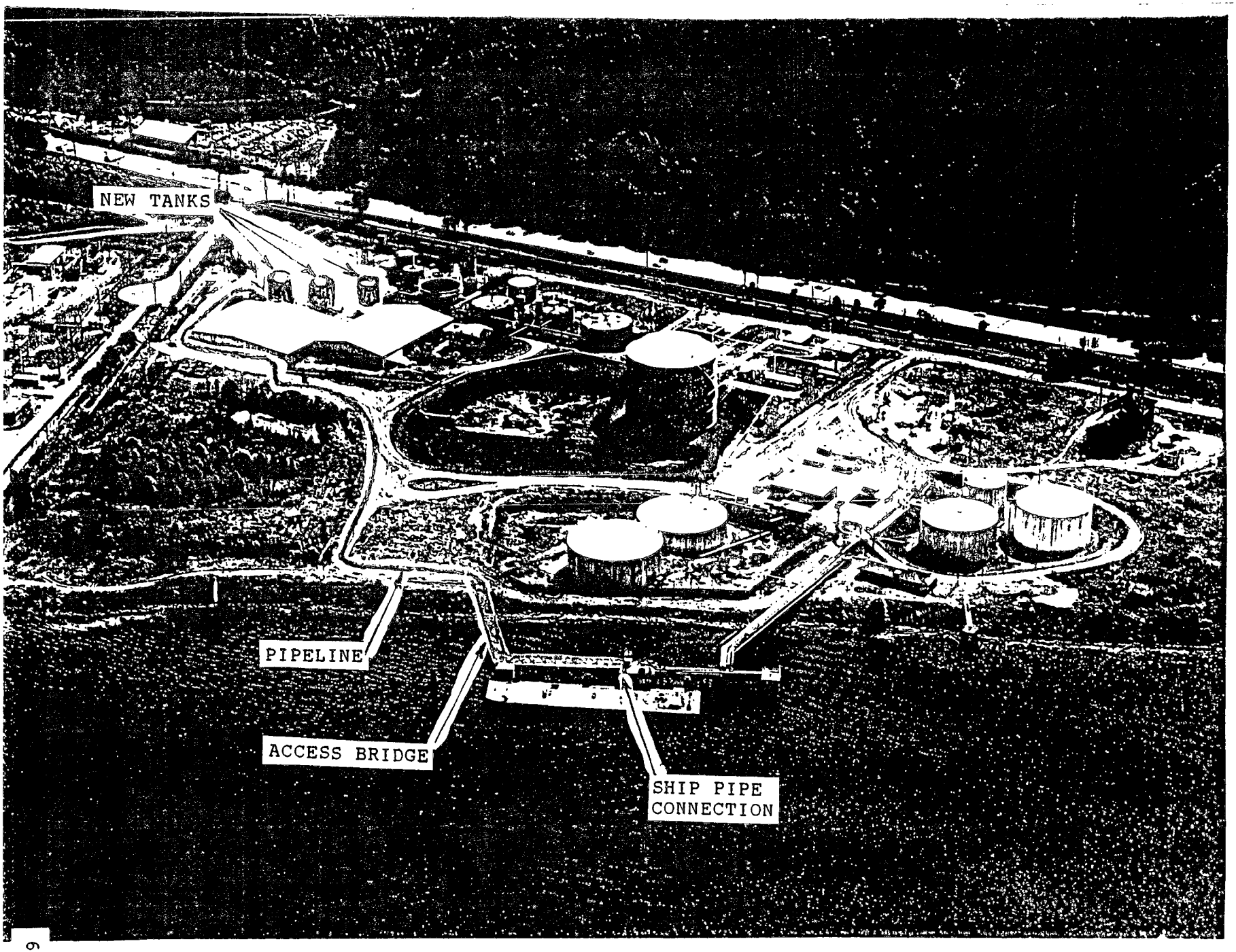
No.

Cont'd . . .



SITE: KOPPERS INDUSTRIES UPPER LEFT;
PACIFIC NORTHERN OIL DOCK IN FOREGROUND

Koppers018785



VIEW MARKED TO SHOW MODIFICATIONS

Koppers018786

Statements Showing How Proposal Meets Greenway Review Approval Criteria

Koppers Industries, Inc.
Ship Pier Modifications,
Bridge and Pipeline

A. "General" The existing pier is operated by Pacific Northern Oil Company as a petroleum marine terminal. Ships, barges and other vessels load or unload liquid petroleum at the pier. Koppers Industries plans to modify the pier for loading or unloading liquid coal tar pitch from ships. Coal tar pitch is a petroleum like liquid which is transported at a temperature of 375° F to 425° F.

A new access bridge will be built from the top of the river bank to the existing pier. This access bridge will be about 6' wide and will provide access for personnel and support for a new 10" (24" diameter with insulation) pipe line from the pier to shore. The pipe line will be run above ground from the shore end of the new bridge to three new storage tanks located in Koppers Industries existing storage and distribution facility on NW St. Helens Road.

This use is "River-Dependent" because it requires access to the river for waterborne transportation by ship or barge.

B. "For all Greenway Reviews" Koppers Industries intends to meet all design guidelines and development standards. We believe this proposal meets all requirements.

C. "River frontage lots in the River Industrial Zone" The proposed modifications and additions are all to support industrial activity and River-Dependent shipping. Non-conforming uses are not planned.

D. "Development within the River Natural Zone" The site for the proposed modifications and additions is not within a River Natural Zone.

E. "Development within 50 feet of the River Natural Zone" The site for the proposed modifications and additions is not within 50' of a River Natural Zone.

F. Development within the Greenway Setback" The new access bridge will end at the top of the bank within the 25' wide Greenway Setback. An 8' wide pathway and an above ground pipe line will cross the setback.

Other than landscaping and some area lighting no other development will take place within the Greenway Setback.

Cont'd . . .

F. continued

At the present time the Greenway Setback area is covered with grasses, weeds, and a blackberry patch. The blackberry patch is right at the bridge landing. The blackberries will be removed in the bridge landing area. The remaining setback area will be landscaped by planting cottonwood tress and native shrubs such as Oregon Grape and Nootka Roses.

The completed landscaping will provide better wildlife habitat than presently exists.

G. "Development riverward of the Greenway Setback" The pier, access bridge and liquid pipe line serve a river dependent activity: waterborne transportation by ship.

G.1. The proposed bridge is over open water. No wetlands are involved. The river bank is presently rip-rapped and basically barren. The modifications on the existing pier are basically above the water surface.

Some new pilings may be required to support the new bridge and pier modifications. The new pilings will provide some additional in water shelter for fish. Fish seem to be attracted to pilings. In general, the proposed modification and additions riverward of the Greenway Setback will not effect biological productivity on the river.

G.2. The river bank in way of the proposed new access bridge is presently protected from wave and wake damage by rock rip-rap. the river bank in way of the rip-rap was not damaged during the recent floods.

G.3. The proposed modification and additions are all within the outline of the existing pier and mooring dolphins which are shoreward of the navigational harbor line.

G.3.a. Boat access to adjacent properties is not changed.

G.3.b. Navigational use of the river is unchanged.

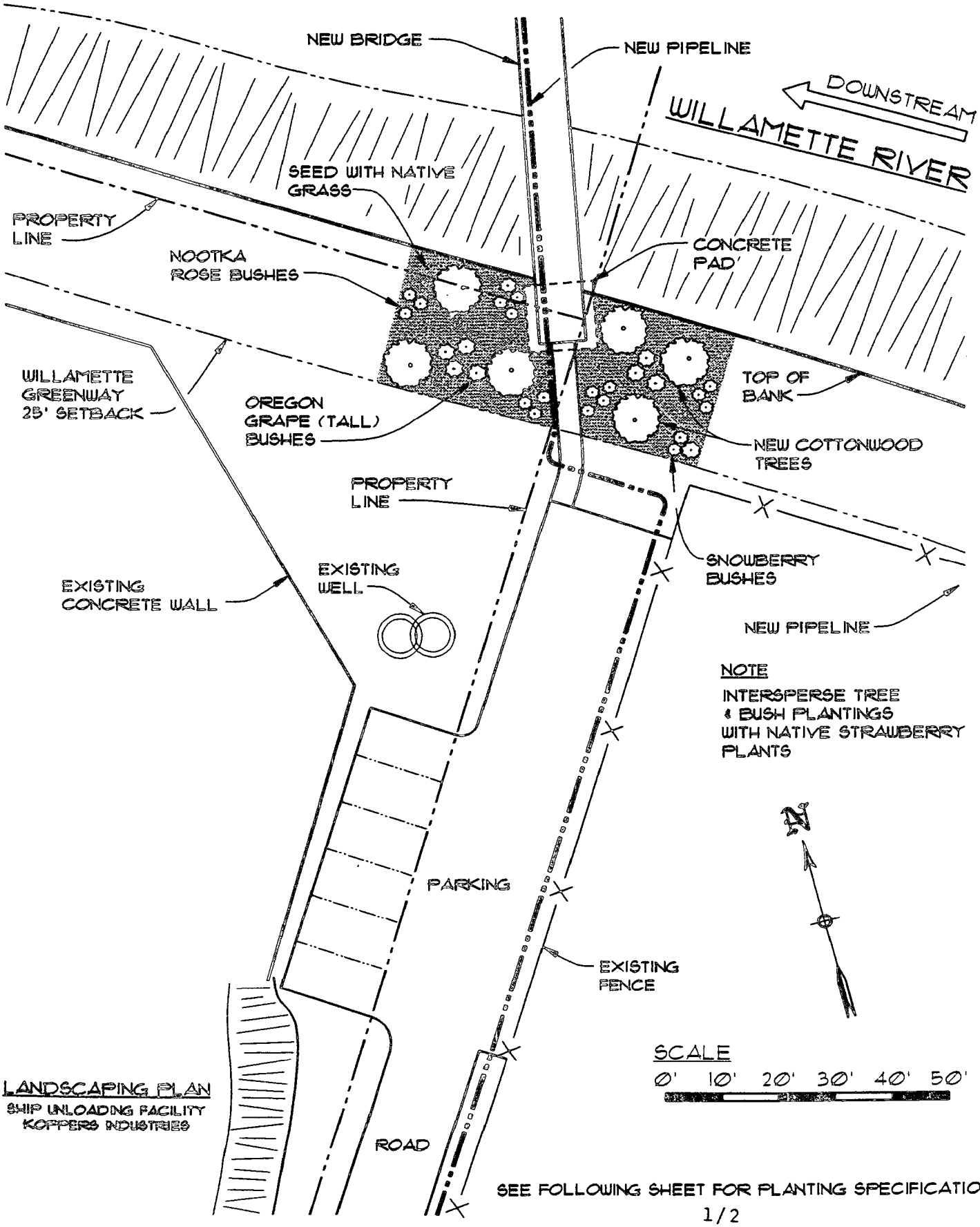
G.3.c. Fishing use of the river is unchanged.

G.3.d. Recreational boating congestions is unchanged.

Cont'd . . .

G. continued

G.4. Beach access is basically unchanged. The new access bridge will be the same level as the existing pier. The bridge may be supported with a few pilings. Except during flood stage small boats and pedestrians will be able to access the beach the same as before the modifications.



LANDSCAPING PLAN
SHIP UNLOADING FACILITY
KOPPERS INDUSTRIES

SEE FOLLOWING SHEET FOR PLANTING SPECIFICATION

1/2

Koppers018790

LANDSCAPING PLAN
SHIP UNLOADING FACILITY
KOPPERS INDUSTRIES

McKERNAN FILE
NO. P97-10
APRIL 1997

PLANTING SPECIFICATION:

1. Remove existing blackberry bushes on the site.

2. After construction is completed dress up the top of the bank, remove the existing weeds and prepare the ground for planting. Cultivate and mulch the 25' Greenway Setback Area.

3. Make the following plantings in this area (group and mass these plantings so that a random, natural look is achieved):

   6 Cotton Wood Trees - minimum of 8' tall, 1&1/2" in diameter

   12 Nootka Rose Bushes

   12 Oregon Grape Bushes - the tall variety

   12 Snowberry Bushes

   Bushes should be clumped in groups of 3 or 4 and interspersed among the trees.

   3 dozen Native Strawberry Plants - scattered about the site in clumps.

   Seed the area between the bushes, trees, and strawberry plants with native grasses.

Koppers018791

KOPPERS INDUSTRIES

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238

Telephone: (412) 826-3970
FAX: (412) 826-3999

May 7, 1997

Northwest Natural Gas Company
220 N.W. Second Avenue
Portland, Oregon 97209

Attention: Ms. Sandra Hart, Manager Environmental and Engineering

Reference: Koppers, Portland Terminal - Tank Foundation Construction

Dear Sandy:

Thank you and Ron Opitz for meeting with Amos Kamerer, Bill Swearingen, Christian Neilsen and myself in your offices last Wednesday, April 30.

I am pleased that Amos, Jack Tuttle of GeoEngineers and you will be meeting with the Oregon DEQ this coming Monday. In preparation for this meeting, please find attached drafts of the final soils report and construction procedures prepared by GeoEngineers. Jack and I have reviewed the anticipated costs for the recommended pipe piling procedure. I see this method as fitting in alright with the overall project costs and can proceed with recommending it from this standpoint.

Also enclosed is the draft of the Pipeline Construction and Environmental Procedures written by Cameron McKernan. My comments are marked on his draft.

I thought that you may want to review and discuss the construction procedure reports and if acceptable transmit it to the DEQ prior to your meeting. For this reason, I will call you tomorrow morning to discuss any comments you may have. Jack and Cameron can then finalize the report and transmit to you directly.

If you have any questions, please do not hesitate to call me at 412/826-3968.

Sincerely,

James T. Dietz, P.E.
Manager of Engineering

Cover only faxed to: 503/273-4815, 2 pages.
Enclosures via express mail.

cc: Mr. Ronald K. Opitz - Northwest Natural Gas Company, Cover only faxed to 503/721-2516, 2 pages. Enclosures by express mail.
Jack Tuttle - GeoEngineers, Inc., Cover only with GA drawing faxed to 503/620-8046, 2 pages.
Cameron McKernan - J. Cameron McKernan Co., Cover only with draft faxed to 503/620-8046, 8 pages.
Amos Kamerer - Koppers Industries, Portland Terminal, by fax, 24 pages.
Bill Swearingen - Koppers Industries, Pittsburgh, by fax, 24 pages.

GeoEngineers

FAX TRANSMITTAL

7504 SW Bridgeport Road
Portland, Oregon 97224
Telephone: (800) 446-4987
Fax: (503) 620-8046

To: Koppers Industries
Pittsburgh, PA

Date: May 7, 1997

File: 5823-001-43

Fax Number: 412/826-3999

Attention: Mr. Jim Dietz

Regarding: Draft letter for distribution to Oregon DEQ

Pages	Date	Description
1	05/07/97	Fax Transmittal
4	05/07/97	Draft letter - Planned Foundation Construction Procedures

Total Pages: 5

Comments: Jim,

Here is the letter (in draft form) for distribution to DEQ and others as appropriate. Please let me know if and to whom this should go if you want it sent out before the meeting next Monday.

Signed: _____

Jack K. Tuttle

May 7, 1997

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, Pennsylvania 15238

Attention: James T. Dietz
Manager of Engineering

"DRAFT"
Planned Foundation Construction Procedures
Proposed Coal Tar Pitch Storage Tanks
7540 Northwest St. Helens Road
Portland, Oregon
File No. 5823-001-43

Construction of foundations for three proposed coal tar pitch storage tanks to be constructed at the subject facility will involve excavations for pile cap mats and the installation of piles to support the tanks with acceptable settlement behavior. In developing our recommendations for an appropriate pile type we have taken into consideration the impacts and constraints which may be imposed by the known subsurface contamination at the site. In the following paragraphs, we present the basis for selection of the steel pipe pile option for support of the tanks and outline the construction procedures which we believe will minimize disturbance to the existing conditions.

Of the three coal tar pitch storage tanks planned, two will be constructed initially and the third, at a later date. The tanks will be 70 feet in diameter and 50 feet high. The total product load in each tank will be 6,200 metric tons. Product will be unloaded at existing wharf facilities on the Willamette River and transported through a new pipeline to the tanks. The scope of our services for the project has been limited to the evaluation of requirements for the support and construction of the tanks.

The tanks will be located in the vicinity of several buildings, process units and tankage. The major portion of the area that will be occupied by the first two tanks to be constructed is an open asphalt concrete paved area. Some building removal and relocation of utilities will also be necessary. The third tank will be located in an area where an old process unit framework exists.

GeoEngineers

7504 SW Bridgeport Road
Portland, Oregon 97224
Telephone: (800) 446-4987
Fax: (503) 620-8046

FAX TRANSMITTAL

To: Koppers Industries, Inc.
Pittsburgh, PA

Date: May 6, 1997

File: 5823-001-43

Fax Number: 412/826-3999

Attention: Mr. Jim Dietz

Regarding: Draft Report - Proposed Coal Tar Pitch Storage Tanks, Portland, OR

Pages	Date	Description
1	05/06/97	Fax Transmittal
17	05/06/97	Draft Report, Geotechnical Engineering Study, Proposed Coal Tar Pitch Storage Tanks, 7540 Northwest St. Helens Road, Portland, Oregon

Total Pages: 18

Comments: Jim,

I am transmitting our report for the tanks in Portland in draft form to get your questions and comments before we put it out as a final. The attached draft is missing a vicinity map which we will prepare and a site plan. I haven't yet received the site plan you said you could fax me. As soon as we get that we can finish the figures. Please review and comment on this draft. Also, let me know if you want anyone else to look at it at this time and let me know what distribution you want for the final report. I am putting together the letter which will go to DEQ for (or at) the meeting next Monday. The bulk of the letter will be the section of the report entitled SITE WORK CONSIDERATIONS with a few introductory comments. I should have that on your desk by tomorrow morning. Please call if you have any questions (503/603-6687).

Signed: _____
Jack K. Tuttle

May 6, 1997

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, Pennsylvania 15238

Attention: James T. Dietz
Manager of Engineering

"DRAFT"
Report
Geotechnical Engineering Study
Proposed Coal Tar Pitch Storage Tanks
7540 Northwest St. Helens Road
Portland, Oregon
File No. 5823-001-43

INTRODUCTION

We are pleased to present our report for the geotechnical engineering study for the proposed coal tar pitch storage tanks to be constructed at your facility at 7540 St. Helens Road in Portland, Oregon. The location of the site with respect to surrounding features, is shown on the Vicinity Map, Figure 1. These services have been provided in accordance with the terms of our proposal dated April 3, 1997. Authorization was provided by your letter dated April 4, 1997.

Three coal tar pitch storage tanks are planned at the approximate locations shown on the Site Plan, Figure 2. We understand that the two tanks which we have marked 1 and 2 will be constructed initially; the third tank (3) will be constructed in the future. The tanks will be 70 feet in diameter and 50 feet high. The total product load in each tank will be 6,200 metric tons. Product will be unloaded at existing wharf facilities on the Willamette River and transported through a new pipeline to the tanks. The scope of this study is limited to the evaluation of requirements for the support and construction of the tanks.

SCOPE

The purpose of these services is to develop recommendations for design, construction and performance of the foundations for the new tanks. The scope of services provided includes the following:

1. Review available subsurface information in our files and obtainable from others for the immediate area to assist in defining subsurface soil and ground water conditions.
2. Explore subsurface soil and ground water conditions by drilling two test borings and conducting two cone probes.
3. Classify the various soil strata encountered in the test borings in accordance with applicable American Society for Testing and Materials (ASTM) standard guidelines.
4. Determine pertinent engineering and physical properties of the foundation soils from the results of laboratory tests. This includes moisture, density, and compressibility tests.
5. Provide geotechnical recommendations for site preparation, support and construction of the tank foundations.
6. Evaluate general requirements for special construction procedures for earthwork involving excavation and handling of on-site soils.
7. Provide recommendations for pile types and design capacity for support of the tanks.
8. Estimate the magnitude and rate of settlement which will be experienced by the tanks under long term, full load conditions.
9. Prepare a written report of our findings, conclusions, and recommendations with supporting field and laboratory data.

SITE CONDITIONS

GENERAL

Soil and groundwater conditions were explored by drilling two borings and completing two cone probes at the locations shown on the Site Plan, Figure 2. Two borings were drilled, one each at the locations of the tanks to be constructed initially. Two cone probes were completed at the planned location of the third (future) tank. Similar soil conditions were encountered in all of the explorations. The boring and probe locations are shown on the Site Plan, Figure 2. The drilling operations were observed by a member of our staff who assisted the drill crew in obtaining representative samples of the soils encountered, classified the soil types and maintained a log of the soil and groundwater conditions. The soils were classified in accordance with the soil classifications system described on Figure 3. The key to the boring log symbols is presented in Figure 4. The boring logs are presented on Figures 5 and 6. The cone probes were completed by Vandehey Soil Explorations under subcontract to GeoEngineers; the results of the probes are presented on Figures 7 and 8.

Laboratory tests on representative samples included moisture and density determinations and one consolidation test. The results of moisture and density determinations are presented adjacent to the appropriate sample notations on the boring logs. Since the decision was made to use pile foundations rather than a shallow foundation system, we are maintaining the results of the consolidation test in our files. These data will be made available if you desire.

SURFACE CONDITIONS

The tanks will be located in the vicinity of several buildings, process units and tankage. The major portion of the area to be occupied by the first two tanks to be constructed is an open asphalt concrete paved area. Some building removal and relocation of utilities will also be necessary. The third tank will be located in an area where an old process unit framework exists. Demolition of facilities in these areas will need to include removal of old foundation elements that could otherwise interfere with installation of the new tank foundations.

SUBSURFACE CONDITIONS

In the area where the first two tanks will be constructed the asphalt concrete paving and gravel base course is underlain by a stratum of fine to medium sand to a depth of about 20 feet. The upper portion of the sand may be hydraulic fill; the lower portion appears to be of alluvial origin. The sand is generally loose and was noted to exude a petroleum-like odor. Saturation with a petroleum-like product was noted in portions of the stratum. No chemical analyses have been made of these soils to characterize the materials in the soil.

A silt to clayey silt deposit underlies the sand to a depth of 35 to 40 feet at the two boring locations. This stratum shows some evidence of contamination in the upper foot or two. This deposit varies from soft to medium stiff and is moderately compressible. The silt stratum is underlain by a loose silty sand to sandy silt layer to a depth of 48 to 57 feet. A layer of soft to medium stiff silt was encountered below the silty sand in boring G-1. The boring was terminated in this stratum. In boring G-2 the drill rig reached practical refusal at a depth of about 53 feet. No samples could be obtained from this layer because of its dense nature. Drilling action indicates the material to be either very dense gravelly soil (Troutdale Formation) or basalt bedrock.

Ground water levels in the borings were observed during drilling at a depth of 6 to 7 feet. The borings were backfilled upon completion of drilling to prevent cross contamination between the soil strata.

As noted above, the sand stratum overlying the silt was found to contain significant levels of contamination which, based on our field screening, appear to be comparable to the levels reported in a nearby monitor well drilled as part of a study for Northwest Natural Gas Company

by others. It was necessary to modify our drilling methods and provide personnel safety equipment because of the severity of vapors from the borings. This will be a consideration for any excavation for the tank foundations.

Soil conditions at the location of the third tank are similar in sequence but with some variations in thickness of the various strata. Beneath the gravel surfacing, sand and silty sand were encountered to a depth of about 15 feet. Below 15 feet a layer of clayey silt to silty clay extends to a depth of about 30 feet. This layer is followed by an interspersed series of layers of sand, sand silt, silty sand and clayey silt to depths of 53 to 56½ feet where refusal was encountered. Because no samples are taken with this method of exploration, field screening for contamination could not be done. However, based on the field screening reports on Boring 23 by Hahn and Associates which is located in the immediate vicinity, vapor levels in this area were at approximately the same levels as found in our borings.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

Settlements of tanks supported on a gravel tank pad with a conventional concrete ringwall foundation are expected to be on the order of 10 to 12 inches or more over the life of the tanks. Based on our discussions with you, settlements of this magnitude are unacceptable. Therefore, pile foundations are recommended to eliminate these settlements. We recommend that the tanks be supported on piles driven to the dense stratum encountered at depths of about 50 to 55 feet in our explorations. Detailed recommendations for pile types and capacities and a discussion of special considerations for earthwork because of the subsurface contamination are presented in the following paragraphs.

Excavation work for construction of the pile-supported mat will require planning with respect to worker safety issues and proper handling and disposal of contaminated soils. Pile installation work will likely require some site monitoring for contaminant vapors which could be generated by the pile driving.

FOUNDATION SUPPORT

We recommend that the tanks be supported on endbearing piles driven to practical refusal in the dense formation which underlies the site at a depth of about 55 to 60 feet. We further recommend that the pile type selected be a driven pile so that no soil is brought to the surface as part of the pile installation. We have examined pile types which would provide satisfactory support with optimum use of the capacity of the pile section. These include steel H-piles, closed ended steel pipe piles and driven grout piles. Each of these pile types, if driven to refusal into the underlying dense stratum, can be designed for near the full structural capacity of the pile

itself. Although our experience indicates that the driven grout piles may be the more economical from the standpoint of pile material and normal installation costs, we recommend that closed end steel pipe piles be used for the reasons given below. The advantages and disadvantages of the three pile types considered are as follows:

Steel H-piles: H-piles could be driven with relative ease to the bearing layer. Also, lengths could be adjusted by cutting or splicing as needed to accommodate any variations in the depth to bearing stratum. However, in order to strengthen the tip to avoid damage to the pile section during hard driving in the bearing layer, we would recommend use of pile tips. The pile tips create a lead pile section that is larger than the basic steel section. When driven, this leaves a zone of loosened material around the pile which could provide a path or paths for vapors to escape to the surface or contamination to migrate downward. Therefore, we recommend against the use of H-piles.

Driven Grout Piles: This pile type offers considerable flexibility in terms of adapting to changes in depth to the bearing stratum. The load carrying capacity of the piles would be somewhat less than for comparable sized steel pile sections. The primary disadvantage relates to installation through the zone of heavily contaminated soils and the need to clean the mandrel between each pile installation to avoid contamination of the deeper layers of soil. During our test drilling, it was necessary to steam clean the drilling equipment for safety reasons and to prevent cross-contamination vertically through the boring profile. We anticipate that it could be a requirement of the Oregon Department of Environmental Quality (DEQ) that the mandrel be steam cleaned after the completion of each pile. The most effective way to do this would appear to be to steam clean it as it is withdrawn from the hole in concert with placement of grout to form the pile. The cleaning operation would generate water containing contaminated residue, this residue would accumulate around the piles and would likely raise the contamination levels enough to require a higher order of protective clothing for workers. The mandrel cleaning would also slow pile installation markedly. Because of overall environmental concerns and the significant challenge with respect to collecting and disposing of the residue from cleaning the mandrel that this type of pile installation would create, we recommend against using driven grout piles.

Closed-end Steel Pipe Piles: We recommend using closed end steel pipe piles with the closure plate on the tip of the pile sized and welded so that there is little or no extension of the closure plate beyond the pipe wall so that the full circumference of the pile will stay in contact with the soil as the pile is driven. In our opinion, this pile type presents the best opportunity to prevent transfer of soil contamination down the soil column or loss of vapors upward around the pile. Selection of a thick enough wall section to compensate for potential pipe corrosion would eliminate the need to fill the piles with concrete providing the section remains watertight after driving.

As noted above, the piles can be designed for capacities limited by the structural capacity of the pile section. For 12-3/4-inch diameter pile we would anticipate the allowable design capacity to be on the order of 75 to 80 tons for long term static loading. For a 14-inch pile the design load would be on the order of 100 to 110 tons. These capacities can be increased by one third when considering seismic-induced loads.

The piles are to be driven to practical refusal on or into the underlying dense stratum which was encountered a depth of 57 feet in Boring G-2. The actual depth to firm bearing may vary by several feet across a tank footprint. Therefore, the contractor must be prepared to splice additional pipe or make cutoffs, as needed. Driving criteria for practical refusal can be defined when the selected pile size and driving hammer are known.

Foundation Settlements: Settlements of pile-supported tanks due to the weight of the tank and applied product loads will be small, primarily the result of elastic compression of the piles. We estimate that the settlement of the tanks supported on piles driven as recommended above will be on the order of one half to one inch. These settlements will take place essentially as loads are applied.

LATERAL LOAD RESISTANCE

Resistance to lateral loads due to seismic activity can be resisted by a combination of passive pressure on the sides of the pile supported mat and the lateral resistance afforded by the piles. Passive pressure on the sides of the mat can be determined using an equivalent fluid density of 300 pounds per cubic foot per foot of depth. This value is based on the backfill placed against the sides of the mat being compacted to a density of at least 95 percent of the maximum dry density as determined by ASTM test procedure D-1557.

The available lateral resistance of the steel pipe piles is, in part, a function of the pile diameter and the wall thickness of the pipe. The recommended lateral loads for the pipe piles are presented in the following table.

Allowable Lateral Resistance*

Pile Diameter (inches)	Wall Thickness (inches)	Allowable Lateral Load (kips)
12-3/4	3/8	15
12-3/4	1/2	17
14	1/2	19

* The above values are based on: 1. fixed head conditions for the piles, 2. a maximum lateral deflection of 1/2-inch, 3. a minimum spacing between adjacent piles of at least 5 pile diameters, and 4. a factor of safety of about 2.5.

LIQUEFACTION POTENTIAL

The loose to medium dense sandy soils which mantle the area will be susceptible to liquefaction during a seismic event. We estimate that potential surface subsidence resulting from a magnitude 8 earthquake with an acceleration of 0.2g could be in the range of 5 to 8 inches depending on the proximity and duration of the event. There is also a potential for lateral spreading of the upper soils toward the river for a comparably sized event. Lateral movements of up to about 3 inches could be experienced.

A relatively small (approximately 4 kips per pile) downdrag load could result from subsidence due to liquefaction. This value is additive to the design loads imposed by the tank and its contents,

Ground subsidence of this magnitude could result in rupture of piping attached to the tanks because of the differential movement which would result between the surface bearing pipe supports and the pile supported tanks. These potential movements should be taken into account in design of the piping connections to the tanks.

SITE WORK CONSIDERATIONS

We understand that Northwest Natural Gas Company and DEQ are presently involved in a process to set the ground rules for remediation and future property utilization. The study conducted for Northwest Natural Gas by Hahn and Associates has revealed considerable contamination in the area of the proposed tanks. The design recommendations presented above for tank foundation support address the issue of installing piles of a type and in a manner which will minimize the potential for disturbance or spread of contaminated materials. Construction of the pile cap mats on which the tank shells will be supported will require excavation and disposal of on-site soils. Therefore, some environmental testing, monitoring, and operational requirements which would not be necessary for work on an uncontaminated site will be required for construction of these tanks.

We understand that it is planned to cut to a depth of about six feet, place a two-foot thick gravel pad from which piles will be driven, install the piles, and then construct a base mat with an approximate thickness of 4 feet. Soils at the planned depth of excavation are expected to be at or above the clean up limit for total petroleum hydrocarbons (TPHs) and may have other volatile compounds which are also classified as hazardous materials. At present, no site-specific analyses of the characteristics of the soils within the depth of excavation planned have been done. We anticipate that this will be required in order to characterize the soils for disposal and define protection requirements for construction workers. Several test pits or shallow borings will be needed to obtain composite samples for analyses of the compounds present in the soil.

If these explorations and analyses show that the contamination is above clean up levels and/or that workers may be exposed to toxic materials or vapors, the contractor will need to prepare a health and safety plan to define the measures which will be taken to minimize worker exposure to hazards and to control the release of vapors to the atmosphere.

One means of reducing vapor emissions from the excavation would be to seal the bottom of the excavation with an impermeable layer of a type which would allow pile driving to proceed without significantly compromising the ability of this seal to successfully contain the vapors. A mechanical barrier such as plastic sheeting could be used; however, we believe this would be susceptible to enough damage so that vapor leakage could be a problem when piles are driven through it. We suggest placing a seal consisting of a sand-bentonite layer. The seal could be constructed by spreading a 4- to 6-inch layer of sand over the bottom of the excavation, spreading a layer of powdered bentonite, blending the sand and bentonite thoroughly by rototilling, blading and compacting it, and thoroughly soaking the mixture to expand the bentonite thus forming an impermeable seal. Following the soaking period, a granular fill working pad would be placed from which the pile driving would be done.

Piles driven through the sand-bentonite layer would displace but should not fracture the seal so that reasonable protection against vapor emissions around the piles would be maintained. Field monitoring should be maintained on a regular basis to record the level of any vapors within the work area and to check for leakage around each pile after. If leakage is detected, the granular fill around the pile could be dug out down to the sealing layer and the sand-bentonite layer compacted against the pile to reestablish the seal.

Once a tank mat is in place, the excavated zone around the mat should be filled with compacted structural fill which contains sufficient fines to form a final closure of the excavated area.

◁ ◇ ▷

DRAFT **May 6, 1997**

With proper planning and execution, we believe that the tank foundations can be constructed with minimal environmental impact.

Yours very truly,

GeoEngineers, Inc.

Jack K. Tuttle, P.E.
Principal

David L. Thielen, P.E.
Associate

JKT:DLT:mln
Document ID: 5823001.r

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SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP SYMBOL	GROUP NAME
COARSE GRAINED SOILS More Than 50% Retained on No. 200 Sieve	GRAVEL More Than 50% of Coarse Fraction Retained on No. 4 Sieve	CLEAN GRAVEL	GW	WELL-GRADED GRAVEL, FINE TO COARSE GRAVEL
			GP	POORLY-GRADED GRAVEL
		GRAVEL WITH FINES	GM	SILTY GRAVEL
			GC	CLAYEY GRAVEL
	SAND More Than 50% of Coarse Fraction Passes No. 4 Sieve	CLEAN SAND	SW	WELL-GRADED SAND, FINE TO COARSE SAND
			SP	POORLY-GRADED SAND
		SAND WITH FINES	SM	SILTY SAND
			SC	CLAYEY SAND
FINE GRAINED SOILS More Than 50% Passes No. 200 Sieve	SILT AND CLAY Liquid Limit Less Than 50	INORGANIC	ML	SILT
			CL	CLAY
		ORGANIC	OL	ORGANIC SILT, ORGANIC CLAY
	SILT AND CLAY Liquid Limit 50 or More	INORGANIC	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
			CH	CLAY OF HIGH PLASTICITY, FAT CLAY
		ORGANIC	OH	ORGANIC CLAY, ORGANIC SILT
HIGHLY ORGANIC SOILS			PT	PEAT

NOTES:

1. Field classification is based on visual examination of soil in general accordance with ASTM D2488-90.
2. Soil classification using laboratory tests is based on ASTM D2487-90.
3. Descriptions of soil density or consistency are based on interpretation of blow count data, visual appearance of soils, and/or test data.

SOIL MOISTURE MODIFIERS:

Dry - Absence of moisture, dusty, dry to the touch

Moist - Damp, but no visible water

Wet - Visible free water or saturated, usually soil is obtained from below water table

GEI 85-85 Rev. 05/93

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SOIL CLASSIFICATION SYSTEM

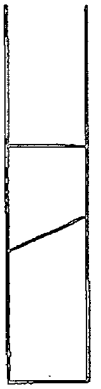
FIGURE 3

G:\ACAD\DETAILS\GTKBR300

LABORATORY TESTS:

AL	Atterberg limits
CP	Compaction
CS	Consolidation
DS	Direct Sheer
GS	Grain - size
%F	Percent fines
HA	Hydrometer analysis
SK	Permeability
SM	Moisture content
MD	Moisture and density
SP	Swelling pressure
TX	Triaxial compression
UC	Unconfiend compression
CA	Chemical analysis

SOIL GRAPH:



SM Soil Group Symbol (See Note 2)

Distinct Contact Between Soil Strata

Gradual or Approximate Location of Change Between Soil Strata

Water Level

Bottom of Boring

BLOW-COUNT/SAMPLE DATA:

Blows required to drive a 2.4-inch I.D. split-barrel sampler 12 inches or other indicated distances using a 300-pound hammer falling 30 inches.

22 Location of relatively undisturbed sample

12 Location of disturbed sample

17 Location of sampling attempt with no recovery

Blows required to drive a 1.5-inch I.D. (SPT) split-barrel sampler 12 inches or other indicated distances using a 140-pound hammer falling 30 inches.

10 Location of sample obtained in general accordance with Standard Penetration Test (ASTM D 1586) procedures

26 Location of SPT sampling attempt with no recovery

"P" indicates sampler pushed with weight of hammer or against weight of drill rig.

P Location of relatively undisturbed sample obtained using a 3-inch-diameter thin-wall sample tube. Sample obtained in general accordance with ASTM D 1587.

Location of grab sample

NOTES:

1. The reader must refer to the discussion in the report text, the Key to Boring Log Symbols and the exploration logs for a proper understanding of subsurface conditions.
2. Soil classification system is summarized in Figure 3.

GEI 121-90

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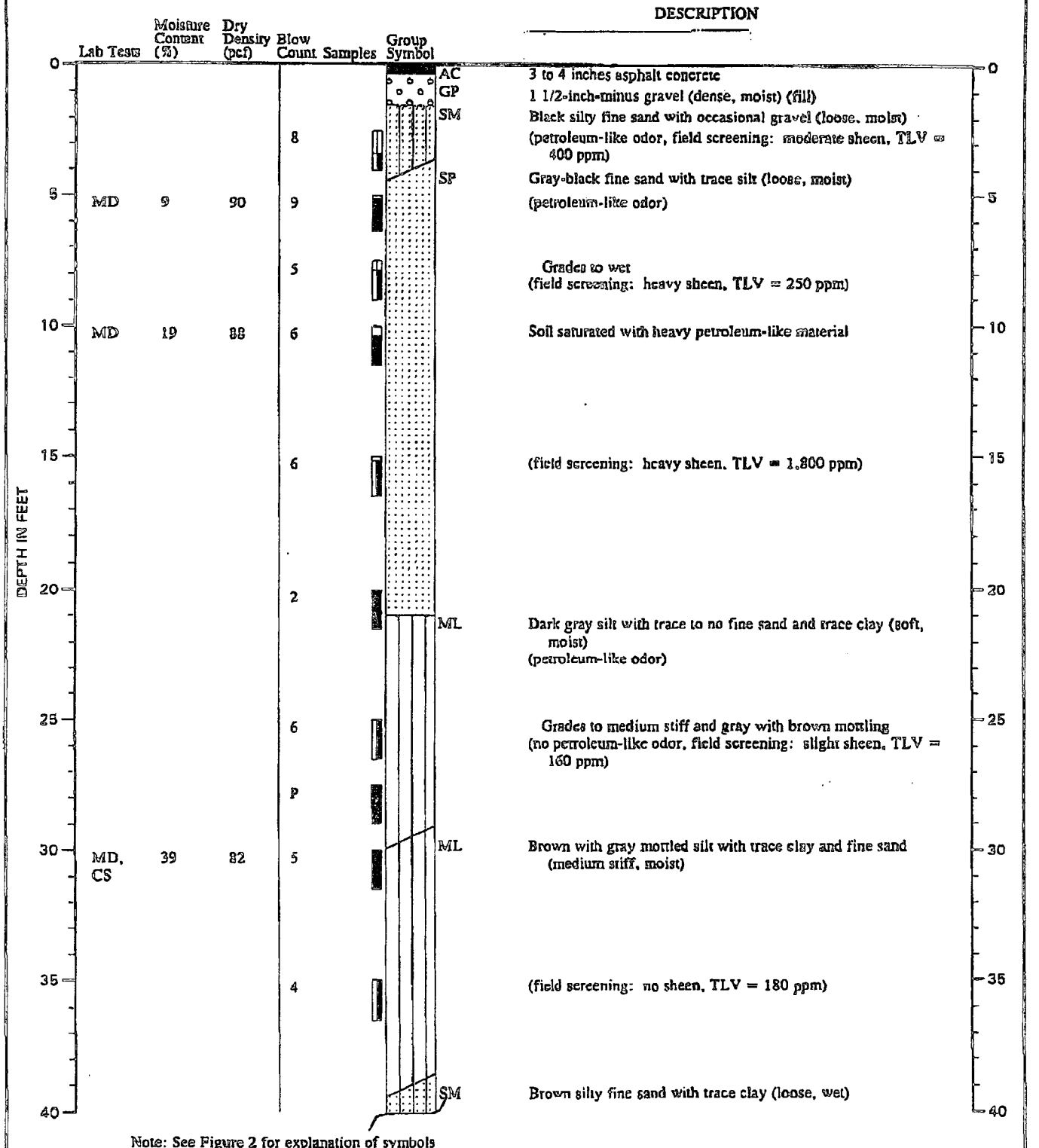
KEY TO BORING LOG SYMBOLS

FIGURE 4

TEST DATA

BORING G-1



Note: See Figure 2 for explanation of symbols

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5823-001-43-2130

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LOG OF BORING

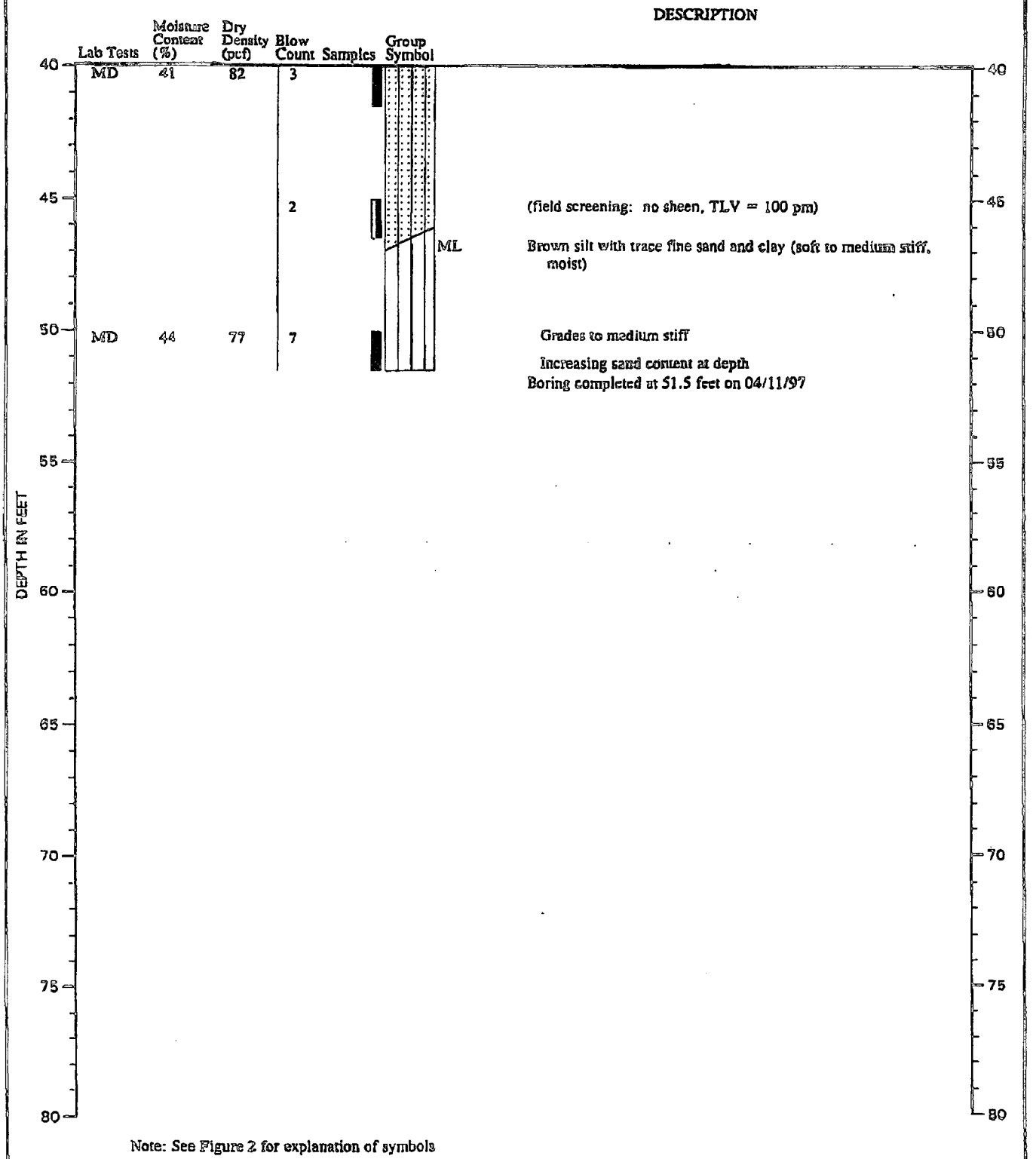
FIGURE 5

TEST DATA

BORING G-1
(Continued)

Depth (ft)	Lab Tests	Moisture Content (%)	Dry Density (pcf)	Blow Count	Samples	Group Symbol	DESCRIPTION
40	MD	41	82	3			
45				2			(field screening: no sheen, TLV = 100 pm)
						ML	Brown silt with trace fine sand and clay (soft to medium stiff, moist)
50	MD	44	77	7			Grades to medium stiff
							Increasing sand content at depth
							Boring completed at 51.5 feet on 04/11/97

DEPTH IN FEET: 40, 45, 50, 55, 60, 65, 70, 75, 80



Note: See Figure 2 for explanation of symbols

DLT:9/8/8:MLN 5/6/97

5823-001-43-2130

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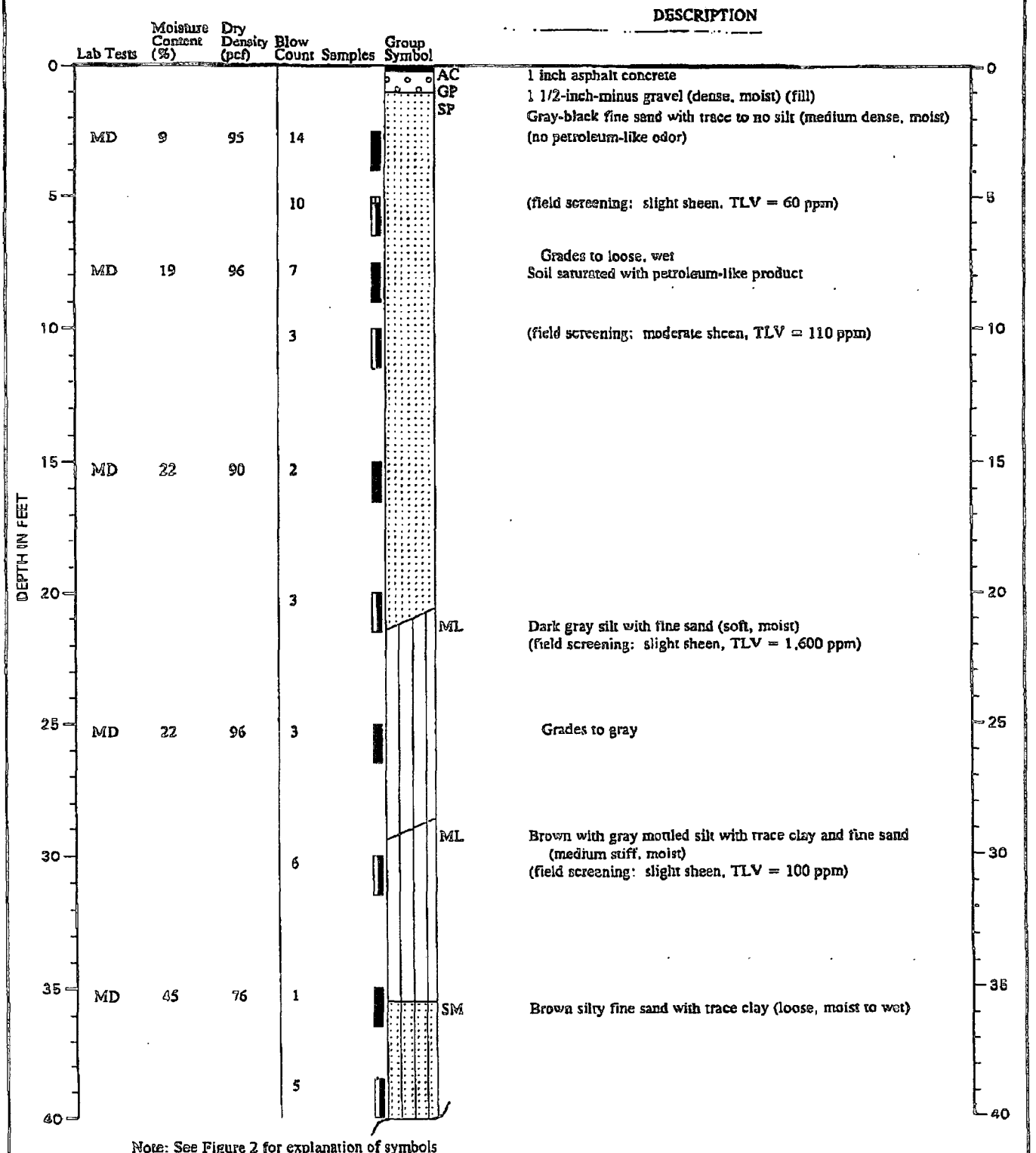
LOG OF BORING

FIGURE 5

TEST DATA

BORING G-2



Note: See Figure 2 for explanation of symbols

DLT:MMB:MLN 5/6/97

5823-001-43-2130

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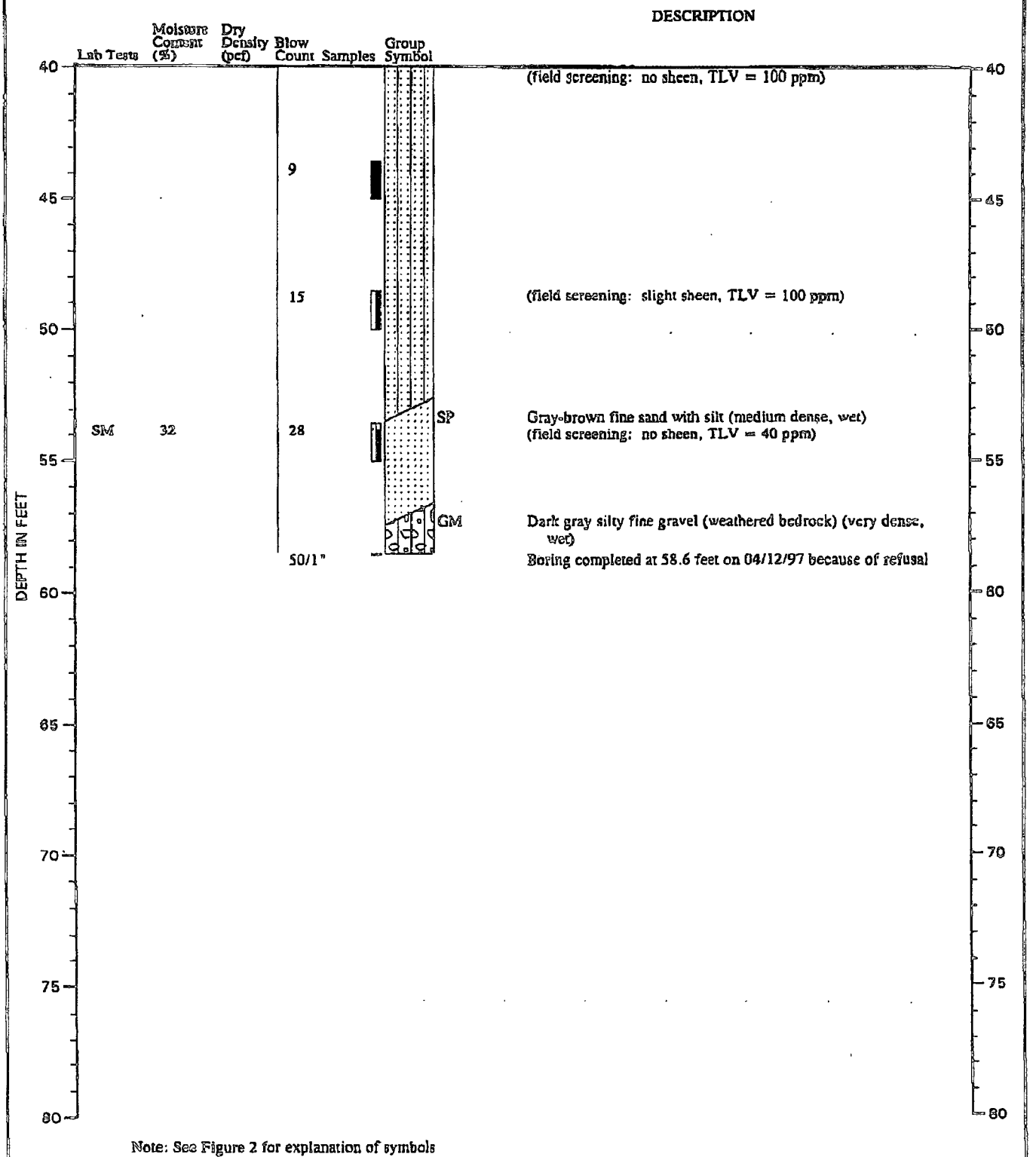
LOG OF BORING

FIGURE 6

TEST DATA

BORING G-2
(Continued)



Note: See Figure 2 for explanation of symbols

DLT:MMB:MLN 5/6/97

5823-001-03-2130

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LOG OF BORING

FIGURE 6

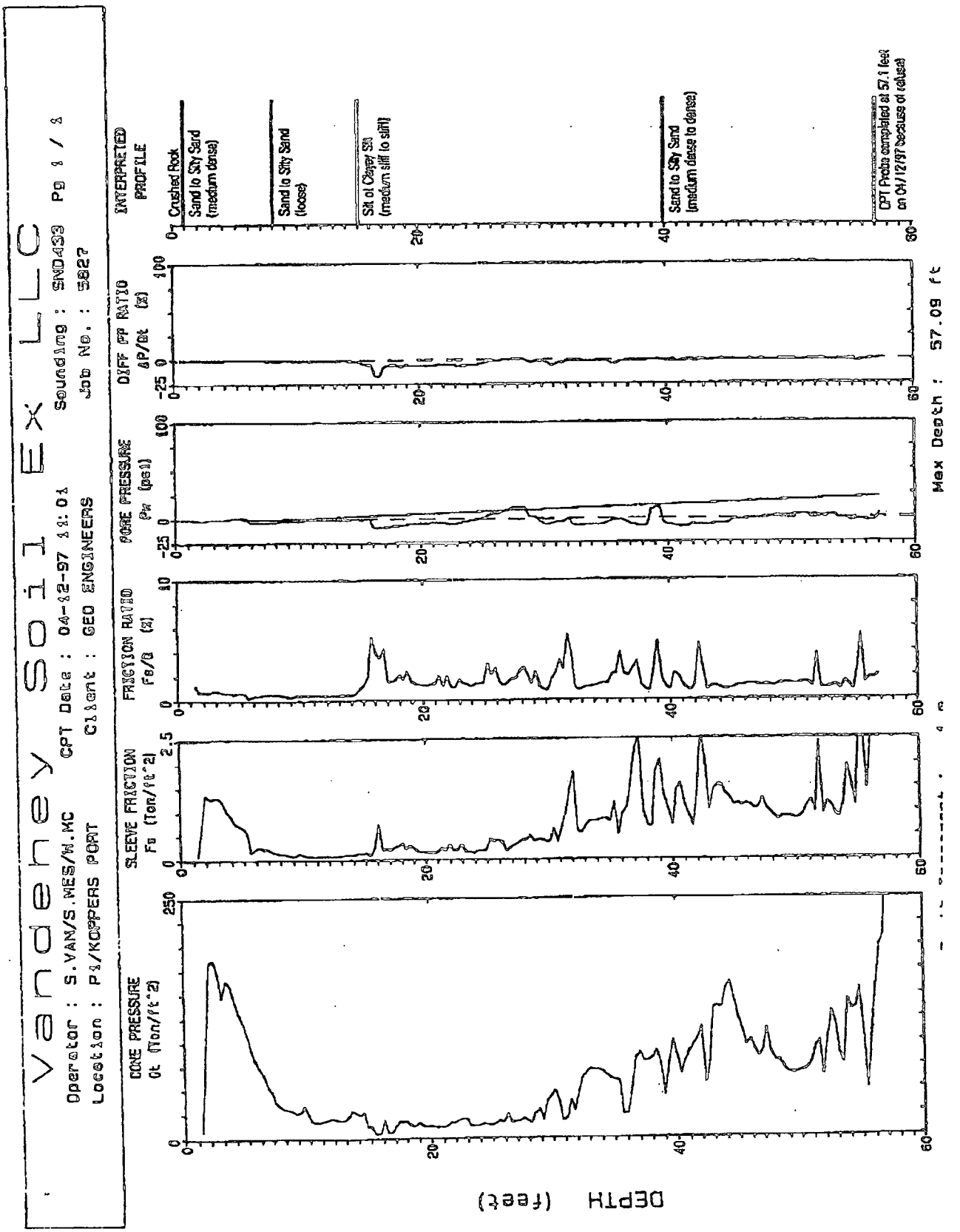
Vanoeney Soil Ex LLC
Operator : S.VAN/S.MES/M.MC
Location : P1/KOPPERS PORT
CPT Data : 04-12-97 11:04
Client : GEO ENGINEERS
Sounding : SND433 Pg 1 / 1
Job No. : 3827
INTERPRETED PROFILE
Crushed Rock
Sand to Silty Sand (medium dense)
Sand to Silty Sand (loose)
Silt of Clayey Silt (medium stiff to stiff)
Sand to Silty Sand (medium dense to dense)
CPT Probe completed at 57.1 feet on 04/12/97 because of refusal
DIFF PP RATIO ΔP/Qt (%)
PORE PRESSURE Pw (psi)
FRICTION RATIO Fs/Q (%)
SLEEVE FRICTION Fs (Ton/ft^2)
CONE PRESSURE Qt (Ton/ft^2)
Max Depth : 57.09 ft
DEPTH (feet)

FIGURE 7

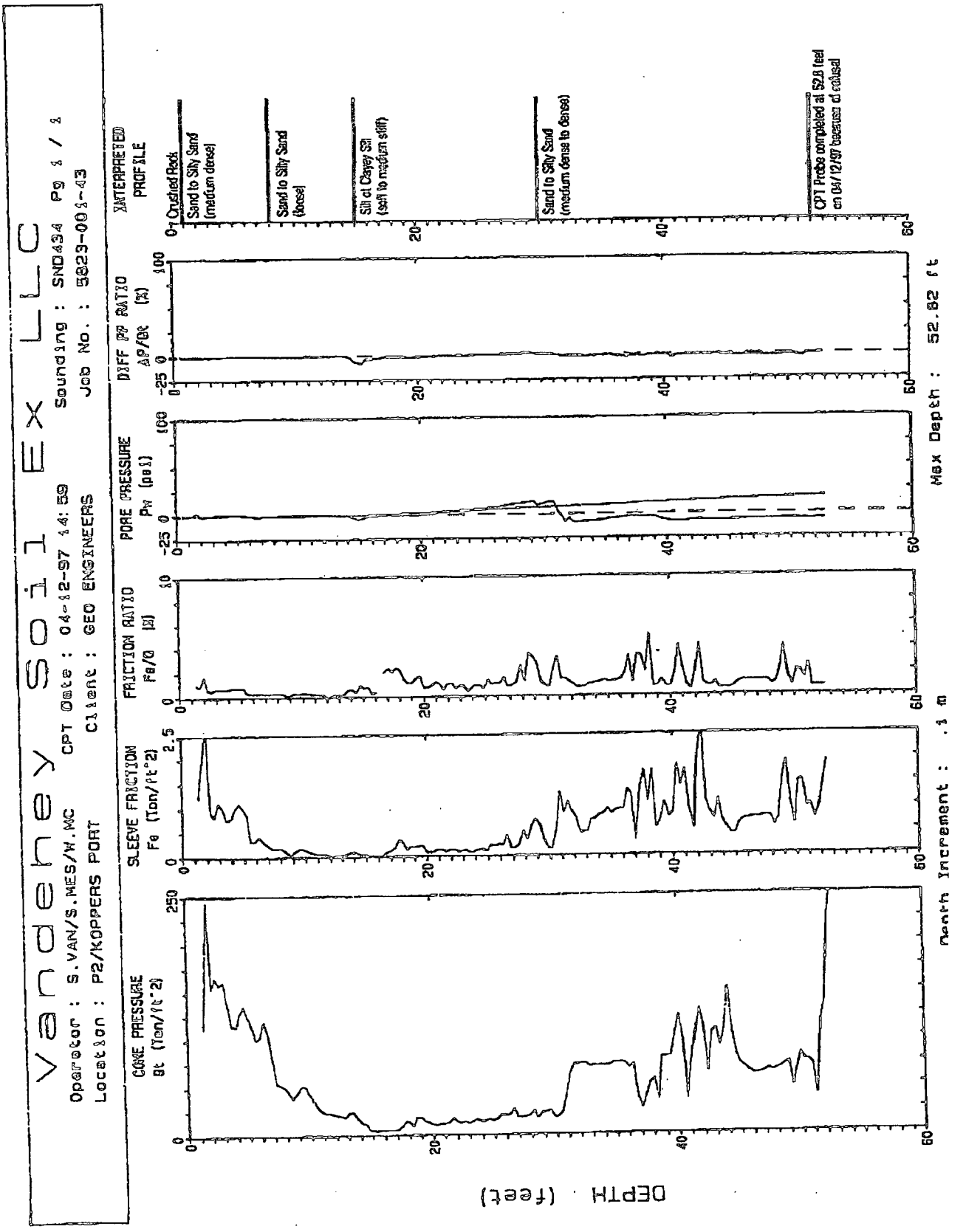
Vandenberg Soil Ex LLC
Operator : S.VAN/S.MES/W.MC
CPT Date : 04-12-97 14:59
Sounding : SND434 Pg 1 / 1
Location : P2/KOPPERS PORT
Client : GEO ENGINEERS
Job No. : 5823-004-43
INTERPRETED PROFILE
Crushed Rock
Sand to Silty Sand (medium dense)
Sand to Silty Sand (loose)
Silt of Clayey Silt (soft to medium stiff)
Sand to Silty Sand (medium dense to dense)
CPT Probe completed at 52.8 feet on 04/12/97 because of refusal
DIFF PP RATIO ΔP/Qt (%)
PORE PRESSURE Pw (psi)
FRICTION RATIO Fs/Q (%)
SLEEVE FRICTION Fs (Ton/ft^2)
CONE PRESSURE Qt (Ton/ft^2)
DEPTH (feet)
Max Depth : 52.82 ft
Depth Increment : .1 ft

FIGURE 8

J. CAMERON McKERNAN COMPANY

Engineering + Naval Architecture

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FACSIMILE TRANSMITTAL FORM

FILE NO: P97-10

DATE: 5-5-97

TRANSMIT TO: James T. Dietz

Koppers Industries, Inc.

FAX NUMBER: 412-826-3999

NUMBER OF PAGES TRANSMITTED INCLUDING THIS COVER SHEET: 6

PROJECT NAME: Portland Facility Marine Terminal

I send the following:

* DRAFT of Construction and Environmental Protection Procedure.
* Revised Site Plan showing revised routing of pipeline.

Sam McK

DRAFT 5-5-97

Koppers Industries Portland Distribution Facility
Construction of Marine Terminal and Additional Liquid Bulk Storage
Description and Environmental Protection Procedures

General

New storage tanks are being installed in the existing Koppers Facility to store and process liquid bulk coal tar pitch. Coal tar pitch is a petroleum like liquid pumped and stored at a temperature of 375° F to 480° F. The coal tar pitch will be received from ships arriving from overseas and landing at the existing pier operated by Pacific Northern Oil Co. on the riverfront adjacent to the Koppers Facility.

The coal tar pitch will be discharged from the ship and delivered to the new storage tanks through a new 10 inch insulated pipe. The new pipe is about 1500 feet long from the pier connection to the new storage tanks. The principal work that effects the existing land surface and soils is the excavation for foundation footings and foundation pile driving.

The project has three components:

1. Construction of the new storage tanks and associated piping and systems for blending and transfer of liquid bulk coal tar pitch to rail cars and trucks.

2. Modification of the existing pier operated by Pacific Northern Oil Company to provide a pipe connection to a ship for discharge of liquid bulk coal tar pitch from the ship to the new storage tanks.

3. Installations of a 10" pipe line from the existing pier to the new storage tanks.

Construction of Storage Tanks

The new storage tanks are 70 (80) feet diameter by 50 feet high. Three tanks will eventually be constructed. Initially only one tank will be installed. The new tanks will be located within the existing Koppers Industries Distribution Facility.

INITIAL PHASE WILL INCLUDE FOUNDATION FOR TWO TANKS

Installation of the new tanks will require removal of up to 6 feet of the existing top surface of the ground soil in way of the new tanks. A grid of steel H-piling will be driven to support the tanks. As many as 80 pilings about 50 feet long will be driven under each tank. (The exact number and length will be determined when the design is completed.) The pilings will be capped with a steel reinforced concrete pad and footing to support the tank. Clean gravel will be used for back fill around the pilings and concrete pads.

Cont'd . . .

Koppers Industries Portland Distribution Facility
Construction of Marine Terminal and Additional
Liquid Bulk Storage
Description and Environmental Protection Procedures

Construction of Storage Tanks (continued)

When excavating the for the foundation, representative soil samples will be taken and laboratory tested for contaminants. Test results will be reported to Northwest Natural Gas Co. Contaminated soils removed during the excavation will be disposed of in accordance with U. S. and Oregon environmental regulations. "Clean" soils suitable for fill will be used for backfill. Excess clean material will be used to fill low lying spots on the property. Such a low spot is just behind the existing dry bulk storage sheds. Excess clean excavated material and material not suitable for fill will be removed from the site and sent to a suitable disposal site such as an approved land fill.

In placing clean fill in low spots, the finished fill will be compressed and graded to accommodate rain water run off.

During the excavation, the temporary piles of excavated materials will be protected from rain water erosion. Suitable barriers using geotechnical fabrics, straw bales or other materials will be used to prevent silt generation and run-off.

Modification of Existing Piers

The existing pier will be modified to provide a new access bridge from shore for personnel and support of the new pipe line from the ship connection to shore. The existing access bridge between the central pier structure and the upstream dolphin will be removed and replaced with a new wider access bridge which will also support the new pipe line.

RIVER BED?

Construction and/or modification of the access bridge will require driving new pilings in the water to support the bridges. Four to six pilings will be driven in the water.

Construction equipment (floats, derricks, tugs, etc.) and personnel will be furnished by a marine contractor experienced with such construction.

The principal hazard during such operations is spilling oil from the equipment. Another hazard is to "stir-up" bottom sediments causing them to float to the surface. The oil spill hazard will be reduced by observing precautions during the operation. It is expected the in water operation will take two to three weeks. During this time equipment fueling operations will be minimized.

Cont'd . . .

Koppers018816

Koppers Industries Portland Distribution Facility
Construction of Marine Terminal and Additional
Liquid Bulk Storage
Description and Environmental Protection Procedures

Modification of Existing Piers (continued)

As an added safety measure, a floating oil retention boom will be deployed by the contractor. The oil retention boom will enclose the pile driving equipment and the area 150 feet around each piling locations.

In order to minimize disturbance of the bottom sediments, the pile driving marine contractor will be prohibited from using spuds or bottom anchors to position and hold the equipment. Spuds are long vertical posts which are lowered from the vessel through the water into the bottom to anchor the vessel. Instead of using spuds or bottom anchors, the contractor will be required to moor to the existing dock or to temporary mooring clumps on shore.

In the event of a spill or any raising of sediments or debris during the pier modification, the contractor will collect and dispose of the material. In the case of an oil spill the contractor shall observe all the U. S. Coast Guard Regulations. In the case of sediments or other floating material, the contractor shall handle them as if they are contaminated and dispose of these materials in accordance with U. S. and Oregon environmental regulations.

Installation of 10" Pipe Line

This pipe line will run from the pier connection to the new storage tanks. On the pier and the pier access bridge, the pipe will be supported by steel structure. On shore the pipe will be supported by footings set into the ground. Additional footings will be required to support the shore end of the pier access bridge and pipe cross over bridges in way of roadways.

The footings will be reinforced concrete slabs set three to four feet below the ground surface. Footings for the pipe structure will be about four feet square. Footings for the cross over bridge structures may be 8' x 8.' Approximately 70 footings spaced 20 to 25 feet apart will be required.

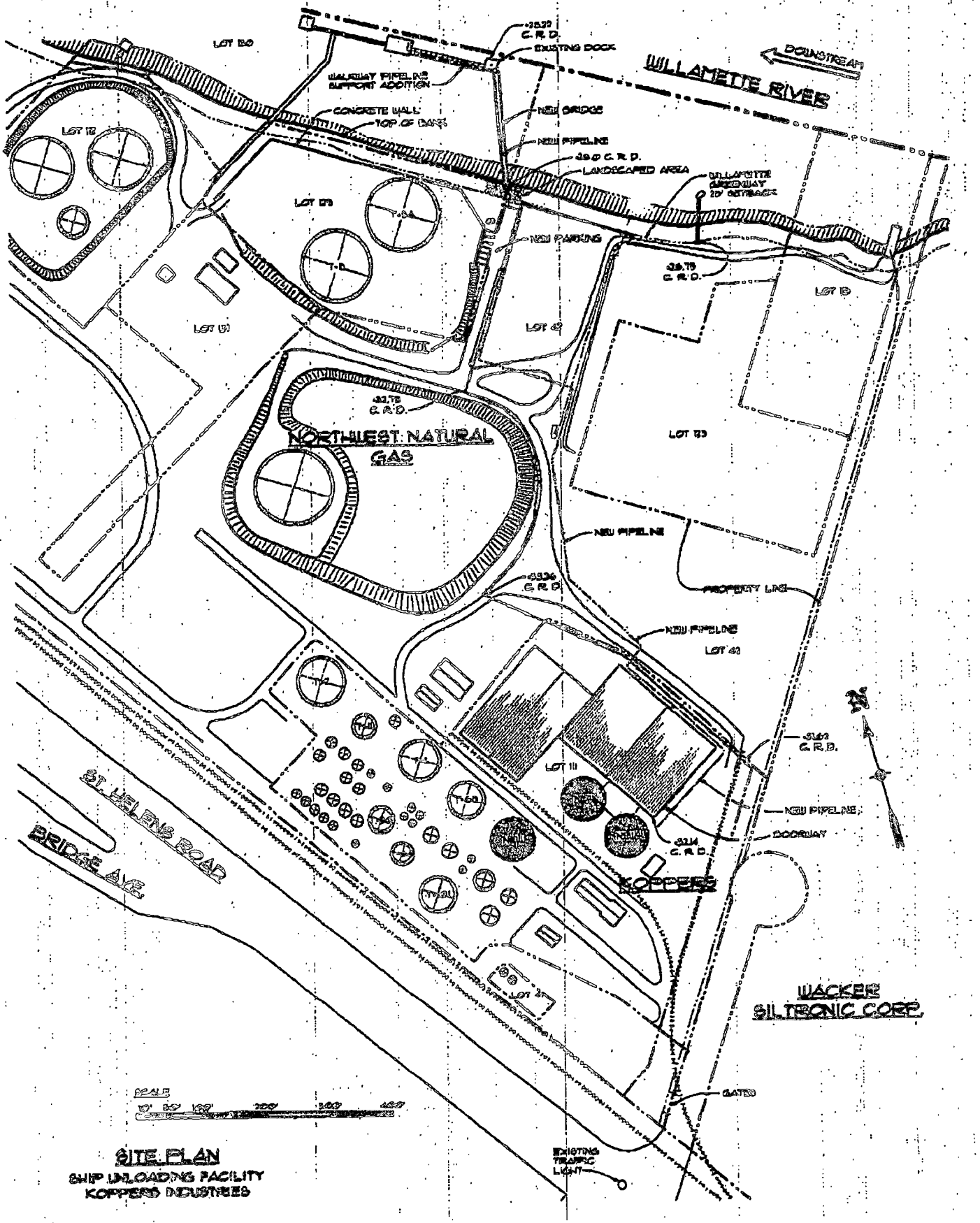
Each footing area will be excavated about four feet deep. The excavated material will be temporarily placed alongside the hole. A six inch layer of clean crushed rock will be placed in the bottom of the hole. A form, rebar, and post structure will be placed in the hole and the concrete footing will be poured in place.

Cont'd . . .

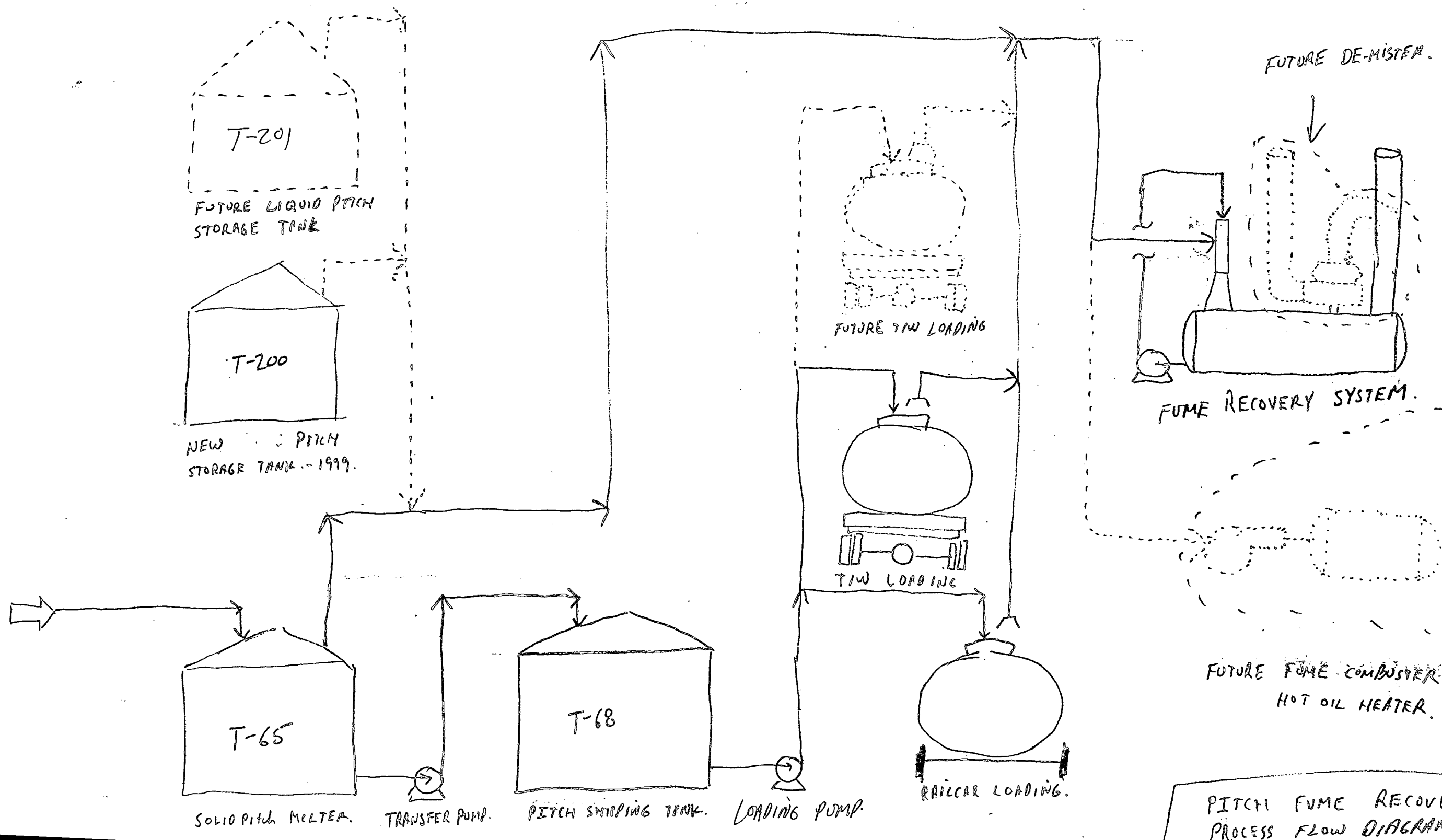
Koppers Industries Portland Distribution Facility
Construction of Marine Terminal and Additional
Liquid Bulk Storage
Description and Environmental Protection Procedures

Installation of 10" Pipe Line

A representative soil sample from each excavated hole will be tested. Tests results will be submitted to Northwest Natural Gas Co. If the test results are satisfactory, the excavated material will be used to back fill over the footing. If the test indicates the soil is contaminated, the contaminated soil will be removed from the site and disposed of as required by U. S. and Oregon environmental regulations. If necessary new clean fill will be used to back fill the footings.



SITE PLAN
SHIP UNLOADING FACILITY
KOPPERS INDUSTRIES



PITCH FUME RECOVERY PROCESS FLOW DIAGRAM

Koppers018820

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Engineering & Naval Architecture

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File No. P97-10
June 29, 1999

COPY

Permits
Portland Fire & Rescue
55 SW Ash
Portland, Oregon 97204

Attention: Doug Friant

Subject: Koppers Industries, Inc./Pacific Northern Oil Pier
7540 NW St. Helens Road, Portland
Permit Application for New Tank Installation

Enclosures: SEE ATTACHED LISTING (2 pages)

Gentlemen:

We submit Application for Permit to install a new tank & associated piping. We enclose the required plans and permit fees.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
AGENT FOR KOPPERS INDUSTRIES, INC.

By: Cameron McKernan

J. Cameron McKernan, President

cc: Koppers Industries, Inc.

RECEIVED
JUN 3 [illegible]
KOPPERS IND[illegible]
PORTLAN[illegible]

Portland Fire & Rescue
Koppers Industries, Inc./Pacific Northern Oil Pier
Permit Application for New Tank Installation

File No. P97-10
June 29, 1999

MCKERNAN LETTER LIST OF ENCLOSURES:

1. Application for Permit to Install Tank
2. Check for Permit Fees
3. Process Description for Liquid Pitch Unloading
4. Engineering Specifications for Liquid Pitch Unloading
5. Material Safety Data Sheet: Carbon Pitch Liquid dated 6/95, 6 pages
6. Material Safety Data Sheet: Caloria HT 43 dated 02/22/95, 7 pages

7. "79'-0" Ø x 57'-0" API" Tank Dwg #: 23800101 (50 sheets) by Morse Construction Group, Inc.

8. McKernan Plans:

No.	Rev.	Title
97010-21	4	Site Plan
97010-22	-	Fire & Safety Plan
97010-22A	-	Fire Mains & Hydrants (existing)
97010-23	1	Walkway Pier to Dolphin: Arrangement
97010-29	1	Bridge to Shore: Arrangement
97010-38	-	Service Platform: Deck Plan
97010-42	0	Ship Transfer Pipe: Arrangement - Key Plan
97010-43	1	Ship Transfer Pipe: Segment 01
97010-44	0	Ship Transfer Pipe: Segment 02
97010-45	0	Ship Transfer Pipe: Segment 03
97010-46	0	Ship Transfer Pipe: Segment 04
97010-47	0	Ship Transfer Pipe: Segment 05
97010-48	0	Ship Transfer Pipe: Segment 06
97010-49	0	Ship Transfer Pipe: Segment 07
97010-50	0	Ship Transfer Pipe: Segment 08
97010-51	0	Ship Transfer Pipe: Segment 09
97010-52	0	Ship Transfer Pipe: Segment 10
97010-53	0	Ship Transfer Pipe: Segment 11
97010-54	0	Ship Transfer Pipe: Segment 12
97010-57	0	Ship Transfer Pipe: Ship Connection Drain Pump
97010-58	0	Heat Trace Piping: Expansion Loop Details
97010-59	0	Heat Trace Piping: At Flow Meter
97010-60	0	Heat Trace Piping On Pier: Schematic & Details
97010-67	0	Pipe: Miscellaneous Details, Sheet 1
97010-68	0	Pipe: Miscellaneous Details, Sheet 2
97010-69	1	Road Crossover Bridge: Plan & Elevations

Cont'd . . . .

MCKERNAN LETTER LIST OF ENCLOSURES (continued):

9. Chem Tech Plans:

No.	Rev.	Title
6526-G001	2	Drawing Index
6526-G002	0	General Arrangement Plan
6526-A001	0	T-200 Pitch Tank - 79' Dia. x 57' High - Plan, Elevation, Section & Detail
6526-A002	0	T-200 Pitch Tank - 79' Dia. x 57' High - Details
6526-D002	0	Mechanical Legend Sheet - Piping & Instrument Diagram
6526-D003	0	Instrument Legend Sheet - Piping & Instrument Diagram
6526-D004	0	Pitch Tanks T-200 & T-210 - Piping & Instrument Diagram
6526-D005	0	Hot Oil System - Piping & Instrument Diagram
6526-D006	0	Hot Oil Distribution - Piping & Instrument Diagram
6526-D007	0	Bulk Nitrogen System - Piping & Instrument Diagram
6526-D008	0	Miscellaneous utilities - Piping & Instrument Diagram
6526-D009	0	Existing Hot Oil Distribution Modifications - Piping & Instrument Diagram
6526-D0010	0	Ship Unloading - Piping & Instrument Diagram
6526-F001	0	Pitch Tanks T-200 & T-210 - Flow Diagram
6526-F002	0	Hot Oil System - Flow Diagram
6526-P001	1	Overall Piping - Plan
6526-P002	1	Pitch piping at Tank Outlet to Pumps, Hot Oil, Nitrogen, Steam Tracing & Pump Outline
6526-P003	1	Pitch Tank - Piping - Section
6526-P004	0	Pitch Tank Area - Piping - Sections
6526-P005	0	Hot Oil Expansion Tank Piping - Plan 7 Sections
6526-P006	1	Hot Oil Shed Piping - Plan & Sections
6526-P007	0	Hot Oil Shed Piping - Sections
6526-P008	0	Hot Oil Expansion Tank Area - Sections & Details
6526-P009	0	Hot Oil Shed Piping Isometrics
6526-P0010	1	Miscellaneous piping - Sections and Details
6526-P0011	0	Existing Hot Oil System - Piping Isometric - Revisions
6526-P0012	0	Hot Oil System - Tracing Details
6526-P0013	0	Hot Oil Tracing Isometrics @ Pitch Tank Area
6526-P0014	0	Modifications to hot Oil Heating system - Piping Isometric
6526-P0015	1	Pipe Supports/Anchors - Sheet 1 of 2
6526-P0016	1	Pipe Supports/Anchors - Sheet 2 of 2
6526-P0017	0	Steam to Maintenance Building - Isometric Piping & Details
6526-P0018	0	Heavy Oil Line - Isometric
6526-P0019	2	Typical Steam Purge and Dry Nitrogen (N2 Purge)

Koppers018823

APPLICATION FOR PERMIT TO INSTALL/REMOVE TANKS, CYLINDERS, AND EQUIPMENT

Fire Prevention, City of Portland, Oregon

823-3700

For PFB Use Only
Permit Number

Amount Submitted with Application $_____ Code: _____

Amount Still Due $_____

TOTAL COST OF THIS PERMIT $_____ Date: _____

Plans must be submitted to the Fire Prevention Division & approved BEFORE installation.

NEW INSTALLATION X ADDITION _____ REPAIR _____ ALTERATION _____

ABANDONMENT: REMOVAL _____ ABANDON _____

LIQUIDS/TANKS X L.P.G. _____ GASES _____ CRYOGENS _____ MED GAS _____

JOB ADDRESS 7540 NW St. Helens Road, Portland, Oregon 97210-3663

BUILDING NAME ~ OCCUPANCY ~

OWNER Koppers Industries, Inc. PHONE NO. (503) 285-2831

CONTRACTOR MORSE/McDOWELL PHONE NO. _____

PLANS SUBMITTED Yes SPECIFICATION Yes NUMBER OF SHEETS _____

TOTAL VALUATION OF WORK (Fee Based on this figure) $ 1,073,000

TANKS: PRODUCT TO BE STORED IN TANKS: Coal Tar Pitch Liquid

TANK LOCATION: UNDERGROUND _____ ABOVEGROUND X INSIDE _____ OUTSIDE X

TANK MATERIAL: Steel TANK CAPACITIES : 1. 2M g. 2._____ 3._____ 4._____

PIPING:MATERIAL: Steel SINGLE-WALL X DOUBLE-WALL_____

DISPENSING METHOD Pump FOR ADDITIONAL TANK CAPACITIES_____

LP GASES: CYL SIZE: ___ USE: VAPOR/LIQUID ___ PUMP ___ GRAVITY ___ BARRICADES: 0

COMPRESSED GASES: PRODUCT(S) 0 NO. OF CYL'S _____ SIZE _____

FOR ADDITIONAL CYLINDER CAPACITIES _____

DESCRIPTION OF WORK Install 2,000,000 gallon storage tank and associated heating, ship unloading, and truck and tank car loading pipe.

==========

APPROVED permit includes only work described above and/or on plans and specifications bearing the same permit number and will comply with all applicable codes and ordinances of the City of Portland, Oregon.

NAME OF CONTRACTING COMPANY TANK: Morse Construction Group (425) 258-2731
PIPE: McDowell Welding (503) 241-2410 PHONE

ADDRESS MORSE: 5500 S First Ave., Everett, WA 98204-4116
McDOWELL: 4000 NW St. Helens Rd. Portland, OR 97210

NAME OF APPLICANT Koppers Industries, Inc. Amos Kamerer

(PLEASE PRINT) SIGNATURE OF APPLICANT

FIRE PREVENTION DIVISION: FIRE MARSHAL BY:_____ INSPECTOR

300.150 (Revised 06/97)

C:my document\word\forms

Koppers018824

Plan Submittal Requirements for Approval for Permit of Storage and Use of Hazardous Substances

1. Submit two sets of plans to include the following:
   a. A plot plan with project address located on first page.
   b. Location of buildings or structures, storage tanks, and relationships to other premises giving pertinent distances.
   c. Distances to piping and valves.
   d. Tank capacities.
   e. Diking volumes and dimensions.
   f. Details of design construction of storage areas.
   g. Fire protection criteria shall include:
      Sprinklers (if required), fire separation from other building uses, storage methods, and separation from other storage areas and products.
2. Types of products to be stored. (Material Safety Data Sheets may be required.)

3. Description of storage tanks, piping and associated equipment.
   a. Tank and piping specifications and listings such as UL or ANSI listing numbers.
   b. Venting: normal and emergency.
   c. Fill practices and methods.
   d. Containment, if required, double-wall, single-wall, and dikes.
   e. Safety devices required, such as exhaust scrubbers, explosion venting, treatment systems, etc.

4. Fuel storage tanks with pumps and dispensers, emergency safety devices.
   a. Method of dispensing.
   b. Emergency shut-off switches.
   c. Fuel fill break-aways.
   d. Overfill protection.
   e. Pump valve break-aways.

Suggested resources include Uniform Fire Code, Uniform Mechanical Code, Uniform Building Code, 1994 Editions, with Oregon Amendments, appropriate NFPA Pamphlets that relate to specific types of products and processes.

Twenty-four (24) hours notification required for inspections. Call between 7:30 am - 5:00 pm., Mon.-Thurs. at 823-3935. Ask for Inspector Doug Friant.

When construction starts, after approval, make sure to **obtain all necessary signatures** for each step of installation (see permit copy), a **final must be called for** and signed to make the permit complete.

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TO CALCULATE TOTAL FEE:

PERMIT FEE CALCULATION (refer to Table 40-A)

$ 1,336.85 (Base fee for first $ 100,000 of valuation.)

+ 7,492.10 ($ 7.70 per $1,000 beyond base fee)

= 8,828.95 (Subtotal A)

X 1.65 (Plan Review charge. If permit is to be doubled, use 2.65 as multiplier)

= 14,567.77 (Subtotal B)

+ 10.00 (Add microfilm charges)

+ 14,577.77 TOTAL DUE FOR THIS PERMIT

EXAMPLE

Install a 10,000 gallon above ground diesel tank and pumping system.

Contract value of work **$8,242**

PERMIT FEE CALCULATION (refer to Table 40-A

8,242
2,000
6,242 = 7 units

$ 101.30 (for the first $2,000 of valuation)

+ 129.50 ($ 18.50 per $1,000 beyond base fee) 18.50 x 7

= 230.80 (Subtotal A)

X 1.65 (Plan Review charge) (If permit is to be doubled, use 2.65 as multiplier)

= $380.82 (Subtotal B)

+ 1.00 (Add microfilm charges, 1 page)

= $ 381.82 TOTAL DUE FOR THIS PERMIT

PORTLAND BUREAU OF FIRE, RESCUE, and EMERGENCY SERVICES

TABLE 40-A - Effective Date 7/10/91

PERMIT FEE SCHEDULE FOR INSTALL & REMOVAL OF TANKS (GAS, DIESEL, HEATING OIL, LP GAS, CRYOGENS, COMPRESSED GASES, ETC)

TOTAL VALUATION OF WORK TO BE PERFORMED	FEES
$1 to $500	$30.80 minimum fee.
$501 to $2,000	$30.80 for the first $500, plus $4.70 for each additional $100 or fraction thereof, to and including $2,000.
$2001 to $25,000	$101.30 for the first $2,000, plus $18.50 for each additional $1,000 or fraction thereof, to and including $25,000.
$25,001 to $50,000	$526.80 for the first $25,000, plus 13.90 for each additional $1,000 or fraction thereof, to and including $50,000.
$50,001 to 100,000	$874.30 for the first $50,000, plus $9.25 for each additional $1,000 or fraction thereof, to and including $100,000.
$100,000 and Up	$1,336.85 for the first $100,000, plus $7.70 for each additional $1,000 or fraction thereof.

Plan Review Charges = 65% of Permit Fee.

Additional plan review required by changes, additions or revisions to approved plans:
$35.00 per hour (minimum charge - one-half hour)

Microfilm Service Charge: For each application or address:

$1.00 for the first document .50 for each document thereafter

TO CALCULATE TOTAL FEE:

- Step 1: Determine the value of the work (i.e., time and material)
- Step 2: Convert value to fee using Table 40A.
- Step 3: Add Plan Review charges by multiplying fee by 1.65.
- Step 4: Add microfilm charges

*NOTE: On tank removal/abandonment: omit step 3, since plans are not submitted.

(See back of this page for example)

Koppers018827

Indicator

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS
P.O. Box 8120
Portland, OR 97207
FAX # 823-5434

STRUCTURAL SPECIAL INSPECTION AND OBSERVATION PROGRAM

APPLICATION # BLD98-03757

Date March 5,1999

The architect or engineer of record shall prepare and submit a special inspection and structural observation program in accordance with UBC Section 106.3.5. The architect or engineer of record shall confirm that the special inspection and structural observations noted below are indicated on the plans. Major projects may require that a more complete program be prepared.

The architect or engineer of record shall complete Parts B and C (if applicable) of this form and then return it to the Special Inspection Section for approval prior to issuance of a building permit. Part D must be signed by the owner or owner's agent.

Please note that a separate soils special inspection form may also be required.

Project Name: BLD98-03757

Architect of Record (Firm) J. Cameron McKernan Phone # 232-7211

Engineer of Record (Firm) KPFF Consulting Engineers and Roberts Engineers Phone # 227-3251

The following special inspections and structural observations shall be performed according to the State Building Code and City of Portland Administrative Rules unless a program of inspections is submitted by the Engineer of Record and approved by the Plan Review Division.

A.

[X] Anchors - Adhesive	[X] Reinforced Concrete	[X] Structural Steel	[ ] Wood 5-Story Constr
[X] Anchors - Cast-in-place	[ ] Prestressed Concrete	[ ] Str. Silicone Glazing	[ ] Fireproofing
[x] Anchors - Expansion	[ ] Shotcrete	[ ] Masonry fm =	
[X] Special Cases: Inspection for welding of different courses of Tank Shell			

B. Indicate the special inspector or approved testing agency to perform the special inspections noted in Part A above.

SEE ATTACHED SHEETS

C. [X] Structural Observation by Engineer of Record. Indicate stages at which structural observation is to occur:

SEE ATTACHED SHEETS

D. The owner hereby agrees to employ the special inspector, approved testing agency and/or engineer for the above-noted special inspections and/or structural observation.

Signature of Owner or the Architect or Engineer Acting as the Owner's Agent

Print Name Amos Kamerer, Plant Manager Phone No. (503) 286-3681

Firm Koppers Industries, Inc. Date 3/26/99

Amit Kumar
Structural Plans Examiner

Application #BLD98-03757 March 25, 1999
Structural Special Inspection & Observation Program

- Foundations of Tank and Miscellaneous Foundations & Steel Structures in Tank Area (As Shown on the Following Plans):

PLAN NO.	REV.	TITLE
98567-S09	2	STRUCTURAL FOUNDATION PLAN
98567-S10	2	STRUCTURAL FOUNDATION PLAN
98567-S11	2	STRUCTURAL DETAILS
98567-S12	2	STRUCTURAL DETAILS

Special Inspections

Grading, Excavation & Fill
Final Foundation Preparation
Pile Driving
} by: GeoEngineers *

Concrete
- Re-bar placement
- Anchor bolts & inserts
- Concrete testing
- Concrete placement
- Epoxy anchor placement
- Expansion anchor placement

Welding
} by: Professional Services Industries, Inc.

Structural Observations at the following points

After pile driving
After grading, excavation & fill
After setting re-bar
During and after setting of tank anchor bolts
During and after concrete placement
During and after securing of tank anchor bolts
} by: KPFF Consulting Engineers

CONT'D . . .

* See sheet 5 for complete information on Special Inspection firms.

Koppers018829

- Miscellaneous Structures in Tank Area (As Shown on the Following Plans):

PLAN NO.	REV.	TITLE
6526-S001	2	HOT OIL PUMP SHED STRUCTURAL PLANS, SECTIONS & DETAILS
6526-S002	2	PITCH PUMP SHED & PIPE BRIDGE #2 STRUCTURAL PLANS, SECTIONS & DETAILS
6526-S003	2	PITCH PUMP SHED & PIPE BRIDGE #2 STRUCTURAL SECTIONS & DETAIILS
6526-S004	2	PIPE SUPPORTS & PIPE BRIDGE #1 PLAN, ELEVATION & DETAILS
6526-S005	2	PIPE SUPPORTS ELEVATION & DETAILS
6526-S006	2	STORAGE TANK AREA PIPE SUPORT LOCATION PLAN

Structural Observations as follows:

Shop checks of prefabricated steel sections before galvanizing
During and after setting of anchor bolts
During and after steel erection
After weld-out and completion
} by: KPFF Consulting Engineers

- 9000 Metric ton Capacity Pitch Tank (As Shown on Morse Construction Group, Inc. No. 2380-P0-6158, 50 sheets, Dwg. Nos. 23800101 through 23800149)

Special Inspections:

X-Ray of tank welds in accordance with API 650
} by: Pacific Technical Industries, Inc.

Structural Observations as follows:

During and after placement of bottom plates
During and after erection of side shell plate courses
After installation of access openings
After installation of nozzles
During and after erection of stairways and access platforms
During and after erection of roof supports roof plates
} by: J. Cameron McKernan Company

Contractor Inspections

In accordance with attached Field Inspection Check List (API)

Koppers018830

- Piping Supports and Work Away from Tank Area (As Shown on the Following Plans):

PLAN NO.	REV.	TITLE
97010-64	0	PIPE SUPPORT FOUNDATION: SHORESIDE GUIDED
97010-69	1	ROAD CROSSOVER BRIDGE: PLAN & ELEVATIONS
97010-70	1	DOORWAY CROSSOVER BRIDGE: PLAN & ELEVATIONS
97010-71	0	PIPE CROSSOVER STILE: AT SHORSIDE
97010-72	0	PIPE CROSSOVER STILE: AT DOLPHIN

Structural Observation at the following points

Setting and driving of pipe support stakes
Completion of shop fabrication prior to galvanizing
Foundation excavation and compaction of gravel base fill
Steel erection, setting re-bar and concrete placement
Backfill of foundation

} by: J. Cameron McKernan Company

FIELD INSPECTION CHECKLIST (API)

JOB: 2380-Koppers FIELD SUP'T:

ITEM	INSPECTION TYPE	Req.	Resp.	Done	DATE / COMMENTS
CONCRETE RINGWALL	VISUAL	X	P.Mgr		
" " " "	SHOOT FOR LEVEL	X	P.Mgr		
" " " "	BOLT RAD./PLUMB	X	P.Mgr		
UNDERGROUND PIPING	ORIENTATIONS OK	X	Sup't.		
SUMPS	VISUAL	X	Sup't.		
" "	DIESEL	X	Sup't.		
BOTTOM WELD	VISUAL	X	Sup't.		
" " " "	VACUUM BOX	X	Sup't.		
CORNER WELD	VISUAL	X	Sup't.		
" " " "	DIESEL	*	Sup't.		* must do if no vacuum test
" " " "	VACUUM	*	Sup't.		* must do if no diesel test
" " " "	AIR/SOAP (API-620)		Sup't.		
SHELL JOINTS	VISUAL	X	Sup't.		
" " " "	X-RAY	X	Others		Pacific Technical Ind. Inc. as required
" " " "	TANK HYDROTEST	X	Sup't.		
ANCHOR CHAIRS	VISUAL	X	Sup't.		
" " " "	M.P.				
MECHANICAL JOINTS	WRENCH TIGHTEN	X	Sup't.		Seals in?
" " " "	HYDROTEST	X	Sup't.		
NOZZLES	VISUAL	X	Sup't.		Plumb? Bolt orient. OK?
" "	X-RAY / M.P.	X	Others		Pacific Technical Ind. Inc. as required
MANHOLE / CLEAN-OUT	VISUAL	X	Sup't.		
" " " "	VACUUM	X	Sup't.		
" " " "	COVERS BOLTED	X	Sup't.		Incomplete pending paint? (y/n):
DOUBLER PLATES	VISUAL	X	Sup't.		
" " " "	AIR TEST	X	Sup't.		
ROOF	VISUAL	X	Sup't.		
" "	VACUUM BOX		Sup't.		
BOLTS-Flanges & Other	WRENCH TIGHTEN	X	Sup't.		
LADDER-CLIP WELDS	VISUAL	X	Sup't.		
INTERNAL FLOATS	VISUAL	X	Sup't.		Confirm adequate buoyancy
TANK PLUMBNESS	VISUAL	X	Sup't.		See QA chart.
" " ROUNDNESS	VISUAL		Sup't.		See QA chart.
SAFETY CLIMBS	CONFIRM PRESENT	X	Sup't.		(I)nstalled or (P)ainter resp.? ___
LEVEL GAUGE	INSTALLED?	X	Sup't.		
NUTS/BOLTS/GASKETS	CONFIRM / COUNT	X	Sup't.		Location:
J-Shack/ SaniKan/ Phone	Called for pick-up?	X	Sup't.		Gas cylinder return count OK? (y/n) ___
SITE CLEANED UP?	VISUAL	X	Sup't.		

REPORT SUBMITTED BY: _____ (Sup't.) DATE: _____

REVIEWED BY: _____ (P.Mgr) DATE: _____

TOTAL P.02

COMPANY CONTACTS

GeoEngineers, Inc.
7504 SW Bridgeport Road
Portland, Oregon 97224

Contact: Jack Tuttle

Telephone: (503) 624-9274

J. Cameron McKernan Company
Engineering + Naval Architecture
825 NE 20th Avenue, Suite 110
Portland, Oregon 97232

Contact: Cameron McKernan

Telephone: (503) 232-7658

KPFF Consulting Engineers
111 SW Fifth Avenue, Suite 2500
Portland, Oregon 97204

Contact: Sam Moss

Telephone: (503) 227-3251

Morse Construction Group, Inc.
5500 South First Avenue
Everett, Washington 98203

Contact: Ray J. Maw

Telephone: (425) 258-2350

Pacific Technical Industries Inc.
1414 127th Place NE, #107
Bellevue, Washington 98005

Contact: Doug Nalley

Telephone: (425) 646-9294

Professional Services Industries, Inc.
12812 NE Marx Street
Portland, Oregon 97230

Contact: James L. Ellis, Sr.

Telephone: (503) 254-8418

Koppers018833

As defined in this code, the following occupancies with areas and heights specified are required to satisfy ORS 479.155(2). The following provisions shall apply in all municipalities unless exempted by the Building Codes Division through delegation of the fire and life safety plan review program.

The owner shall submit to the building codes administrator two copies (or, when required, an additional copy shall be submitted for local government use) of a plan or sketch drawn clearly and to scale showing information as set forth in Section 106.3.3.1 prior to construction or alteration of:

1. Group A Occupancies.

2. Group B Occupancies over 4,000 square feet (372 m^2), or more than 20 feet (6096 mm) in height, or with a basement.

3. Group E Occupancies.

4. Group F Occupancies over 4,000 square feet (372 m^2) or more than 20 feet (6096 mm) in height or with a basement.

5. Group H Occupancies of 1,500 square feet (139 m^2) or more than one story or 20 feet (6096 mm) in height or with a basement.

6. Group I Occupancies.

7. Group M Occupancies over 4,000 square feet (372 m^2) or more than 20 feet (6096 mm) in height or with a basement.

8. Group R, Division 1 Occupancies over 4,000 square feet (372 m^2) or more than 20 feet (6096 mm) in height or with a basement over 1,500 square feet (139 m^2).

9. Group S, Division 1, 2, 3 and 4 Occupancies over 4,000 square feet (372 m^2) or more than 20 feet (6096 mm) in height or with a basement.

10. Group S, Division 5 Occupancies over 9,000 square feet (836 m^2) or more than 20 feet (6096 mm) in height or with a basement over 1,500 square feet (139 m^2).

11. Group SR Occupancies.

12. Group U, Division 1 Occupancies over 4,000 square feet (372 m^2) or more than 20 feet (6096 mm) in height or with a basement.

Two copies of a plot plan for the occupancies listed above shall be submitted for the placing of prefabricated structures to show the relationship of all adjacent buildings and their exitways.

106.3.3.3 Fire and life safety plan review limits. The following portions of this code shall be used to review the plans submitted under this subsection. (These requirements are not intended to apply to structural, architectural, light and ventilation, disabled access and energy conservation requirements of the code except as they affect requirements included on the list.)

Chapter 1, except Sections 104.1 through 104.2.6, 104.2.10, 105, 106, 106.3.3, 106.4, 107.3 through 107.7, 108 and 109;

Chapter 2;

Chapter 3, except Sections 303.5, 304.5, 305.5, 306.5, 307.5, 308.5, 309.5, 310.5, 311.5, 311.11 (new S-6 mausoleums and columbariums), 312, 312A.6 (SR Occupancy);

Chapter 4, except Section 406.7;

Chapter 5;

Chapter 6, except Sections 602.2, 603.2, 604.2, 605.2 and 606.2;

Chapter 7;

Chapter 8;

Chapter 9;

Chapter 10;

Section 1107;

Chapter 14, except Section 1402;

Chapter 15, except Section 1506;

Chapter 24;

Chapter 31;

Chapter 32, except Sections 3102, 3202 and 3204;

Appendix Chapter 3, Divisions I and II; and

Appendix Chapter 31, Division II

106.3.4 Architect or engineer of record.

106.3.4.1 General. When it is required that documents be prepared by an architect or engineer, the building official may require the owner to engage and designate on the building permit application an architect or engineer who shall act as the architect or engineer of record. If the circumstances require, the owner may designate a substitute architect or engineer of record who shall perform all of the duties required of the original architect or engineer of record. The building official shall be notified in writing by the owner if the architect or engineer of record is changed or is unable to continue to perform the duties.

The architect or engineer of record shall be responsible for reviewing and coordinating all submittal documents prepared by others, including deferred submittal items, for compatibility with the design of the building.

106.3.4.2 Deferred submittals. For the purposes of this section, deferred submittals are defined as those portions of the design that are not submitted at the time of the application and that are to be submitted to the building official within a specified period.

Deferral of any submittal items shall have prior approval of the building official. The architect or engineer of record shall list the deferred submittals on the plans and shall submit the deferred submittal documents for review by the building official.

Submittal documents for deferred submittal items shall be submitted to the architect or engineer of record who shall review them and forward them to the building official with a notation indicating that the deferred submittal documents have been reviewed and that they have been found to be in general conformance with the design of the building. The deferred submittal items shall not be installed until their design and submittal documents have been approved by the building official.

106.3.5 Inspection and observation program. When special inspection is required by Section 1701, the architect or engineer of record shall prepare an inspection program that shall be submitted to the building official for approval prior to issuance of the building permit. The inspection program shall designate the portions of the work that require special inspection and the name or names of the individuals or firms who are to perform the special inspections, and indicate the duties of the special inspectors.

The special inspector shall be employed by the owner, the engineer or architect of record, or an agent of the owner, but not the contractor or any other person responsible for the work.

When structural observation is required by Section 1702, the inspection program shall name the individuals or firms who are to perform structural observation and describe the stages of construction at which structural observation is to occur.

The inspection program shall include samples of inspection reports and provide time limits for submission of reports.

106.4 Permits Issuance.

NOTE: Unless amended by a municipality under authority of ORS 455.020, the following requirements apply.

Koppers018834

KOPPERS INDUSTRIES

FAX TRANSMITTAL

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663

Telephone: 503-286-3681
Fax: 503-285-2831

TO: J. Stephenson DATE: 3/26/99

FROM: Amos TOTAL # OF PAGES: 7

First, please give a copy of this Bill As well
Second, could you please call me About this,
one thing needs to be Addressed And
it will be easier to explain over the
phone

Thanks. Jack will contact Morse & Pacific

IF THIS TRANSMITTAL IS IN ERROR. PLEASE CALL 503-286-3681 FAX # 503-285-2831

KOPPERS INDUSTRIES

FAX TRANSMITTAL

7540 N.W. Saint Helens Rd.
Portland, Oregon 97210-3663
Phone: (503) 286-3681
Fax: (503) 285-2831
Web Page: www.koppers.com

TO: B. Meisinger DATE: 4/23/99

FROM: Amos TOTAL # OF PAGES: 8

Per my voice mail

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

GeoEngineers

June 8, 1999

Consulting Engineers and Geoscientists
Offices in Washington, Oregon, and Alaska

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, Pennsylvania 15238-1362

Attention: William A. Meisinger, P.E.

Letter of Compliance for Driven Pile Installation
Coal Tar Pitch Storage Tank Foundation
7540 NW St. Helens Road
Portland, Oregon
File No. 5823-001-02

The purpose of this letter is to provide Koppers Industries, Inc. with confirmation that the piles required for support of the coal tar pitch storage tank presently under construction at your Portland facility have been installed as intended. This letter completes our obligations for special inspection services related to the pile foundations for the project as required by the City of Portland. The City of Portland building permit number for this project is BLD98-03757.

A total of 216 steel pipe piles were installed between May 17, and June 7, 1999. A representative of GeoEngineers observed the installation of the piles on a full-time basis as documented in the attached daily field reports and pile installation records.

Dewitt Construction Company installed all piles using a Delmag D-16-32 diesel hammer. The piles were installed to a refusal criterion of 250 blows/foot at an energy level of approximately 35,000 foot-pounds. This criterion yields an ultimate pile capacity of 600 tons.

Based on our observations and the pile driving data compiled as part of our observations, we conclude that all piles were installed in general conformance with the recommendations provided in our geotechnical engineering report for this project dated May 9, 1997 and project specifications.

GeoEngineers' involvement with this project was limited to observation of activities pertaining to the geotechnical engineering aspects of the pile driving operation. Our involvement did not include supervision or direction of the actual work of the contractor.

RECEIVED
JUN 10 1999
KOPPERS INDS, INC.
PORTLAND OR

GeoEngineers, Inc.
7504 SW Bridgeport Road
Portland, OR 97224
Telephone (503) 624-9274
Fax (503) 620-5940

Printed on recycled paper.

We appreciate the opportunity to be of service. Please call if you have any questions regarding the information presented in this letter or if we can be of further assistance.

06/08/99

EXPIRES: 06/30/00

Respectfully submitted,

GeoEngineers, Inc.

Jack K. Tuttle, P.E.
Principal

Nicole O. Blanchard

Nicole O. Blanchard, E.I.T.
Geotechnical Engineer

NOB:JKT:ja
P:\5823001\02\finals\582300102compltr.doc

Attachments

Three copies submitted

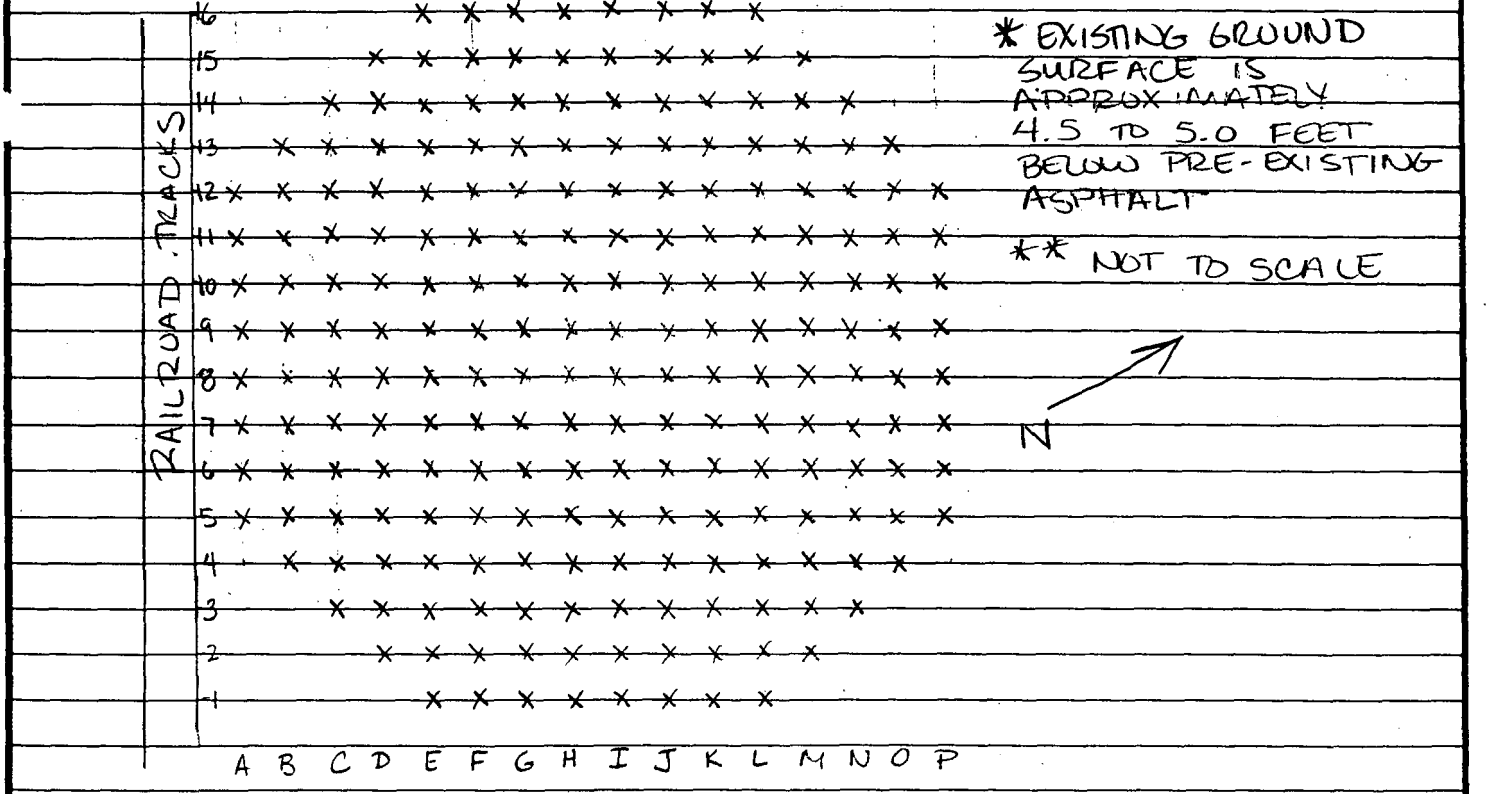
cc: Amos Kamerer
Koppers Industries, Inc.
7540 Northwest St. Helens Road
Portland, OR 97210-3663

Jay Ponce, Special Inspection Coordinator
City of Portland Bureau of Buildings
P.O. Box 8120
Portland, OR 97207-8120

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS, INC.		Date: 5/17/99
	Owner: NNG Co.		Report No. 1
Prepared by: NICOLE BLANCHARD	Location: PORTLAND, OR	Arrival Time: 7:15 AM	Page: 1 of 1
Purpose of Visit: PILE DRIVING OBSERVATION	Weather: CLOUDY/RAIN, 55°	Depart. Time: 3:30 PM	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:15 AM AS REQUESTED BY AMOS KAMERER OF KOPPERS, INC. TO OBSERVE THE INSTALLATION OF 16-INCH O.D., CLOSED-END PILES. THE PILES ARE TO BE DRIVEN TO REFUSAL CRITERIA OF 250 BLOWS/FT. (ULTIMATE PILE CAPACITY OF 6000 TONS, FS = 2.5)

I ASSUMED A GRID PATTERN TO PROVIDE A PILE IDENTIFICATION RECORD SINCE IT APPEARS NOTHING HAS BEEN ESTABLISHED. THE GRID PATTERN IS AS FOLLOWS:



THE FOLLOWING (12) PILES WERE DRIVEN TODAY TO DEPTHS RANGING FROM 45 TO 50 FEET BELOW EXISTING GROUND:

A11, A12, B11, B12, B13, C11, C12, C13, C14, D11, D12, D13

This report presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications throughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-002-01
	Project: KOPPERS, INC.		Date: 5/18/99
	Owner: NNG Co		Report No. 2
Prepared by: NICOLE BLANCHARD	Location: ~~NW St Helens~~ PORTLAND, OR	Arrival Time: 7:00 AM	Page: 1 of 1
Purpose of Visit: PILE DRIVING OBSERVATION	Weather: RAIN, 50°	Depart. Time: 3:15 PM	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM.

TWENTY SIX PILES WERE DRIVEN TODAY TO DEPTHS RANGING FROM 46 TO 58 FEET BELOW THE GROUND SURFACE (4.5 TO 5 FEET BELOW PRE-EXISTING ASPHALT). IT APPEARS THAT THE 60'-0" PILES WILL NOT BE LONG ENOUGH TO PROVIDE BEARING FOR THE NORTH 1/3 OF THE AREA. THE BEARING STRATUM IS DIPPING LOWER IN ELEVATION (~30° SLOPE) TOWARD THE RIVER.

I NOTIFIED BILL OF HARDER AND CHARLIE NORRIS OF KOPPERS THAT THE LENGTH OF PILES WILL MOST LIKELY NOT BE ADEQUATE FOR APPROXIMATELY 75-PILES ALONG THE NORTH SIDE OF THE TANK AREA. THEY PLAN ON MAKING ARRANGEMENTS WITH DEWITT FOR SPLICING THE PILES.

THE FOLLOWING PILES WERE DRIVEN TO REFUSAL TODAY: H15, G15, D14, C10, C9, C8, C7, B10, B9, B8, B7, A10, A9, A8, A7, F14, E14, F15, E16, E15, J16, D15, G16, F16, H16, I16

I LEFT THE SITE AT 3:15 PM.

This report presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications throughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-002-01
	Project: KOPPERS, INC.		Date: 5/19/99
	Owner: NNG Co.		Report No. 3
Prepared by: NICOLE BLANCHARD	Location: NW. St. Helens PORTLAND, OR	Arrival Time: 7:00 AM	Page: 1 of 1
Purpose of Visit: PILE DRIVING OBSERVATION	Weather: PARTLY SUNNY, 60°	Depart. Time: 3:30 PM	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM.

THE FOLLOWING (22) PILES WERE DRIVEN TO REFUSAL AT DEPTHS RANGING FROM 49 TO 58.5 FEET: E-10, D-10, E-12, E-13, K-14, J-14, I-14, H-14, G-14, L-16, K-15, K-16 J-15, I-15, I-13, H-13, D-8, D-7, D-9, F-13, G-13, E-11.

THE FOLLOWING (2) PILES WERE DRIVEN THE LENGTH OF THE PILE, HOWEVER, DID NOT REACH REFUSAL AND WILL REQUIRE SPLICING: M-15, L-15

IT APPEARS THAT MOST OF THE PILES NORTH OF AND INCLUDING GRIDLINE "K" WILL NEED TO BE SPLICED.

AIR QUALITY MONITORING DETERMINED LEVELS OF ORGANIC AND GAS VAPORS TO BE LESS THAN 10 PPM DURING THE DAY.

I LEFT THE SITE AT 3:30 PM

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Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-002-01
	Project: KOPPERS, INC.		Date: 5/20/99
	Owner:		Report No. 4
Prepared by: NICOLE BLANCHARD	Location: PORTLAND, OR	Arrival Time: 7:00 AM	Page: 1 of 1
Purpose of Visit: PILE INSTALLATION OBSERVATION	Weather: PARTLY SUNNY, 65°	Depart. Time: 3:30 PM	Permit No.

I ARRIVED AT THE SITE TO OBSERVE CLOSED-END, STEEL PILE INSTALLATION. THE PILES WERE 16-INCH O.D. AND DRIVEN TO A REFUSAL CRITERIA OF 250 BLOWS/FT. DEWITT WAS THE CONTRACTOR DRIVING THE PILES.

A TOTAL OF (4) PILES WERE DRIVEN TO REFUSAL CRITERIA, ONE (1) OF WHICH REQUIRED SPLICING. THE PILES DRIVEN TO DEPTHS RANGING FROM 51'-8" TO 63'-5", ARE AS FOLLOWS: P-7, F-11, F-12, G-12

AN ADDITIONAL (6) PILES WERE DRIVEN TODAY, HOWEVER, DID NOT MEET REFUSAL CRITERIA AND WILL REQUIRE SPLICING. THE PILES ARE AS FOLLOWS: O-13, P-8, P-12, P-11, P-10, P-9

AFTER REVIEWING THE PLANS, SPECIFICATIONS AND SPEAKING WITH SAM MOSS OF KPFF, WE DETERMINED THAT THE WELD DETAIL AND INSPECTION REQUIREMENTS WERE NOT ACCURATE. A FULL-PENETRATION WELD WITH SPECIAL INSPECTIONS IS ACTUALLY REQUIRED PRIOR TO DRIVING SPLICED PILES. CHARLIE NORRIS OF KOPPERS SCHEDULED THE WELD INSPECTOR TO BE ON-SITE TOMORROW MORNING.

DEWITT SPENT THE MAJORITY OF THE DAY CUTTING, WELDING, AND MOVING PILES. THEY EXPERIENCED DELAY THIS MORNING WITH WELDERS NOT ARRIVING AT THE SITE AND WELDING EQUIPMENT SET-UP/RETRIEVAL.

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Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-002-01
	Project: KOPPERS, INC.		Date: 5/21/99
	Owner: NNG. Co		Report No. 5
Prepared by: NICOLE BLANCHARD	Location: PORTLAND, OR	Arrival Time: 7:00 AM	Page: 1 of 1
Purpose of Visit: - PILE INSTALLATION CONSTRUCTION MONITORING	Weather: SUNNY, 68°	Depart. Time: 3:35 PM	Permit No. RLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM. TO OBSERVE THE INSTALLATION OF DRIVEN, CLOSED-END, PIPE PILES. DEWITT CONSTRUCTION SPENT THE MORNING WELDING THE SPLICES ON THE PILES. PSI TESTING SERVICES WAS AT THE SITE TO ULTRASOUND THE WELDED SPLICES.

THREE(3) OF THE PILE WELDS WERE APPROVED BY PSI AND DRIVEN TO REFUSAL. THESE PILES WERE PREVIOUSELY DRIVEN TO THE MAXIMUM DEPTH OF THE ORIGINAL PILE (60'-0") THEN SPLICED. THE FOLLOWING IS A SUMMARY OF THESE PILES:
O-13, P-11, M-15

THE FOLLOWING (7) PILES WERE DRIVEN TO THE MAXIMUM DEPTH OF THE PILE, AND WILL REQUIRE SPLICING AND RE-DRIVING TO REACH REFUSAL DEPTH: N-14, O-12, O-11, O-10, O-9, O-8, O-7

THE FOLLUWING (2) PILES WERE DRIVEN TO REFUSAL CRITERIA AT APPROXIMATELY 50-FEET:
E-7, E-8

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Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS INDUSTRIES		Date: 5/24/99
	Owner: NNG Co.		Report No. 6
Prepared by: NICOLE BLANCHARD	Location: NW St. Helens PORTLAND, OR	Arrival Time: 7:00	Page: 1 of 1
Purpose of Visit: CONSTRUCTION MONITORING PILE INSTALLATION	Weather: SUNNY, 85°	Depart. Time: 3:15	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM TO OBSERVE THE INSTALLATION OF PILES. DEWITT CONSTRUCTION WAS DRIVING 16-INCH O.D., CLOSED-END PILES

DEWITT WAS HAVING DIFFICULTIES LOCATING THE CENTER OF PILES INDICATED BY PAINT MARKS. HARDER (GENERAL CONTRACTOR) HAD RELOCATED AND REPAINTED THE PILE LOCATIONS, HOWEVER, VISUAL OBSERVATION INDICATED THAT THE "NEW" LOCATES WERE NOT ACCURATE TO SPECIFICATION REQUIREMENTS. THE PILE CENTERS MUST BE WITHIN 3-INCHES OF THE DRAWING LOCATIONS AND THE "NEW" LOCATES WERE OBVIOUSELY NOT WITHIN THESE TOLERANCES. HARDER PULLED STRINGLINES AND RELOCATED THE PAINT MARKS INDICATING PILE LOCATIONS. DEWITT INDICATED TO HARDER THEY WOULD LIKE SURVEYED HUBS MARKING THE PILE LOCATIONS AS OPPOSED TO PAINT MARKS.

DEWITT HAD (3) WELDERS ON-SITE SPLICING PILES AND INTERNATIONAL TESTING WAS ULTRASONICALLY TESTING THE SPLICE WELDS. NO SPLICED PILES WERE DRIVEN TODAY.

THE FOLLOWING (6) PILES WERE DRIVEN TO REFUSAL CRITERIA TODAY: F-9, F-10, E-9, I-12, H-12, J-13

THE FOLLOWING (11) PILES WERE DRIVEN TODAY AND WILL REQUIRE SPLICES TO REACH REFUSAL CRITERIA: N-7, N-8, N-9, M-14, L-14, K-13, L-13, N-12, N-11, N-10, M-13

I LEFT THE SITE AT 3:15 PM.

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Attachments:

Distribution:

Signed: Nicole Blanchard

GEI 45-87

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS INDUSTRIES		Date: 5/25/99
	Owner: NNG Co.		Report No. 7
Prepared by: NICOLE BLANCHARD	Location: PORTLAND, OR	Arrival Time: 7:00	Page: 1 of 1
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: SUNNY, 75°	Depart. Time: 3:30	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM.

THE FOLLOWING IS A SUMMARY OF (14) PILES DRIVEN TO REFUSAL CRITERIA: B-5, B-6, B-4, A-5, A-6, F-7, D-6, E-6, F-8, J-12, C-3, C-6, C-5, C-4

THE FOLLOWING PILE (1) WAS DRIVEN, HOWEVER, DID NOT MEET REFUSAL CRITERIA AND WILL REQUIRE SPLICING: K-12

This report presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications throughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS INDUSTRIES		Date: 5/26/99
	Owner: NNG Co.		Report No. 8
Prepared by: NICOLE BLANCHARD	Location: PORTLAND, OR	Arrival Time: 7:00 AM	Page: 1 of 1
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: SUNNY, 78°	Depart. Time: 3:30 PM	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM TO OBSERVE PILE INSTALLATION.

THE FOLLOWING FOUR (4) SPLICED, WELD-APPROVED, PILES WERE DRIVEN TO REFUSAL TODAY: O-11, O-12, N-13, P-12. THE PILES REQUIRED MANY EXTRA BLOWS TO RE-DRIVE TO REFUSAL, HOWEVER, I DID NOT OBSERVE ANY DEGRADATION IN THE INTEGRITY OF THE PILES (I.E. BUCKLEING, BENDING, DEFLECTION, ETC.).

THE FOLLOWING SIX (6) PILES WERE DRIVEN TO REFUSAL. THESE PILES RANGED IN DEPTH FROM 49'-4" TO 52'-6" FEET AND DID NOT REQUIRE SPLICING: D-4, D-5, D-3, D-2, E-5 E-4.

THE FOLLOWING TWELVE (12) PILES WERE DRIVEN TODAY. THE PILES DID NOT REACH REFUSAL AND WILL REQUIRE SPLICING: L-11, M-12, L-12, N-3, N-4, N-5, N-6, O-4, O-5, O-6, P-5, P-6

This report presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications throughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS INDUSTRIES		Date: 5/27/99
	Owner: NNG Co.		Report No. 9
Prepared by: NICOLE BLANCHARD	Location: PORTLAND, OR	Arrival Time: 7:00	Page: 1 of 1
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: SUNNY, 78°	Depart. Time: 3:30	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM TO MONITORING THE INSTALLATION OF CLOSED-END, 16" STEEL PILES.

THE FOLLOWING IS A SUMMARY OF (16) SIXTEEN PILES PREVIOUSELY DRIVEN, SPLICED, INSPECTED* (WELDS) AND RE-DRIVEN TO REFUSAL: K-13, N-11, N-12, N-14, L-15, L-14, M-14, M-13, L-13, N-10, N-9, O-10, O-9, P-9, P-10, P-8.

THE FOLLOWING THREE (3) PILES WERE DRIVEN TO APPROXIMATELY 55-56 FEET AND WILL REQUIRE SPLICING TO REACH REFUSAL: M-10, M-11, M-9

*WELDS WERE INSPECTED FULL-TIME BY PSI/BRAUN INTERTEC AND ULTRASONICALLY TESTED BY INTERNATIONAL TESTING. AIR QUALITY MONITORING BY MYSELF SHOWED LEVELS OF GAS AND ORGANIC VAPORS TO BE BETWEEN 2 TO 6 PPM (P.M.).

I LEFT THE SITE AT 3:30 PM.

This report presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications throughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

17

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS INDUSTRIES		Date: 5/28/99
	Owner: NNG Co.		Report No. 10
Prepared by: NICOLE BLANCHARD	Location: PORTLAND, OR	Arrival Time: 7:00 AM	Page: 1 of 1
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: CLOUDY, 55°	Depart. Time: 2:45 PM	Permit No. BLD98-03577

I ARRIVED AT THE SITE TO OBSERVE PILE INSTALLATION AT 7:00 AM.

AT THE REQUEST OF CHARLIE NORRIS OF KOPPERS INDUSTRIES I CONDUCTED AIR QUALITY MONITORING USING A CALIBRATED MICROTIP MP-1000 (PHOTOVAC). THE FOLLOWING IS A SUMMARY OF MY RESULTS THROUGHOUT THE DAY:

LOCATION	TIME	READING
PILE I-6	10:41 AM	1.9 PPM
PILE D-13	12:00 PM	2.1 PPM
PILE F-16	1:16 PM	1.0 PPM
PILE M-10	2:00 PM	2.4 PPM

THE FOLLOWING (14) PILES WERE DRIVEN TO REFUSAL CRITERIA TODAY: F-2, E-1, E-2, E-3, O-6, F-5, P-6, F-6, O-7, N-7, O-8, N-8, F-3, F-4

THE FOLLOWING (5) PILES WERE DRIVEN TODAY, HOWEVER, DID NOT REACH REFUSAL CRITERIA AND WILL REQUIRE SPLICING: O-5, M-5, M-6, M-7, M-8

I LEFT THE SITE AT 2:45 PM.

This report presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications throughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS IND.		Date: 6/1/99
	Owner: NNG Co.		Report No. 1
Prepared by: NICOLE BLANCHARD	Location: NW INDUSTRIAL PORTLAND, OR	Arrival Time: 7:00 AM	Page: 1 of 1
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: CLOUDY, 55°	Depart. Time: 3:30 PM	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM.

THE FOLLOWING (11) PILES WERE INSTALLED TO REFUSAL CRITERIA:

PILE	DEPTH	SPLICED (x)	REFUSAL BLOWS
M-11	62'-0"	X (5/27)	80/1"
M-12	60'-0"	X (5/26)	60/1"
M-10	59'-11"	X (5/27)	60/1"
J-11	58'-1"	no	34/1"
K-10	57'-8"	no	149/8"
L-11	60'-2"	X (5/26)	80/1"
K-3	58'-8"	no	30/1"
M-4	58'-6"	no	30/1"
K-11	58'-0"	no	30/1"
L-12	59'-11"	X (5/26)	40/1"
K-12	58'-10"	X (5/25)	40/½"

THE FOLLOWING (6) PILES WERE DRIVEN, HOWEVER, HAVE NOT REACH REFUSAL CRITERIA AND WILL REQUIRE SPLICING: M-3, M-2, L-3, L-4, L-2, L-10

I LEFT THE SITE AT 3:30 P.M.

This report presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications throughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5023-001-07
	Project: KOPPERS, IND.		Date: 6/2/99
	Owner: NNG Co.		Report No. 12
Prepared by: NICOLE BLANCHARD	Location: NW INDUST PORTLAND, OR	Arrival Time: 7:00 AM	Page: 1 of 1
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: PARTLY SUNNY, 58°	Depart. Time: 3:45 PM	Permit No. BLD98-03757

I ARRIVED THE SITE AT 7:00 AM TO OBSERVE THE INSTALLATION OF 16-INCH O.D., CLOSED-END, 1/2-INCH WALL, PIPE PILES.

THE FOLLOWING SEVETEEN (17) PILES WERE INSTALLED TO REFUSAL CRITERIA:

PILE #	DEPTH TO REFUSAL	SPLICE (X)	REFUSAL BLOWS
L-9	58'-8"	no	30/1"
I-9	55'-1"	no	40/1"
J-9	56'-7"	no	50/1"
J-10	57'-5"	no	20/1"
M-9	59'-0"	X (6/2)	60/1"
L-10	58'-1"	no	62/1"
I-11	57'-6"	no	125/6"
M-8	59'-2"	X (5/28)	172/2"
I-10	55'-6"	no	20/1"
H-11	54'-1"	no	30/1"
L-6	53'-1"	no	67/1"
L-7	58'-4"	no	20/1"
L-8	58'-2"	no	59/2"
M-7	59'-0"	X (5/28)	352/12"
K-8	57'-2"	no	20/1"
G-11	54'-5"	no	30/1"
K-9	57'-10"	no	20/1"

THE FOLLOWING FOUR (4) PILES WERE DRIVEN TODAY, HOWEVER, WILL REQUIRE SPLICING TO REACH REFUSAL CRITERIA: L-5, K-2, L-1, K-1

I LEFT THE SITE AT 3:45 PM

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Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS INDUSTRIES		Date: 6/3/99
	Owner: NNG Co.		Report No. 13
Prepared by: NICOLE BLANCHARD	Location: PORTLAND, OR	Arrival Time: 7:00 AM	Page: 1 of 1
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: MOSTLY SUNNY, 68°	Depart. Time: 2:45 PM	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM.

THE FOLLOWING SEVENTEEN (17) PILES WERE INSTALLED TO REFUSAL CRITERIA TODAY:

PILE #	DEPTH TO REFUSAL	SPLICE (X)	REFUSAL BLOWS
N-6	58'-8"	X (5/26/99)	30/1"
K-6	57'-8"	no	30/1"
G-8	54'-7"	no	30/1"
M-5	58'-4"	X (5/28/99)	39 1/4"
H-8	55'-7"	no	30/1"
N-4	58'-8"	X (5/26/99)	30/0"
G-9	52'-7"	no	30/1"
H-9	53'-10"	no	30/1"
O-4	60'-5"	X (5/26/99)	60/1"
I-8	55'-5"	no	30/1"
J-8	57'-0"	no	20/1"
N-5	58'-7"	X (5/26/99)	30/1/4"
G-10	53'-2"	no	61/2"
K-7	57'-11"	no	30/1"
H-10	54'-2"	no	75/2"
M-6	59'-6"	X (5/20/99)	20/0"
P-5	61'-1"	X (5/26/99)	30/0"

THE PILES ARE SCHEDULED TO BE FILLED WITH CONCRETE ON MONDAY DEWITT MAY NOT BE FINISHED WITH PILE INSTALLATION AND MAY NEED TO DRIVE AND POUR ON MONDAY.

THE HAMMER HAD A MECHANICAL FAILURE AT APPROXIMATELY 2:30 PM. DEWITT WAS DOWN FOR THE REMAINDER OF THE DAY REPAIRING THE HAMMER.

I LEFT THE SITE AT 2:45 PM.

...port presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications ...hout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

GEI 45-87

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS INDUSTRIES		Date: 6/4/99
	Owner: NNG Co.		Report No. 14
Prepared by: NICOLE BLANCHARD	Location:NW Industrial Portland, OR	Arrival Time: 7:00	Page: 1 of 2
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: MOSTLY SUNNY 60°	Depart. Time: 4:00	Permit No. BLD98.03757

THE FOLLOWING TWENTY-NINE (29) PILES WERE DRIVEN TO REFUSAL CRITERIA TODAY:

PILE #	DEPTH DRIVEN (FT)	SPLICED (X)	REFUSAL BLOW COUNT
G-7	54'-0"	no	20/1"
K-1	58'-6"	X (6/2/99)	20/6"
L-1	60'-0"	X (6/2/99)	35/¼"
K-2	59'-11"	X (6/2/99)	20/¼"
L-2	60'-1"	X (6/1/99)	65/1"
L-3	58'-9"	X (6/1/99)	20/¼"
M-3	59'-0"	X (6/1/99)	20/0"
M-2	59'-0"	X (6/1/99)	30/¼"
N-3	60'-1"	X (5/26/99)	53/1"
L-5	59'-7"	X (6/2/99)	60/0"
L-4	57'-10"	X (6/1/99)	30/0"
K-5	57'-11"	no	30/1"
K-4	58'-6"	no	20/1"
H-7	55'-4"	no	20/1"
I-7	56'-3"	no	20/1"
J-7	57'-10"	no	30/1"
G-6	55'-7"	no	20/1"
H-6	56'-7"	no	30/1"
I-6	55'-10"	no	20/1"
J-6	56'-8"	no	20/1"
G-5	54'-10"	no	30/1"
H-5	56'-6"	no	30/1"
I-5	56'-5"	no	30/1"
J-5	57'-5"	no	20/1"
G-4	53'-11"	no	20/1"
H-4	57'-4"	no	30/1"

(CONTINUED)

Report presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications throughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

GEI 45-87

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT		File No. 5823-001-02
	Project: KOPPERS INDUSTRIES		Date: 6/14/99
	Owner: NNG Co.		Report No. 14
Prepared by: NICOLE BLANCHARD	Location: NW Industrial Portland, OR	Arrival Time: 7:00	Page: 2 of 2
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: mostly sunny, 60°	Depart. Time: 4:00	Permit No. BLD98-03757

PILE #	DEPTH DRIVEN (FT)	SPLICED (X)	REFUSAL BLOW COUNT
F-4	55'-10"	no	30/1"
J-4	57'-0"	no	20/1"
G-3	53'-11"	no	26/1"

*PILE H-3 WAS STARTED TODAY, HOWEVER, THE HAMMER RAN OUT OF GAS. PILE H-3 WILL BE DRIVEN TO REFUSAL CRITERIA MONDAY MORNING 6/7/99.

PILE M-10 HAS APPROXIMATELY 5 TO 6 FEET OF SAND IN THE BASE OF THE PILE. THIS IS MOST LIKELY CAUSED BY A BREACH NEAR THE BASE OF THE PILE DURING DRIVING. THE PILE REACHED BEARING/REFUSAL REQUIREMENTS AND NOTHING UNUSUAL WAS NOTED WHEN DRIVING.

Report presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications throughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

GeoEngineers Inc. 7504 SW Bridgeport Road Portland, Oregon 97224 (503) 624-9274	FIELD REPORT	File No. 5823-001-02
	Project: KOPPERS INDUSTRIES	Date: 6/7/99
	Owner: NNG Co.	Report No. 15
Prepared by: NICOLE BLANCHARD	Location: NW Industrial, Portland, OR / Arrival Time: 7:00	Page: 1 of 1
Purpose of Visit: PILE INSTALLATION CONSTRUCTION MONITORING	Weather: Cloudy/rain, 58° / Depart. Time: 12:00	Permit No. BLD98-03757

I ARRIVED AT THE SITE AT 7:00 AM.

THE FOLLOWING TWELVE (12) PILES WERE DRIVEN TO REFUSAL CRITERIA TODAY:

PILE #	DRIVEN DEPTH TO REFUSAL (FT)	SPLICE (X)	REFUSAL BLOW COUNT
H-3	56'-10"	NO	20/1"
I-3	58'-1"		23/1"
J-3	58'-10"		30/1"
G-2	53'-2"		70/2"
H-2	54'-9		20/1"
I-2	57'-2"		47/2"
J-2	59'-8"		20/1"
F-1	52'-3"		20/1"
G-1	53'-11"		30/1"
H-1	54-7"		20/1"
I-1	58'-5"		20/1"
J-1	59'-2"		80/2"

BASED ON MY OBSERVATIONS AND FIELD DATA, ALL 216 PILES HAVE BEEN DRIVEN TO REFUSAL CRITERIA OF 250 BLOWS/FT AT AN AVERAGE ENERGY OF APPROXIMATELY 35,000 FT-LBS.

HARDER AND DEWITT PLAN ON FILLING THE PILES WITH CONCRETE STARTING TOMORROW.

eport presents opinions formed as a result of our observation of activities relating to geotechnical engineering. We rely on the contractor to comply with the plans and specifications ...oughout the duration of the project irrespective of the presence of our representative. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. Our firm will not be responsible for job or site safety on this project.

Attachments:

Distribution:

Signed: Nicole Blanchard

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

File No. P97-10
September 16, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

COPY

Attention: Special Inspection Section

Subject: Koppers Industries, Inc. – BLDG98-03757

Enclosures:

- Contractor's "Field Inspection Check List (API)" Job 2380 dated 9-10-99
- Contractor's "Vacuum Test Procedure for Tank Bottom" dated 9-10-99
- Contractor's "Leak Test Procedure for Corner Weld" dated 9-10-99
- Contractor's "Inspection Procedure for Reinforcement Plate Welds" dated 9-10-99

Gentlemen:

We enclose copies of the tank fabrication contractor's (Morse Construction Group) inspection and test records. These Contractor inspections and tests were part of the Structural Special Inspection & Observation Program.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: J. Cameron McKernan

J. Cameron McKernan, President

cc: Koppers Industries, Inc.
Charlie Norris
Bill Meisinger
Amos Kamerer

FIELD INSPECTION CHECKLIST (API)

JOB: ~~2340 W.A. 230~~ 2380 FIELD SUP'T: ~~Bruce Barlows~~ Leo Tribolet

ITEM	INSPECTION TYPE	Req.	Resp.	Done	DATE / COMMENTS
CONCRETE RINGWALL	VISUAL	X	P.Mgr		
" " " "	SHOOT FOR LEVEL	X	P.Mgr	X	Out of Level
" " " "	BOLT RAD./PLUMB	X	P.Mgr	X	OK
UNDERGROUND PIPING	ORIENTATIONS OK	X	Sup't.		
SUMPS	VISUAL	X	Sup't.		
" "	DIESEL	X	Sup't.		
BOTTOM WELD	VISUAL	X	Sup't.	✓	8-28-99
" " " "	VACUUM BOX	X	Sup't.	✓	8-28-99
CORNER WELD	VISUAL	X	Sup't.	✓	
" " " "	DIESEL	*	Sup't.	✓	* must do if no vacuum test 8-2-99
" " " "	VACUUM	*	Sup't.		* must do if no diesel test
" " " "	AIR/SOAP (API-620)		Sup't.		
SHELL JOINTS	VISUAL	X	Sup't.	✓	
" " " "	X-RAY		Sup't.	✓	
" " " "	TANK HYDROTEST	X	Sup't.		
ANCHOR CHAIRS	VISUAL	X	Sup't.	✓	9-10-99
" " " "	M.P.				
MECHANICAL JOINTS	WRENCH TIGHTEN	X	Sup't.	✓	Seals in? 9-10-99
" " " "	HYDROTEST	X	Sup't.		
NOZZLES	VISUAL	X	Sup't.	✓	Plumb? Bolt orient. OK? 9-9-99
" "	X-RAY / M.P.		Sup't.		
MANHOLE / CLEAN-OUT	VISUAL	X	Sup't.	✓	9-9-99
" " " "	VACUUM	X	Sup't.		
" " " "	COVERS BOLTED	X	Sup't.		Incomplete pending paint? (y/n):
DOUBLER PLATES	VISUAL	X	Sup't.	✓	9-9-99
" " " "	AIR TEST	X	Sup't.	✓	9-9-99
ROOF	VISUAL	X	Sup't.	✓	9-9-99
" "	VACUUM BOX		Sup't.		
BOLTS-Flanges & Other	WRENCH TIGHTEN	X	Sup't.		
LADDER-CLIP WELDS	VISUAL	X	Sup't.	✓	9-9-99
INTERNAL FLOATS	VISUAL	X	Sup't.		Confirm adequate buoyancy
TANK PLUMBNESS	VISUAL	X	Sup't.		See QA chart.
" " ROUNDNESS	VISUAL		Sup't.		See QA chart.
SAFETY CLIMBS	CONFIRM PRESENT	X	Sup't.		(I)nstalled or (P)ainter resp.?___
LEVEL GAUGE	INSTALLED?	X	Sup't.		
NUTS/BOLTS/GASKETS	CONFIRM / COUNT	X	Sup't.		Location:
J-Shack/ SaniKan/ Phone	Called for pick-up?	X	Sup't.		Gas cylinder return count OK? (y/n)___
SITE CLEANED UP?	VISUAL	X	Sup't.	✓	9-10-99

REPORT SUBMITTED BY: Leo Tribolet (Sup't.) DATE: 9-10-99

REVIEWED BY: _____ (P.Mgr) DATE: _____

VACUUM TESTING PROCEDURE FOR API 650 / AWWA

Koppers Tank 79' Dia. x 57' DATE: 9-10-99

SURFACE PREPARATION

Prior to testing, perform a visual inspection for proper contour, size and cleanliness, in accordance with the proper standard

TESTING SEQUENCE

1. Apply a soap solution to the area to be tested.
2. Place the vacuum box over the coated area.
3. Apply a partial vacuum of at least 2 psi but not greater than 5 psi for a minimum of 10 seconds.
4. Inspect the area for bubbles or foam.
5. Repair and re-test any leaks.

DATE	AREA TESTED	RESULTS
9-28-99	- Bottom	acceptable

Leo Thibodeaux

LEAK TEST
PROCEDURE FOR
API 650/653 and AWWA Storage Tanks

Koppers Tank 79' Dia. x 57'

DATE: 9-10-99

SURFACE PREPARATION

Prior to testing, perform a visual inspection for proper contour, size and cleanliness, in accordance with applicable Code/Standard.

TESTING SEQUENCE

1. Apply a diesel to the area to be tested.
2. Allow test area to dwell for a minimum of (4) hours
3. Inspect for damp spots
5. Repair and re-test any leaks.

DATE	AREA TESTED	RESULTS
8-2-99	Corner Weld	acceptable

INSPECTED BY: Leo Tinbouhet

INSPECTION PROCEDURE FOR REINFORCEMENT-PLATE WELDS

Koppers Tank 79' Dia x 57' API 650

SURFACE PREPARATION

Prior to testing perform a visual inspection for proper contour, size and cleanliness.

TESTING SEQUENCE

1. Apply **15 psi MAX.** air pressure between the tank shell and the reinforcement plate on each opening, using the telltale hole..
2. Apply a soap film solution to all attachment welding around the reinforcement, both inside and outside.
3. Inspect for leaks. If no leaks are found, release the air pressure.
4. Repair any leaks and re-test.

TEST DATE	NOZZLE / MANHOLE	RESULTS
8-30-99	16" over flow	acceptable
9-9-99	2-36" agitators	acceptable
9-9-99	4-4" Cir. lines	acceptable
9-9-99	2-6" out Lets	acceptable
9-9-99	4-3" heaters	acceptable

9-10-99 Leo Thibault

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

File No. P97-10
September 10, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

COPY

Attention: Special Inspection Section

Subject: Koppers Industries, Inc. – BLDG98-03757

Enclosures: Structural Observations Report dated September 10, 1999

Gentlemen:

We forward the enclosure for your information and record.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: J. Cameron McKernan, President

cc: Koppers Industries, Inc.
Charlie Norris
Bill Meisinger
Amos Kamerer

J. CAMERON McKERNAN COMPANY

Engineering + Naval Architecture

825 NE 20th Avenue, Suite 110 * Portland, Oregon 97232 * (503) 232-7211 * FAX (503) 232-7658

STRUCTURAL OBSERVATIONS REPORT

Project Name: Liquid Pitch Storage Tank **Job No:** P97-10

Address: 7540 NW St. Helens Road **Permit No:** BLDG98-03757

Portland, Oregon 97210 **Date:** September 10, 1999

COPY

August 30, 1999

Visited site. Observed tank construction in progress. Bottom plates were set and welded-up except around temporary access (where two side plate panels were left out). Except for the temporary access, all side courses were erected and welded out. All roof rafters were installed. The roof center post was installed. Roof panels were about 75 percent installed. All nozzles and permanent access openings were installed.

I carefully observed all parts of the tank structure. I used binoculars to look at inaccessible parts such as the roof connections. I found all parts in accordance with Morse Construction Group drawings No. 23800101 sheets 1 through 50.

September 2, 1999

Visited site. Observed tank construction in progress. The tank heating coils were set and the heating coil supports were being installed. Most of the outside stairways and upper access platforms were set but not complete. The pipe supports on the tank were attached. The roof panels were complete. The fabricator's personnel were in the process of closing up the temporary access. I found the work in accordance with the Morse Construction Group drawings No. 23800101 sheets 1 through 50.

REGISTERED PROFESSIONAL ENGINEER 10394 OREGON DEC. 14, 1979 J. CAMERON McKERNAN

9-10-99

EXPIRES: 12-31-00

J. Cameron McKernan
Engineer of Record

Boiler & Pressure Vessel Data Report

Department of Consumer & Business Services
Building Codes Division
1535 Edgewater NW, Salem, OR 97310
(503) 373-1299 or (503) 373-7499

6293

This temporary operation permit is valid for 90 days from the inspection date. ORS 480.585(3) states no person shall operate a boiler or pressure vessel without a valid permit; a violation may result in fines up to $1,000 (ORS 480.665).

OWNER/RESPONSIBLE PARTY INFORMATION

Owner/responsible party name: Koppers Industries Inc.			Responsible party no.: /
Address (street or P.O. Box): 7540 NW St. Helens Rd			County: Mult
City: Portland	State: OR		ZIP: 97210
Agency of record: (STATE) Possiable (CIGNA)			

SITE INFORMATION

Site name: Koppers Industries Inc.			Site no.: /
Address (street or P.O. Box): 7540 NW St. Helens Rd			County: Mult.
City: Portland	State: OR		ZIP: 97210
Contact name: T. J.	Phone:		Manned: NO

VESSEL INFORMATION

Location: Control Room AREA					
NB no.: 52	Serial no.: 96398-01		OR State no.: /		
Mfr.: McDowell Welding	Year of Mfg.: 1999	Code: U2E		Type: ORES	
DIA (inches): 5' 11"	Length (inches): 9' 11"		HS: /		
KW: /	MAWP: 40 PSI		SV set: 27.5		
CAP: 435 GPM	ASME SYM: U	Fired: NO	Fix/port: Fix		
PA: NO	Service: Storage		Auto alarm: NONE		
Installation permit no.: I99-10624	Installation company: McDowell Welding				
Special instructions:					

INSPECTION INFORMATION

Hydro date: /	PSI: /		I/E: E		
Issue permit: ☑ Yes	Minor req.: ☐ Yes		Major req.: ☐ No		
Inspection time: .5	Travel time: .5				
Inspector signature: Clay Rhodes		Insp. no.: 11488		Date: 11-12-99	

White - BCD Yellow - Posting

DEPARTMENT OF CONSUMER & BUSINESS SERVICES

440-2596 (7/94/COM)

Application for a Permit to:

☒ Install ☐ Repair ☐ Alter
☐ Welded or ☒ Non-Welded

Department of Consumer & Business Services
Building Codes Division, Boiler Section
1535 Edgewater NW, Salem, OR
Mailing address: PO Box 14470, Salem OR 97309
(503) 373-7499, Fax: (503) 378-2322

FOR DEPARTMENT USE ONLY	
Permit no.:	I99 – 10624
☒ Approved	☐ Denied
Date:	10/22/99
By:	

MWP# 92070

Applicant business name: MCDOWELL WELDING & PIPE FITTING, INC.
Address 1: 4000 N.W. SAINT HELENS ROAD
Address 2:
City: PORTLAND State: OREGON ZIP: 97210

(503) 243-3443

Submit this application to the office of the Chief Inspector of the Boiler Section. (See reverse side for ORS 480.630, licensing and certification of persons installing, altering, or repairing boilers or pressure vessels; examination; fee, etc.).

APPLICANT INFORMATION

Boiler/pressure vessel contractor business license no.: 899-2363	Construction Contractors Board registration no.:	Phone: (503) 241-2410
R stamp no.: 4291	O certificate no.:	Fax: (503) 248-9464

List the name and Oregon certificate number of *all* class 1 through class 6 mechanics who will perform work on this project (Attach additional sheet if necessary).

Name: STEVE HINDS IV License no.: E97-6660

It is the applicant's responsibility to obtain approval from the authorized inspector prior to commencing work.

Name (print): TERRY ALLEN

Applicant's signature: Terry Allen Date: 10-22-99

OWNER/USER INFORMATION

Name: KOPPERS INDUSTRIES INC.	Phone:

Address and vessel location: 7540 N.W. ST HELENS ROAD Portland Oregon 97210

INSTALLATION, ALTERATION, OR REPAIR INFORMATION

Type of boiler/pressure vessel to be installed/repaired/altered (if altered, submit drawings and calculations): HORIZONTAL HOT OIL VESSEL

Size and length of piping to be installed:

Describe nature of repair (attach additional sheets if necessary):

Authorized inspector – Deputy/Special	Inspector signature	Employed by:	Phone:
CLAY RHODES	Clay Rhodes 11-10-99	STATE OF OREGON	

AOR- 45 (CIGNA)

DEPARTMENT OF CONSUMER & BUSINESS SERVICES
440-2502 (12/97/COM)

Koppers018863

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL MANAGEMENT

April 9, 1999

Ms. Sandra Hart
Northwest Natural
220 NW Second Avenue
Portland, Oregon 97209

Project No. 2708-99

Subject: Disposal Profiling and Solid / Hazardous Waste Determination for the Planned Tank Foundation Excavation, Koppers Industries, Inc., 7540 NW St. Helens Road, Portland, Oregon, dated April 9, 1999

Dear Ms. Hart:

Enclosed please find one copy of the report summarizing results of disposal profiling activities conducted for soil to be excavated for the construction of the Kopper's Industries, Inc. planned two million gallon coal tar storage tank on the referenced property.

As concluded in the enclosed report, the waste profiling indicates that the soils, once excavated, may be managed by a facility permitted to dispose of or treat non-hazardous petroleum-contaminated soils.

I have provided a copy of this report to Mr. Amos Kamerer of Koppers Industries, Inc. for his use in coordinating for the permitting and disposal of the soil. Thank you for allowing HAI to serve you in this matter.

Sincerely,

Robert Ede
Sr. Project Manager

enclosure

c: Mr. Amos Kamerer, Koppers Industries, Inc.
Mr. Michael Hayward, Northwest Natural, Inc.

434 NW SIXTH AVENUE, SUITE 203 • PORTLAND, OREGON 97209-3600
503/796-0717 OFFICE • 503/227-2209 FAX

Recycled Recyclable

DISPOSAL PROFILING AND SOLID/HAZARDOUS WASTE DETERMINATION: PLANNED TANK FOUNDATION EXCAVATION

Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon

April 9, 1999

HAHN AND ASSOCIATES, INC.
Environmental Management

434 NW 6th Avenue, Suite 203
Portland, Oregon 97209-3600
503/796-0717 • 503/227-2209 FAX

Recycled Recyclable

DISPOSAL PROFILING AND SOLID/HAZARDOUS WASTE DETERMINATION: PLANNED TANK FOUNDATION EXCAVATION

Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon

April 9, 1999

Prepared for:
Northwest Natural
Portland, Oregon

Prepared by:

Hahn and Associates, Inc.
Portland, Oregon

HAI Project No. 2708-99

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL MANAGEMENT

April 9, 1999

Ms. Sandra Hart
Northwest Natural
220 NW Second Avenue
Portland, Oregon 97209

HAI Project No. 2708-99

SUBJECT: Hazardous Waste Determination and Disposal Profiling, Soils to be Excavated for Construction of New Tank Foundation, Koppers Industries, Northwest Natural – Gasco Site, 7540 and 7900 NW St. Helens Road, Portland, Oregon

Dear Mr. Hart:

At your request and at the request of Koppers Industries, Inc. (Koppers), Hahn and Associates, Inc. (HAI) has completed soil sampling activities at the above referenced site necessary such that a Hazardous Waste Determination and Soil Disposal Profiling could be completed for soils that are located within an area of planned soil excavation. The excavation is necessary such that supports for a new tank foundation may be appropriately placed.

The planned excavation will extend to within 6 feet below ground surface (bgs) across an area measuring approximately 100 feet by 100 feet near the existing Koppers-area tank farm, generating an estimated 2,000 cubic yards of soil. Figure 1 is a Site Map depicting the location of the proposed tank foundation excavation, as well as the location of soil borings and monitoring wells that have been installed as part of ongoing Remedial Investigation (RI) activities at the site. Figure 2 depicts soil probe boring locations that were installed within the planned area of excavation such that soil samples could be collected for disposal profiling / hazardous waste determination purposes.

A brief description of site background, as well as soil sampling procedures and the results of the analytical testing, are provided below. The specific scope of the sampling event (number of samples and analytical testing requirements) was pre-approved by the intended disposal facility (Waste Management, Inc.) during a telephone conversation on April 2, 1999 (Mr. Rob Ede to Ms. Kristin Clayton).

General Site History

The site was the former location of the Portland Gas and Coke Company manufactured gas plant oil gasification facility from 1913 to 1956. Manufacturing processes at the site have involved the generation of town gas and pressed lampblack briquettes, aromatic generation and light oil recovery, tar recovery and refining, and the production of electrode grade coke and high Btu gas. Northwest Natural began construction of a liquefied natural gas (LNG) plant at the site in the late 1960's, at which time a majority of the old gasification plant facilities were demolished.

Koppers operated a coal tar pitch manufacturing facility at the southern portion of the former gasification facility from 1966 to 1973. Koppers currently uses the facility as a terminal for the distribution of coal tar oils. It is within the Koppers portion of the site that the proposed tank foundation excavation will take place. The area surrounding the proposed tank foundation excavation also corresponds to the area of the Light Oil Plant for the former Portland Gas and Coke Company manufactured gas plant oil gasification facility.

434 NW SIXTH AVENUE, SUITE 203 • PORTLAND, OREGON 97209-3600
503/796-0717 OFFICE • 503/227-2209 FAX

Recycled Recyclable

Soil Sample Collection

On April 5, 1999, depth discrete soil samples were collected within the area of planned excavation at each of the twelve soil probe locations indicated on Figure 2. All soil probe borings were installed to a depth of 6 feet bgs, corresponding to the depth of the planned excavation activities. Three soil samples were collected from each soil probe boring, with the collected samples corresponding to depths of approximately 1.5 feet bgs, 3.5 feet bgs, and 5.5 feet bgs.

The soil probes were installed by Geo-Tech Explorations, Inc. of Portland, Oregon, and were installed with a 1.5-inch outside diameter (OD) hydraulically-driven steel rod. Soil samples were collected using a 1.5-inch OD stainless steel split-spoon device with a disposable plastic liner that was advanced into the undisturbed soils 2 to 4 feet ahead of the probe tip. The soil probe was used to collect continuous soil cores to the bottom of each boring.

All soil samples collected were immediately placed in 4-ounce sample jars and capped with teflon-lined lids. The sample jars were then labeled and transferred to a chilled container for shipment to the analytical laboratory. Standard sampling protocols, including the use of chain-of-custody documentation, were followed for all sampling procedures.

The properties of each soil sample were noted by an HAI geologist in the field. Boring logs that describe the soils encountered via the soil probe borings as part of the investigation are included in Appendix A. An estimate of the Unified Soil Classification System (USCS) soil type designation is shown on the boring logs. The USCS designation was a field estimate only and was not confirmed by laboratory analyses.

All soil samples were field-screened for the presence of organic vapors by the headspace method using a Photovac MicroTip model MP-1000 equipped with a 10.6 ev lamp and photoionization detector (PID). Immediately following the collection of the sample, approximately 4 ounces of soil were placed in a quart size plastic bag and sealed. The sample was then set aside for a minimum 20-minute stabilization period, whereupon the detector probe was inserted through the seal into the bag. The results of the headspace screening are recorded on the boring logs in parts per million (ppm). The headspace method results should be considered qualitative and should be used for comparison purposes only.

Abandonment Procedures

Following completion of each soil probe boring installation, each boring was backfilled with granular bentonite.

Decontamination Procedures

All soil probe sampling equipment was decontaminated with a detergent solution wash followed by a double rinse with potable water between boring locations to prevent cross-contamination. Additionally, all non-disposable sampling equipment was similarly decontaminated prior to the collection of each sample.

Laboratory Analyses

Each of the three soil samples collected from an individual soil probe boring were composited by the analytical laboratory to produce one overall sample for each boring. As such, twelve composited soil samples, each representing average soil conditions within each of the twelve soil probe borings, were prepared for laboratory analysis.

Each of the twelve composited soil samples was analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) constituents via U.S. Environmental Protection Agency (EPA) Method 8020; for diesel and oil range petroleum hydrocarbons via Northwest (NW) Method TPH-Dx; and for gasoline range petroleum hydrocarbons via NW Method TPH-G. Additionally, four of the composited samples were selected for expanded analyses to include polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270 SIM, and for total cyanide by EPA Method 9010.

Based on the results of the above-identified benzene analyses, the soil sample collected from soil probe boring P-12 was further analyzed for leachable benzene via EPA Toxicity Characteristic Leaching Procedure (TCLP) Method 1311/8020.

A summary of analytical results from the above-identified analyses are provided in Tables 1a and 1b. Additionally, as requested by Waste Management, Inc, historical phenol data collected at the site as part of ongoing RI activities, have been provided in Table 2. Laboratory data sheets and chain-of-custody documentation are provided in Appendix B.

Analytical Results

Petroleum hydrocarbons, predominantly in the diesel and heavy oil range, were identified in soil samples representing all but two of the soil probe locations, with concentrations of up to 46,700 parts per million (ppm) combined total diesel and heavy oil range hydrocarbons being identified (P-8 location). Only low levels of gasoline-range petroleum hydrocarbons were identified in the soil, with the maximum identified concentration being 216 ppm (P-2 location).

Concentrations of total PAHs identified in the four samples selected for expanded analyses (P-2, P-6, P-9, and P-12) ranged from 80 ppm at the P-6 probe location, to 1,300 ppm at the P-2 probe location. Total cyanide concentrations in these same four samples were found to range from 1.6 ppm (P-6) to 57 ppm (P-2).

BTEX constituents were identified at low concentrations at numerous soil probe locations, with the maximum identified concentrations being identified at the P-12 probe location. With regard to benzene, the most significant detection was identified at the P-12 location, where a

TABLES

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TABLE 1a – Summary of Analytical Results for Soil Samples
TPH, BTEX, Total PAHs, and Cyanide
Proposed Above Ground Storage Tank Foundation Excavation Area
Koppers Industries - Northwest Natural Gasco Facility
Portland, Oregon

Project No. 2708

Soil Boring Number	Sample Number[1]	Sample Date	Depth (feet bgs)	Field Observation (as observed within the depth interval of 0 to 6 feet bgs)				Analytical Results mg/kg (ppm)										
								ODEQ Method			EPA Method 8270 SIM		EPA Method 8020					EPA Method 1311 / 8020	EPA Method 9010
								NW TPH-G	NW TPH-Dx									
				Sheen	Oil Tar	Tar	Lamp Black	Gasoline	Diesel	Heavy Oil	Carcinogenic PAHs	Total PAHs	Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	Leachable Benzene (mg/L)	Total Cyanide
P-1	990405-P1	5-Apr-99	0.5 / 3.5 / 5.5 (composite)	X				ND>5.88	ND>17.6	ND>58.8	-	-	ND>0.0294	ND>0.0294	ND>0.0294	ND>0.0882	ND	-	-
P-2	990405-P2	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X	X	X	X	216.	5,570.	13,100.	671	1,307	ND>0.305	0.385	15.1	27.	42.485	-	57.
P-3	990405-P3	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X	X		X	100.	3,970.	3,820.	-	-	0.135	0.341	4.37	9.43	14.276	-	-
P-4	990405-P4	5-Apr-99	2.0 / 3.5 / 5.5 (composite)	X			X	79.	3,680.	3,520.			0.205	0.681	2.36	7.22	10.466	-	-
P-5	990405-P5	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X			X	ND>5.62	ND>16.9	ND>56.2	-	-	ND>0.0281	ND>0.0281	ND>0.0281	ND>0.0843	ND	-	-
P-6	990405-P6	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X		X	X	ND>5.75	150.	447.	42	80	ND>0.0287	ND>0.0287	ND>0.0287	ND>0.0862	ND	-	1.6
P-7	990405-P7	5-Apr-99	2.0 / 3.5 / 5.5 (composite)	X	X		X	25.3	473.	931.	-	-	0.0427	0.0715	0.423	1.15	1.687	-	-
P-8	990405-P8	5-Apr-99	2.0 / 3.5 / 5.5 (composite)	X			X	21.5	14,900.	31,800.	-	-	0.076	0.107	0.176	0.215	0.574	-	-
P-9	990405-P9	5-Apr-99	0.5 / 3.5 / 5.5 (composite)	X			X	ND>5.68	434.	1,060.	82	160	ND>0.0284	ND>0.0284	ND>0.0284	ND>0.0852	ND	-	2.4
P-10	990405-P10	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X			X	ND>5.68	3,300.	4,520.	-	-	ND>0.0284	ND>0.0284	ND>0.0284	ND>0.0852	ND	-	-
P-11	990405-P11	5-Apr-99	2.0 / 4.0 / 5.5 (composite)	X			X	18.4	6,910.	9,700.	-	-	ND>0.0278	0.0291	0.0397	ND>0.0833	0.069	-	-
P-12	990405-P12	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X	X			107.	5,580.	7,780.	580	1,205	9.65	8.53	1.03	3.5	22.71	0.119	7.4

NOTE: 1 = Sample number prefix: 2708-
BTEX = benzene, toluene, ethylbenzene, and xylenes
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams/kilogram
ND = not detected above detection limit indicated
NW = Northwest Method
ODEQ = Oregon Department of Environmental Quality
PAHs = polynuclear aromatic hydrocarbons
ppm = parts per million
TPH = total petroleum hydrocarbons

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Table 1b – Summary of Analytical Results for Soil Samples, PAHs by EPA Method 8270 (SIM)

Proposed Above Ground Storage Tank Foundation Excavation Area
Koppers Industries - Northwest Natural Gasco Facility
Portland, Oregon

Project No. 2708

PAHs by EPA Method 8270 (SIM)				Analytical Results mg/kg (ppm)																	
				Carcinogenic PAHs							Non-carcinogenic PAHs										
Soil Boring	Sample Number	Sample Date	Sample Depth (feet bgs)	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Chrysene	Dibenzo (ah) anthracene	Indeno (1,2,3-cd) pyrene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (ghi) perylene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total Non-Carcinogenic PAHs
P-2	990405-P2	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	102.	146.	46.3	159.	113.	17.1	87.8	7.56	5.24	15.9	134.	134.	5.24	39.	74.4	220.	671.2	635.34
P-6	990405-P6	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	6.67	8.97	3.1	9.31	7.36	1.38	5.63	ND>0.575	ND>0.575	1.15	8.74	8.85	ND>0.575	ND>0.575	4.83	13.8	42.42	37.37
P-9	990405-P9	5-Apr-99	0.5 / 3.5 / 5.5 (composite)	12.5	19.3	5.91	17.	13.6	2.73	11.4	0.625	1.36	2.27	17.	18.2	0.682	1.02	10.7	26.1	82.44	77.957
P-12	990405-P12	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	87.7	136.	39.5	136.	84.	14.8	81.5	2.72	10.9	14.8	114.	173.	7.41	6.42	86.4	210.	579.5	625.65

Note: 1 = Sample number prefix: 2708-
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams/kilogram
ND = Not detected above detection limit indicated
PAHs = polynuclear aromatic hydrocarbons
ppm = parts per million

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TABLE 2 – Summary of Analytical Results for Remedial Investigation Soil Samples
Phenols by EPA Method 8270

Remedial Investigation
Northwest Natural - Gasco Facility
Portland, Oregon

Project No. 2708

Phenols by EPA Method 8270					Analytical Results mg/kg (ppm)															
Soil Boring	Sample Number[1]	Chain of Custody Number	Sample Date	Sample Depth (feet bgs)	4-Chloro-3-methylphenol	2-Chlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Methyl-4,6-dinitrophenol	Cresols, Total	4-Methylphenol	2-Nitrophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Phenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	Total Phenols
B-03	950921-B3-05	2708-S007	21-Sep-95	10.5	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>3.3	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND
B-10	950925-B10-04	2708-S013	25-Sep-95	17.5	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>9.9	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND
B-13	951006-B13-03	2708-S035	6-Oct-95	10.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-17	950929-B17-05	2708-S022	29-Sep-95	16.5	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>9.9	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND
B-18	950919-B18-05	2708-S003	19-Sep-95	12.0	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	**0.36**	ND>0.17	ND>0.17	ND>0.17	0.36
B-19	950919-B19-01	2708-S003	19-Sep-95	0.2	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.33	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND
B-19	950919-B19-03	2708-S004	19-Sep-95	6.5	ND>26	ND>26	ND>26	ND>26	ND>50	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND
B-20	950929-B20-03	2708-S022	29-Sep-95	10.5	ND>26	ND>26	ND>26	ND>26	ND>50	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND
B-22	951003-B22-05	2708-S027	3-Oct-95	13.5	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.33	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND
B-22	951003-B22-09	2708-S028	3-Oct-95	24.0	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>.33	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND
B-23	951003-B23-08	2708-S029	3-Oct-95	26.5	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>2.0	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND
B-26	951003-B26-06	2708-S030	4-Oct-95	20.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-27	950920-B27-10	2708-S005	20-Sep-95	23.0	ND>26	ND>26	ND>26	ND>26	ND>50	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND
B-28	951002-B28-01	2708-S025	2-Oct-95	0.2	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>9.9	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND
B-28	951002-B28-07	2708-S025	2-Oct-95	15.0	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-29	950922-B29-15	2708-S012	22-Sep-95	35.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-30	950922-B30-06	2708-S010	22-Sep-95	11.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-31	950925-B31-06	2708-S014	25-Sep-95	21.0	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-33	951005-B33-03	2708-S034	5-Oct-95	5.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-33	951005-B33-14	2708-S034	5-Oct-95	54.0	ND>17	ND>17	ND>17	ND>17	ND>33	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND
B-35	951005-B35-01	2708-S033	5-Oct-95	0.2	ND>.17	ND>.17	ND>.17	ND>.17	ND>.33	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND
MW-04-57	951030-M4-01	2708-S043	30-Oct-95	0.2	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
MW-04-57	951030-M4-06	2708-S043	30-Oct-95	25.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
MW-10-60	951108-M10-01	2708-S052	8-Nov-95	0.2	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>6.6	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND
MW-12-34	951023-M12-06	2708-S038	23-Oct-95	22.0	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>3.3	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND
ODEQ Soil Cleanup Levels [2]					#	#	#	#	#	#	#	#	#	#	#	5	#	#	2	#
EPA PRGs for Industrial Soil [3]					#	367	2,044	13,625	1,363	#	34,063	3,406	#	#	20,438	7.95	100,000	68,126	173	#

Note: ODEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams/kilogram

ND = Not detected above detection limit indicated
ppm = parts per million
PRGs = EPA Region 9 Preliminary Remediation Goals

[1] = Sample number prefix: 2708-
[2] = Reference Levels are Soil Cleanup Levels in the Soil Cleanup Table (OAR 340-122-045)
[3] = Reference Levels are EPA Region 9 Preliminary Remediation Goals (PRGs) for Industrial Soil
# = Reference level not established

Koppers018873

FIGURES

Koppers018874

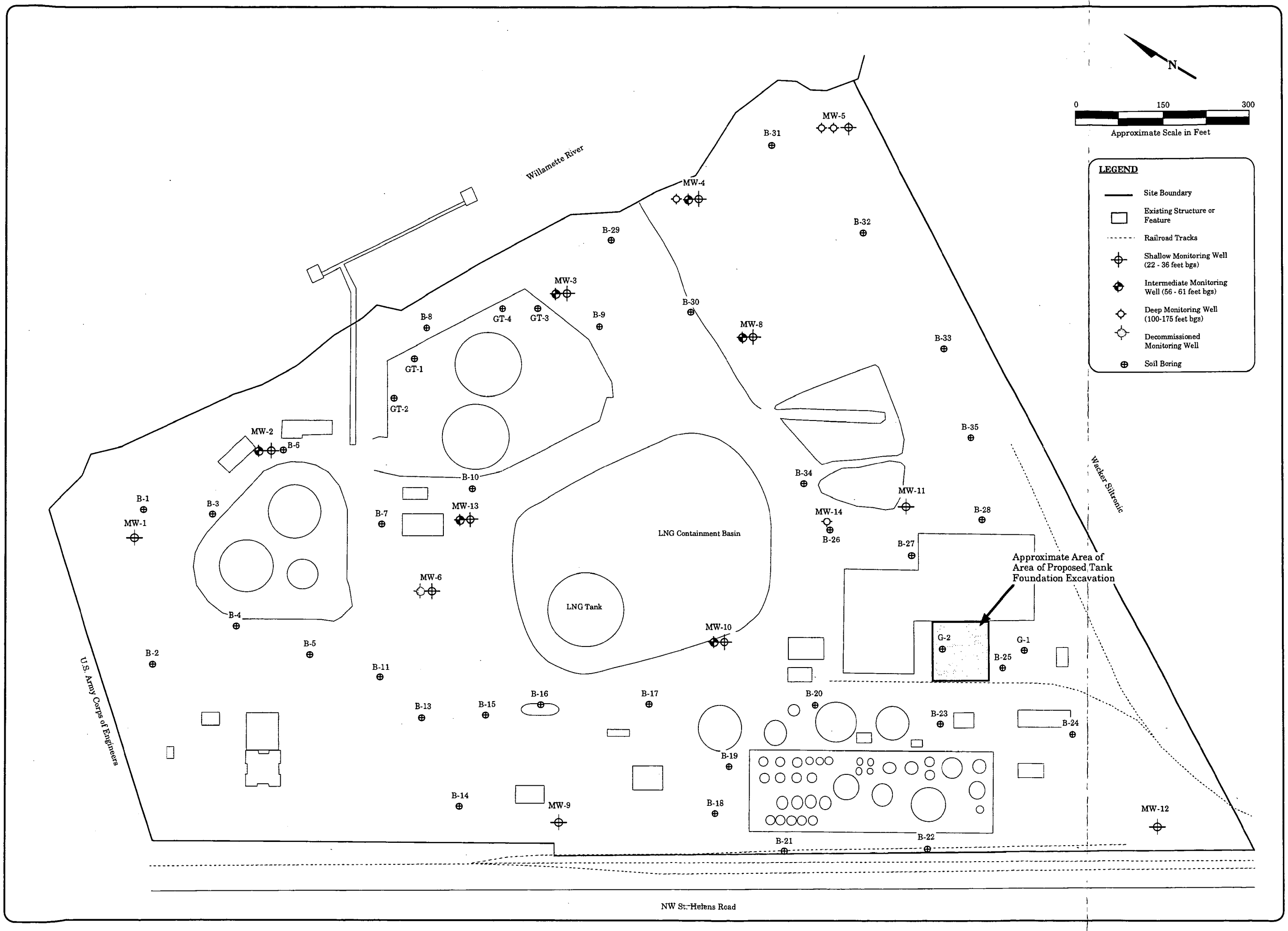


Figure 1

Site Map

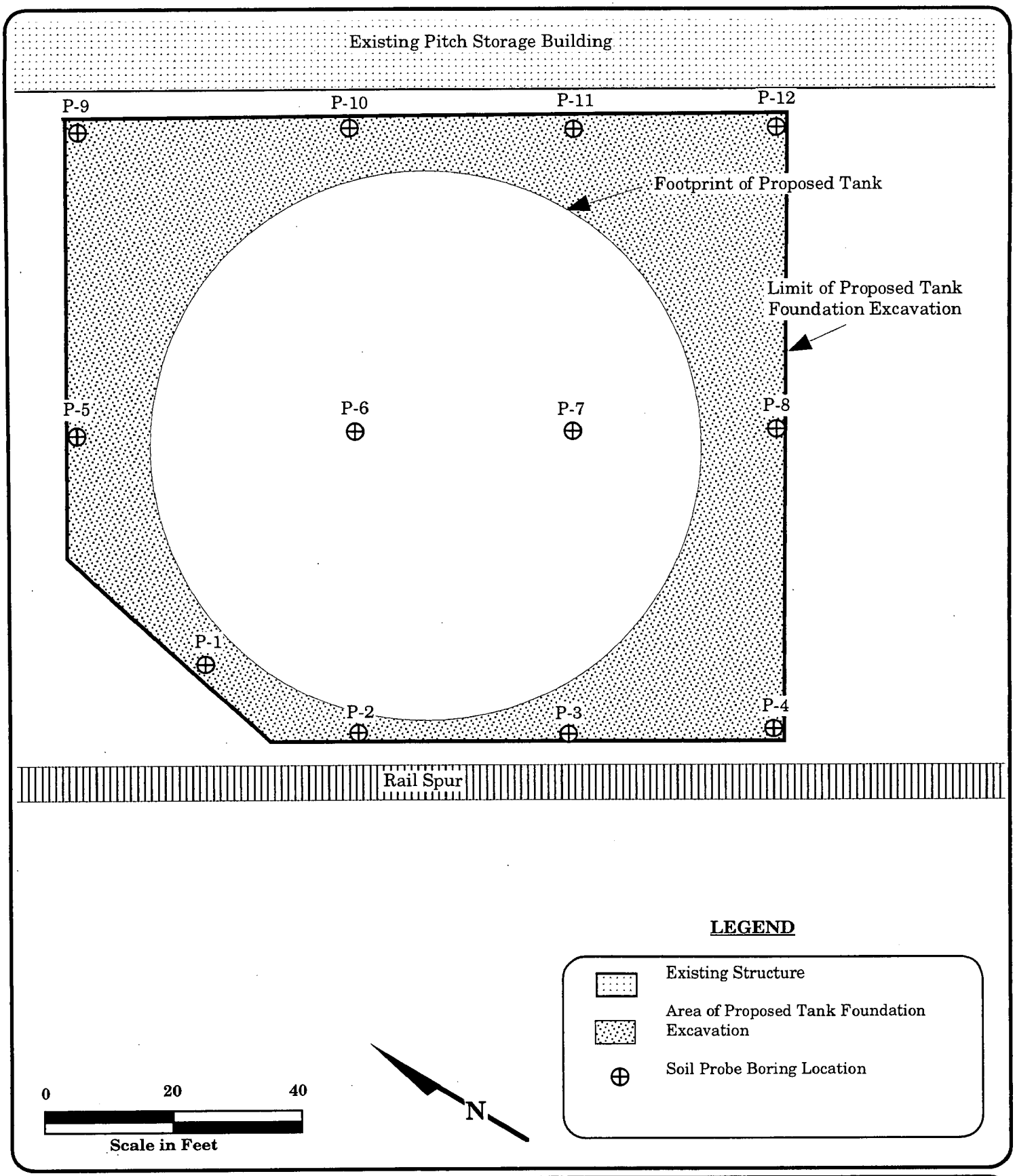
Proposed Tank Foundation Excavation
Koppers Industries
7540 NW St. Helens Road
Portland, Oregon

HAHN & ASSOCIATES, INC.
ENVIRONMENTAL MANAGEMENT
434 NW SIXTH AVENUE, SUITE 203
PORTLAND, OREGON 97209
503/796-0717

April 1999

Project No. 2708

Koppers018875



Project No. 2708	**HAHN AND ASSOCIATES, INCORPORATED** ENVIRONMENTAL MANAGEMENT 434 NW SIXTH AVENUE, SUITE 203 PORTLAND, OREGON 97209 (503) 796-0717	**Sample Location Map Proposed Tank Foundation Excavation** Kopper's Industries 7540 NW St. Helens Road Portland, Oregon	**FIGURE 2**
April 1999			

APPENDICES

Koppers018877

A

APPENDIX A

Soil Boring Logs

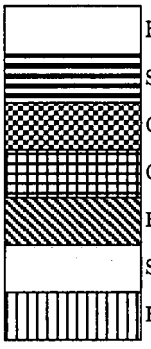
KEY TO BORING LOGS

Soil classification in this report is based upon visual and manual field observations which include moisture, consistency, plasticity and grading estimates and should not be construed to imply field or laboratory testing unless presented herein. Soils are classified in accordance with the Unified Soil Classification System. Stratigraphic boundaries are approximate representations only. No warranty is provided as to the continuity of soil strata between borings.

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COURSE GRAINED SOILS	GRAVELS More Than Half the Course Fraction is Larger Than No. 4 Sieve Size	Clean Gravels With Little or No Fines	GW	Well Graded Gravels, Gravel-Sand Mixtures
			GP	Poorly Graded Gravels, Gravel-Sand Mixtures
		Gravels With Over 12% Fines	GM	Silty Gravels, Poorly Graded Gravel-Sand-Silt Mixtures
			GC	Clayey Gravels, Poorly Graded Gravel-Sand-Clay Mixtures
More Than Half is Larger Than #200 Sieve	SANDS More Than Half the Course Fraction is Smaller Than No. 4 Sieve Size	Clean Sands With Little or No Fines	SW	Well Graded Sands, Gravelly Sands
			SP	Poorly Graded Sands, Gravelly Sands
		Sands With Over 12% Fines	SM	Silty Sands, Poorly Graded Sand-Silt Mixtures
			SC	Clayey Sands, Poorly Graded Sand-Clay Mixtures
FINE GRAINED SOILS	SILTS AND CLAYS Liquid Limit Less Than 50%		ML	Inorganic Silts and Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands, or Clayey Silts with Slight Plasticity
			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays
			OL	Organic Clays and Organic Silty Clays of Low Plasticity
More Than Half is Smaller Than #200 Sieve	SILTS AND CLAYS Liquid Limit Greater Than 50%		MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silts
			CH	Inorganic Clays of High Plasticity, Fat Clays
			OH	Organic Clays of Medium to High Plasticity, Organic Silts
HIGHLY ORGANIC SOILS			Pt	Peat and Other Highly Organic Soils

LEGEND FOR BORING LOGS



ABBREVIATIONS

NA	Not Applicable
ND	Not Detected Above Detection Limit
NS	Not Sampled
TPH	Total Petroleum Hydrocarbons
HCID	Hydrocarbon Identification
ppm	Parts Per Million
SPT	Standard Penetration Test
▽	Measured Static Water Level in Well
▼	Estimated Water Level During Drilling

Updated: 4/7/99 RBE
File: Boring Log Key

HAHN AND ASSOCIATES, INC.

Koppers018880

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-1**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 10:06	DRILL FINISH Time: 10:25
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)
Granular Bentonite	001	10:10	3.0	-			1		ML
							2		SP
							3		
	002	10:11	-	-			4		
							5		
			5.0						
	003	10:20		-			6		
							7		
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

SOIL DESCRIPTION

Asphalt surface

SILT - olive gray, moist, slightly plastic, hydrocarbon odor, slight sheen (0.5-1.0 feet below ground surface)

SAND - brown, moist, medium grained, some gravel, no odor, no sheen, no discoloration (1.0-4.0 feet below ground surface)

SAND - as above, hydrocarbon odor, slight sheen, slight grey discoloration (4.0-6.0 feet below ground surface)

Boring terminated at 6.0 feet bgs

Groundwater not encountered

* Sample number prefix = 2708-990405-

Samples were composited by lab into sample 2708-990405-P1

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-2**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 10:26	DRILL FINISH Time: 10:36
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1			Asphalt surface
	004	10:28	1.0	-			2		GP	Sandy GRAVEL - moist, medium grained, hydrocarbon odor, lampblack and hardened tar (1.0-1.5 feet below ground surface), black oil stained zone (1.5-2.0 feet below ground surface)
							3			
	005	10:30	7.0	-			4		SP	SAND - gray, moist, medium grained, hydrocarbon odor, slight sheen, slight gray discoloration (2.0-4.0 feet below ground surface)
							5			SAND - as above (4.0-6.0 feet below ground surface)
	006	10:36	7.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			
							17			Boring terminated at 6.0 feet bgs
							18			Groundwater not encountered
							19			* Sample number prefix = 2708-990405-
							20			Samples were composited by lab into sample 2708-990405-P2

Koppers018882

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-3**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 10:40	DRILL FINISH Time: 10:52
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)
Granular Bentonite							1		GP
	007	10:46	21.0	-			2		
							3		SP
	008	10:47	6.0	-			4		
							5		
	009	10:50	17.0	-			6		
							7		
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

SOIL DESCRIPTION

Asphalt surface

Sandy GRAVEL - gray to black, moist, medium grained sand, lampblack (0.5 to 2.0 feet below ground surface), hydrocarbon odor, no sheen

SAND - brown, very moist, medium grained, hydrocarbon odor, slight sheen, black oil stained zone (2.0-3.0 feet below ground surface)

SAND - as above, hydrocarbon odor, slight sheen, no oil staining (4.0-6.0 feet below ground surface).

Boring terminated at 6.0 feet bgs

Groundwater not encountered

* Sample number prefix = 2708-990405-

Samples were composited by lab into sample 2708-990405-P3

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-4**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 10:55 Date: 5-Apr-99	DRILL FINISH Time: 11:06 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)
Granular Bentonite							1		GP
							2		
	010	10:59	19.0	-			3		SP
							4	▼	
	011	11:00	9.0	-			5		
							6		
	012	11:03	17.0	-			7		
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

SOIL DESCRIPTION

Asphalt surface

Sandy GRAVEL - moist, medium grained sand, lampblack from 2.0 to 2.5 feet below ground surface, hydrocarbon odor, no sheen

SAND - light brown, moist, medium grained, hydrocarbon odor, slight sheen (3.0-4.0 feet below ground surface)

SAND - as above, wet, hydrocarbon odor, slight sheen (4.0-6.0 feet below ground surface)

Boring terminated at 6.0 feet bgs

* Sample number prefix = 2708-990405-

Samples were composited by lab into sample 2708-990405-P4

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-5**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 11:11	DRILL FINISH Time: 11:25
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1			Asphalt surface
	013	11:17		-			2			SAND - light brown, moist, medium grained, lampblack from 1.0-1.5 feet below ground surface, hydrocarbon odor, slight sheen (2.0-4.0 feet below ground surface)
			8.0				3		SP	
	014	11:18	8.0	-			4			
							5			SAND - as above, no lampblack, hydrocarbon odor, slight sheen (4.0.-6.0 feet below ground surface)
	015	11:22	-	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			
							17			
							18			
							19			
							20			

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

Boring terminated at 6.0 feet bgs

Groundwater not encountered

* Sample number prefix = 2708-990405-

Samples were composited by lab into sample 2708-990405-P5

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-6**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 11:32 Date: 5-Apr-99	DRILL FINISH Time: 11:42 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1		GP	Asphalt surface Sandy GRAVEL - moist, medium grain, hydrocarbon odor, slight sheen, some lampblack (0.5-1.5 feet below ground surface)
	016	11:36		-			2			
			9.0				3		SP	SAND - light brown, moist, medium grained, ball of hardened tar at 3.0 feet below ground surface, hydrocarbon odor, slight sheen, (1.5-4.0 feet below ground surface)
	017	11:37	9.0	-			4			
							5			SAND - as above, hydrocarbon odor, slight sheen, (4.0-6.0 feet below ground surface)
	018	11:41	9.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs Groundwater not encountered * Sample number prefix = 2708-990405- Samples were composited by lab into sample 2708-990405-P6
							17			
							18			
							19			
							20			

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-7**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 11:48 Date: 5-Apr-99	DRILL FINISH Time: 11:58 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	DEPTH (feet)	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite					1	GP	Asphalt surface Sandy GRAVEL - moist, medium grained sand, hydrocarbon odor, slight sheen, some lampblack (0.5-2.0 feet below ground surface)
					2		
	019	11:54	14.0	-	3	SP	SAND - gray, moist, medium grained, hydrocarbon odor, slight sheen, black oil staining at 2.0 feet below ground surface (2.0-4.0 feet bgs)
	020	11:55	12.0	-	4		
					5		SAND - as above, wet at 5.5 feet below ground surface, increasing petroleum odor with depth, slight sheen (4.0-6.0 feet bgs)
	021	11:58	33.0	-	6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		Boring terminated at 6.0 feet bgs
					17		* Sample number prefix = 2708-990405-
					18		Samples were composited by lab into sample 2708-990405-P7
					19		
					20		

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-8**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER: Jason M. Greifer SAMPLING METHOD: Stainless Steel Soil Sampler DRILLING METHOD: Hydraulic Soil Probe EQUIPMENT TYPE Geo Probe DRILLER: Tom Wilson DRILLING CONTRACTOR: Geo-Tech Explorations, Inc.		DRILL START Time: 12:03 Date: 5-Apr-99	DRILL FINISH Time: 12:13 Date: 5-Apr-99

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
										BORING DIAMETER: 1.5-inch OD CASING DIAMETER: N/A SURFACE ELEVATION: Not Surveyed TOP OF CASING ELEVATION: N/A
Granular Bentonite							1		GP	Asphalt surface Sandy GRAVEL - moist, medium grained, hydrocarbon odor, slight sheen, lampblack (0.5-2.5 feet below ground surface)
							2			
	022	12:08	28.0	-			3			
									SP	SAND - gray, medium grained, hydrocarbon odor, moderate sheen, (2.5-4.0 feet below ground surface)
	023	12:09	14.0	-			4			
							5			SAND - as above (4.0-6.0 feet below ground surface)
	024	12:12	47.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs Groundwater not encountered * Sample number prefix = 2708-990405- Samples were composited by lab into sample 2708-990405-P8
							17			
							18			
							19			
							20			

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-9**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 12:18 Date: 5-Apr-99	DRILL FINISH Time: 12:30 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite										Asphalt surface
	025	12:22		-			1		GP	Sandy GRAVEL - brown and black, moist, medium grained sand, lampblack from 0.5-1.0 feet below ground surface, hydrocarbon odor, slight sheen (0.5 to 2.5 feet below ground surface)
			10.0				2			
							3			
	026	12:23	15.0	-			4		SP	SAND - light brown, moist, medium grained, hydrocarbon odor, slight sheen, (2.5-4.0 feet below ground surface)
							5			
	027	12:28	16.0	-			6			SAND - as above, hydrocarbon odor, slight sheen (4.0-6.0 feet below ground surface)
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs
							17			Groundwater not encountered
							18			* Sample number prefix = 2708-990405-
							19			Samples were composited by lab into sample 2708-990405-P9
							20			

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-10**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 12:37	DRILL FINISH Time: 12:47
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1		GP	Asphalt Surface Sandy GRAVEL - moist, medium grained sand, lampblack from 1.5-2.0 feet below ground surface, hydrocarbon odor, slight sheen
	028	12:42	11.0	-			2			
							3		SP	SAND - light brown, moist, medium grained, hydrocarbon odor, slight sheen, (2.0-4.0 feet below ground surface)
	029	12:43	15.0	-			4			
							5			SAND - as above, hydrocarbon odor, slight sheen, (4.0-6.0 feet below ground surface)
	030	12:45	17.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			
							17			
							18			
							19			
							20			

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

Boring terminated at 6.0 feet bgs

Groundwater not encountered

* Sample number prefix = 2708-990405-

Samples were composited by lab into sample 2708-990405-P10

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-11**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 12:50	DRILL FINISH Time: 12:54
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1			Asphalt
							2		GP	Sandy GRAVEL - moist, gray and brown, some lampblack at 2.5 feet below ground surface, hydrocarbon odor, slight sheen (0.5-2.5 feet below ground surface)
	031	12:58	10.0	-			3			
							4		SP	SAND - light brown, moist, medium grained, one-inch layer of lampblack at 3.0 feet below ground surface, hydrocarbon odor, slight sheen (2.5-4.0 feet below ground surface)
	032	13:00	10.0	-			5			
	033	13:04	18.0	-			6			SAND - as above, hydrocarbon odor, slight sheen (4.0-6.0 feet below ground surface)
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs
							17			Groundwater not encountered
							18			* Sample number prefix = 2708-990405-
							19			Samples were composited by lab into sample 2708-990405-P11
							20			

HAHN & ASSOCIATES, INC.
434 NW Sixth Avenue
Portland, Oregon
(503) 796-0717

PROJECT:
Koppers / NW Natural
NW St. Helens Road
Portland, Oregon
PROJECT #: 2708-99

SOIL PROBE NUMBER P-12

		DRILL START	DRILL FINISH
HAI LOGGER:	Jason M. Greifer		
SAMPLING METHOD:	Stainless Steel Soil Sampler		
DRILLING METHOD:	Hydraulic Soil Probe	Time:	Time:
EQUIPMENT TYPE	Geo Probe	13:08	13:25
DRILLER:	Tom Wilson	Date:	Date:
DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.	5-Apr-99	5-Apr-99

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1			Concrete Surface
									GP	Sandy GRAVEL - brown, moist, hydrocarbon odor, slight sheen (0.5-1.5 feet below ground surface)
	034	13:17	-	-			2			
							3			SAND - light brown, medium grained, hydrocarbon odor, slight sheen, black oil stained zone 2.0-4.0 feet below ground surface (1.5-4.0 feet below ground surface)
	035	13:18	20.0	-			4		SP	
							5			
										SAND - grey, moist, less black staining, increase in hydrocarbon odor, slight sheen (4.0-6.0 feet below ground surface)
	036	13:23	29.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs
							17			Groundwater not encountered
							18			* Sample number prefix = 2708-990405-
							19			Samples were composited by lab into sample 2708-990405-P12
							20			

B

APPENDIX B

Chain of Custody Documentation and Laboratory Report
April 5, 1999 Soil Probe Sampling Event

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory: ENVIRONMENTAL SERVICES LABORATORY, INC. PORTLAND, OREGON

Lab Project No.:

CHAIN OF CUSTODY

Chain of Custody No.: PAGE 1 OF 3

Project Manager: ROB EDE
Project No.: 2708-99
Project Name: KAPPERS Soil characterization
Collected by: JAY GREIFER

Liquid with Sediment Sample
Test Filtrate ____ Test Sediment ____ Test Both ____
Multi-Phase Sample
Test One (which) ____ Test Separately ____ Shake ____

Samples Received at 4C (Y or N):
Appropriate Containers Used (Y or N):
Provide Verbal Results (Y or N):
Provide Preliminary Fax Results: Y

Comments
* SAMPLE PREFIX = 2708-990405-

PLEASE COMPOSITE AS INDICATED.

RUSH (RESULTS BY AM, APRIL 7th).

Lab ID	*Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	NWTPH-G (EPA 8020 Gasoline/BTEX)	NWTPH-DX (diesel, oil-range)	EPA 8270-SIM (PAH)	EPA 9010 (TOTAL CYANIDE)	RUSH	Remarks
	-001	4/5/99	1010		X			1						COMPOSITE AS FOLLOWS: NEW SAMPLE 2708-990405- P-1
	-002		1011		X			1						
	-003		1020		X			1						
	-P1			COMPOSITE OF -001, -002, -003	X			0	X	X			X	
	-004		1028		X			1						P-2
	-005		1030		X			1						
	-006		1035		X			1						
	-P2			COMPOSITE OF -004, -005, -006	X			0	X	X	X	X	X	
	-007		1046		X			1						P-3
	-008		1047		X			1						
	-009		1050		X			1						

Relinquished by	Company	Date	Time	Received by	Company
[signature]	HAI	4/5/99	1457	Matt Heam	ESL
Relinquished by	Company	Date	Time	Received by	Company
Relinquished by	Company	Date	Time	Received by	Company

Koppers018895

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory: ENVIRONMENTAL SERVICES LABORATORY, INC.
Lab Project No.:

CHAIN OF CUSTODY

Chain of Custody No.: PAGE 2 OF 3

Project Manager	ROB EDE
Project No.	2708-99
Project Name	KOPPERS SOIL CHARACTERIZATION
Collected by	JAY GREIFER

Liquid with Sediment Sample
____ Test Filtrate ____ Test Sediment ____ Test Both
Multi-Phase Sample
____ Test One (which) ____ Test Separately ____ Shake

Samples Received at 4C (Y or N)	
Appropriate Containers Used (Y or N)	
Provide Verbal Results (Y or N)	
Provide Preliminary Fax Results	Y

Comments
* SAMPLE PREFIX= 2708-990405-
PLEASE COMPOSITE AS INDICATED.
RUSH (RESULTS BY AM, APRIL 7TH)

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	Analyses to be Performed: NW TPH-G/EPA 8020 (gasoline/BTEX)	NW TPH-DX (diesel, oil-range)	EPA 8270-SIM (PAHs)	EPA 9010 (TOTAL CYANIDE)	RUSH	Remarks
	-P3	4/5/99		composite of -007, -008, -009	X			0	X	X				
	-010		1059		X			1						P-4
	-011		1100		X			1						
	-012		1103		X			1						
	-P4			composite of -010, -011, -012				0	X	X				
	-013		1117		X			1						P-5
	-014		1118		X			1						
	-015		1122		X			1						
	-P5			composite of -013, -014, -015				0	X	X				
	-016		1136		X			1						P-6
	-017		1137		X			1						

Relinquished by	Company	Date	Time	Received by	Company
[signature]	HAI	4/5/99	1452	[signature]	ESL
Relinquished by	Company	Date	Time	Received by	Company
Relinquished by	Company	Date	Time	Received by	Company

Koppers018896

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory: ENVIRONMENTAL STRUCTURES LABORATORY, INC.
Lab Project No.:

CHAIN OF CUSTODY

Chain of Custody No.: PAGE 3 of 5

Project Manager: Rob EDE
Project No.: 2708-99
Project Name: KOPPERS SRI CHARACTERIZATION
Collected by: JAY GREIFER

Liquid with Sediment Sample
Test Filtrate ____ Test Sediment ____ Test Both ____
Multi-Phase Sample
Test One (which) ____ Test Separately ____ Shake ____

Samples Received at 4C (Y or N):
Appropriate Containers Used (Y or N):
Provide Verbal Results (Y or N):
Provide Preliminary Fax Results: Y

Comments
SAMPLE PREFIX = 2708-990405-
PLEASE COMPOSITE AS INDICATED.
RUSH (RESULTS BY AM, APRIL 7th)

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	Analyses to be Performed: NW TPH-G/EPA 8020 (gasoline/BTEX)	NW TPH-DX (diesel, oil-range)	EPA 8270 SIM (PAHs)	EPA 9010 (total Cyanide)	RUSH	Remarks
	-018	4/5/99	1141		X			1						P-6
	-P6			COMPOSITE OF -016, -017, -018					X	X	X	X	X	
	-019		1154		X			1						P-7
	-020		1155		X			1						
	-021		1158		X			1						
	P7			COMPOSITE OF -019, -020, -021					X	X			X	
	-022		1208		X			1						P-8
	-023		1209		X			1						
	-024		1212		X			1						
	P-8			COMPOSITE OF -022, -023, -024					X	X			X	
	-025		1222		X			1						P-9

Relinquished by	Company	Date	Time	Received by	Company
J M Hahn	HAI	4/5/99	1452	Matt Heavenrich	ESL
Relinquished by	Company	Date	Time	Received by	Company
Relinquished by	Company	Date	Time	Received by	Company

Koppers018897

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Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
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Laboratory: ENVIRONMENTAL SERVICES LABORATORY, INC.
Lab Project No.:

CHAIN OF CUSTODY

Chain of Custody No. PAGE 4 of 5

Project Manager: ROB EDE
Project No.: 2708-99
Project Name: KOPPERS
Collected by: JMG

Liquid with Sediment Sample
___ Test Filtrate ___ Test Sediment ___ Test Both
Multi-Phase Sample
___ Test One (which) ___ Test Separately ___ Shake

Samples Received at 4C (Y or N):
Appropriate Containers Used (Y or N):
Provide Verbal Results (Y or N):
Provide Preliminary Fax Results: ✓

Comments
* SAMPLE PREFIX= 2708-990405-

PLEASE COMPOSITE AS INDICATED.

RUSH (RESULTS BY AM, APRIL 7th)

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Soil	Matrix: Water	Matrix: Other	Number of Containers	Analyses to be Performed: NW TPH 6/EPA 8020 (gasoline/BTEX)	NW TPH-DX (diesel, oil-range)	EPA 8270 SIM (PAHs)	EPA 9010 (TOTAL CYANIDE)						RUSH	Remarks: COMPOSITE AS FOLLOWS.
	-026	4/5/99	1223		X			1											P-9
	-027		1228		X			1											
	-P9			COMPOSITE OF -025, -026, -027				0	X	X	X	X						X	
	-028		1242		X			1											P-10
	-029		1243		X			1											
	-030		1245		X			1											
	-P10			COMPOSITE OF -028, -029, -030				0	X	X								X	
	-031		1258		X			1											P-11
	-032		1300		X			1											
	-033		1304		X			1											
	-P11								X	X								X	

Relinquished by	Company	Date	Time	Received by	Company
J M Hafer	HAI	4/5/99	1452	Matt Heavene	ESL

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory: ESL
Lab Project No.:

CHAIN OF CUSTODY

Chain of Custody No. PAGE 5 of 5

Project Manager: ROB EDE
Project No.: 2708-99
Project Name: KOPPERS
Collected by: JMG

Liquid with Sediment Sample
___ Test Filtrate ___ Test Sediment ___ Test Both
Multi-Phase Sample
___ Test One (which) ___ Test Separately ___ Shake

Samples Received at 4C (Y or N):
Appropriate Containers Used (Y or N):
Provide Verbal Results (Y or N):
Provide Preliminary Fax Results:

Comments
* SAMPLE PREFIX = 2708-990405-
PLEASE COMPOSITE AS INDICATED.

RUSH (RESULTS BY AM, APRIL 7th)

Lab ID	*Sample #	Date	Time	Sample Description	Matrix: Soil	Matrix: Water	Matrix: Other	Number of Containers	Analyses to be Performed: NW TPH-G/EPA 8020 (gasoline/BTEX)	NW TPH-DX (diesel, oil-range)	EPA 8270-SIM (PAHs)	EPA 9010 (TOTAL CYANIDE)					RUSH	Composite as follows / Remarks
	-034	4/5/99	1317		X			1										P12
	-035	↓	1318		X			1										
	-036	↓	1323		X			1										
	-P12	↓							X	X	X	X					X	

Relinquished by	Company	Date	Time	Received by	Company
J M Hooper	[illegible]	4/5/99	1452	Matt Heavener	ESL

Environmental Services Laboratory, Inc. E S L

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 670-8520

April 09, 1999

Mr. Rob Ede
Hahn & Associates
434 N.W. 6th Avenue
Suite 203
Portland, OR 97209

TEL: (503)796-0717
FAX (503) 227-2209

RE: 2708-99/Kappers soil characterization Order No.: 9904024

Dear Mr. Rob Ede,

Environmental Services Laboratory received 12 samples on 4/5/99 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
- BTEX\GAS, Aqueous (btEX/Gas)
- BTEX\GAS, Soil (btEX/Gas)
- Cyanide (cyanide)
- NWTPH-Dx Soil (NW TPH-Dx)
- PAH BY SIM, Soil (SW8270B)
- PERCENT MOISTURE (D2216)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval from the Laboratory.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Kimberly Hill
Project Manager

Technical Review

ANALYTICAL SERVICES FOR THE ENVIRONMENT

Environmental Services Laboratory **Date:** *09-Apr-99*

CLIENT: Hahn & Associates
Project: 2708-99/Kappers soil characterization
Lab Order: 9904024

CASE NARRATIVE

Analytical Comments for METHOD 04 BG S, SAMPLE 9904024-08A: Analytical Comments for METHOD 03 TPH-DX S, SAMPLE LCSD-311: RPD is greater than 20%. Reproducability confirmed by duplicates.

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P1
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-01A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	ND	17.6		mg/Kg-dry	1	4/6/99
TPH (Heavy Oil)	ND	58.8		mg/Kg-dry	1	4/6/99
Surr: O-Terphenyl	90.0	50-150		%REC	1	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0294		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0294		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0294		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0882		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.88		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	92.2	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	15	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P2
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-02A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE		**EPA 335 SERIES**				Analyst: **sld**
Cyanide	57	12		mg/Kg-dry	500	4/6/99
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: **tmh**
TPH (Diesel)	5570	1830	AE	mg/Kg-dry	10	4/6/99
TPH (Heavy Oil)	13100	6100	AF	mg/Kg-dry	10	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	10	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: **kfl**
Benzene	ND	0.305		mg/Kg-dry	10	4/6/99
Ethylbenzene	15.1	0.305		mg/Kg-dry	10	4/6/99
Toluene	0.385	0.305		mg/Kg-dry	10	4/6/99
Xylenes, Total	27	0.915		mg/Kg-dry	10	4/6/99
Gasoline	216	61		mg/Kg-dry	10	4/6/99
Surr: Trifluorotoluene	110.4	50-150		%REC	10	4/6/99
PAH BY SIM, SOIL		**SW 8270B**				Analyst: **ams**
Acenaphthene	7560	610		µg/Kg-dry	10	4/6/99
Acenaphthylene	5240	610		µg/Kg-dry	10	4/6/99
Anthracene	15900	610		µg/Kg-dry	10	4/6/99
Benz(a)anthracene	102000	6100		µg/Kg-dry	10	4/6/99
Benzo(a)pyrene	159000	6100		µg/Kg-dry	10	4/6/99
Benzo(b)fluoranthene	146000	6100		µg/Kg-dry	10	4/6/99
Benzo(g,h,i)perylene	134000	6100		µg/Kg-dry	10	4/6/99
Benzo(k)fluoranthene	46300	610		µg/Kg-dry	10	4/6/99
Chrysene	113000	6100		µg/Kg-dry	10	4/6/99
Dibenz(a,h)anthracene	17100	610		µg/Kg-dry	10	4/6/99
Fluoranthene	134000	6100		µg/Kg-dry	10	4/6/99
Fluorene	5240	610		µg/Kg-dry	10	4/6/99
Indeno(1,2,3-cd)pyrene	87800	6100		µg/Kg-dry	10	4/6/99
Naphthalene	39000	610		µg/Kg-dry	10	4/6/99
Phenanthrene	74400	6100		µg/Kg-dry	10	4/6/99
Pyrene	220000	6100		µg/Kg-dry	10	4/6/99
Surr: 2-Fluorobiphenyl	00.0	30-115	X	%REC	10	4/6/99
Surr: 4-Terphenyl-d14	00.0	18-137	X	%REC	10	4/6/99
Surr: Nitrobenzene-d5	00.0	23-120	X	%REC	10	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: **tmh**
% Moisture	18	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P3
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-03A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	3970	341	AE	mg/Kg-dry	20	4/6/99
TPH (Heavy Oil)	3820	1140	AF	mg/Kg-dry	20	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	20	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	0.135	0.0284		mg/Kg-dry	1	4/6/99
Ethylbenzene	4.37	0.0284		mg/Kg-dry	1	4/6/99
Toluene	0.341	0.0284		mg/Kg-dry	1	4/6/99
Xylenes, Total	9.43	0.0852		mg/Kg-dry	1	4/6/99
Gasoline	100	5.68		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	87.6	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	12	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P4
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-04A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	3680	341	AE	mg/Kg-dry	20	4/6/99
TPH (Heavy Oil)	3520	1140	AF	mg/Kg-dry	20	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	20	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	0.205	0.0284		mg/Kg-dry	1	4/6/99
Ethylbenzene	2.36	0.0284		mg/Kg-dry	1	4/6/99
Toluene	0.681	0.0284		mg/Kg-dry	1	4/6/99
Xylenes, Total	7.22	0.0852		mg/Kg-dry	1	4/6/99
Gasoline	79	5.68	AI	mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	88.5	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	12	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P5
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-05A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	ND	16.9		mg/Kg-dry	1	4/6/99
TPH (Heavy Oil)	ND	56.2		mg/Kg-dry	1	4/6/99
Surr: O-Terphenyl	103.0	50-150		%REC	1	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0281		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0281		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0281		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0843		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.62		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	54.5	70-130	W	%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	11	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P6
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-06A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE		**EPA 335 SERIES**				Analyst: sld
Cyanide	1.6	0.57		mg/Kg-dry	25	4/6/99
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	150	17.2	AE	mg/Kg-dry	1	4/6/99
TPH (Heavy Oil)	447	57.5	AF	mg/Kg-dry	1	4/6/99
Surr: O-Terphenyl	97.0	50-150		%REC	1	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kft
Benzene	ND	0.0287		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0287		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0287		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0862		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.75		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	86.4	70-130		%REC	1	4/6/99
PAH BY SIM, SOIL		**SW 8270B**				Analyst: ams
Acenaphthene	ND	575		µg/Kg-dry	10	4/6/99
Acenaphthylene	ND	575		µg/Kg-dry	10	4/6/99
Anthracene	1150	575		µg/Kg-dry	10	4/6/99
Benz(a)anthracene	6670	575		µg/Kg-dry	10	4/6/99
Benzo(a)pyrene	9310	575		µg/Kg-dry	10	4/6/99
Benzo(b)fluoranthene	8970	575		µg/Kg-dry	10	4/6/99
Benzo(g,h,i)perylene	8740	575		µg/Kg-dry	10	4/6/99
Benzo(k)fluoranthene	3100	575		µg/Kg-dry	10	4/6/99
Chrysene	7360	575		µg/Kg-dry	10	4/6/99
Dibenz(a,h)anthracene	1380	575		µg/Kg-dry	10	4/6/99
Fluoranthene	8850	575		µg/Kg-dry	10	4/6/99
Fluorene	ND	575		µg/Kg-dry	10	4/6/99
Indeno(1,2,3-cd)pyrene	5630	575		µg/Kg-dry	10	4/6/99
Naphthalene	ND	575		µg/Kg-dry	10	4/6/99
Phenanthrene	4830	575		µg/Kg-dry	10	4/6/99
Pyrene	13600	575		µg/Kg-dry	10	4/6/99
Surr: 2-Fluorobiphenyl	100.0	30-115		%REC	10	4/6/99
Surr: 4-Terphenyl-d14	110.0	18-137		%REC	10	4/6/99
Surr: Nitrobenzene-d5	00.0	23-120	X	%REC	10	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	13	0.		wt%	1	4/6/99

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P7
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-07A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	473	169	AE	mg/Kg-dry	10	4/6/99
TPH (Heavy Oil)	931	562	AF	mg/Kg-dry	10	4/6/99
Surr: O-Terphenyl	80.0	50-150		%REC	10	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	0.0427	0.0281		mg/Kg-dry	1	4/6/99
Ethylbenzene	0.423	0.0281		mg/Kg-dry	1	4/6/99
Toluene	0.0715	0.0281		mg/Kg-dry	1	4/6/99
Xylenes, Total	1.15	0.0843		mg/Kg-dry	1	4/6/99
Gasoline	25.3	5.62		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	92.4	50-150		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	11	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P8
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-08A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	14900	3450	AE	mg/Kg-dry	20	4/6/99
TPH (Heavy Oil)	31800	11500	AF	mg/Kg-dry	20	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	20	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	0.076	0.0287		mg/Kg-dry	1	4/6/99
Ethylbenzene	0.176	0.0287		mg/Kg-dry	1	4/6/99
Toluene	0.107	0.0287		mg/Kg-dry	1	4/6/99
Xylenes, Total	0.215	0.0862		mg/Kg-dry	1	4/6/99
Gasoline	21.5	5.75	AI	mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	98.0	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	13	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P9
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-09A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE		**EPA 335 SERIES**				Analyst: sld
Cyanide	2.4	0.57		mg/Kg-dry	25	4/6/99
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	434	170	AE	mg/Kg-dry	10	4/6/99
TPH (Heavy Oil)	1060	568	AF	mg/Kg-dry	10	4/6/99
Surr: O-Terphenyl	70.0	50-150		%REC	10	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0284		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0284		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0284		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0852		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.68		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	96.4	70-130		%REC	1	4/6/99
PAH BY SIM, SOIL		**SW 8270B**				Analyst: ams
Acenaphthene	625	568		µg/Kg-dry	10	4/6/99
Acenaphthylene	1360	568		µg/Kg-dry	10	4/6/99
Anthracene	2270	568		µg/Kg-dry	10	4/6/99
Benz(a)anthracene	12500	568		µg/Kg-dry	10	4/6/99
Benzo(a)pyrene	17000	568		µg/Kg-dry	10	4/6/99
Benzo(b)fluoranthene	19300	568		µg/Kg-dry	10	4/6/99
Benzo(g,h,i)perylene	17000	568		µg/Kg-dry	10	4/6/99
Benzo(k)fluoranthene	5910	568		µg/Kg-dry	10	4/6/99
Chrysene	13600	568		µg/Kg-dry	10	4/6/99
Dibenz(a,h)anthracene	2730	568		µg/Kg-dry	10	4/6/99
Fluoranthene	18200	568		µg/Kg-dry	10	4/6/99
Fluorene	682	568		µg/Kg-dry	10	4/6/99
Indeno(1,2,3-cd)pyrene	11400	568		µg/Kg-dry	10	4/6/99
Naphthalene	1020	568		µg/Kg-dry	10	4/6/99
Phenanthrene	10700	568		µg/Kg-dry	10	4/6/99
Pyrene	26100	568		µg/Kg-dry	10	4/6/99
Surr: 2-Fluorobiphenyl	100.0	30-115		%REC	10	4/6/99
Surr: 4-Terphenyl-d14	100.0	18-137		%REC	10	4/6/99
Surr: Nitrobenzene-d5	00.0	23-120	X	%REC	10	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	12	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P10
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-10A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	3300	341	AE	mg/Kg-dry	20	4/6/99
TPH (Heavy Oil)	4520	1140	AF	mg/Kg-dry	20	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	20	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0284		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0284		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0284		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0852		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.68		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	94.8	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	12	0.		wt%	1	4/6/99

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P11
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-11A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: **tmh**
JPH (Diesel)	6910	1670	AE	mg/Kg-dry	10	4/6/99
TPH (Heavy Oil)	9700	5560	AF	mg/Kg-dry	10	4/6/99
Surr: O-Terphenyl	00.0	50-150	S,X	%REC	10	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: **kfl**
Benzene	ND	0.0278		mg/Kg-dry	1	4/6/99
Ethylbenzene	0.0397	0.0278		mg/Kg-dry	1	4/6/99
Toluene	0.0291	0.0278		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0833		mg/Kg-dry	1	4/6/99
Gasoline	18.4	5.56	AI	mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	95.3	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: **tmh**
% Moisture	10	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P12
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-12A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE		**EPA 335 SERIES**				Analyst: sld
Cyanide	7.4	0.62		mg/Kg-dry	25	4/8/99
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	5560	1850	AE	mg/Kg-dry	10	4/8/99
TPH (Heavy Oil)	7780	6170	AF	mg/Kg-dry	10	4/8/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	10	4/8/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	9.65	0.154		mg/Kg-dry	5	4/6/99
Ethylbenzene	1.03	0.154		mg/Kg-dry	5	4/6/99
Toluene	8.53	0.154		mg/Kg-dry	5	4/6/99
Xylenes, Total	3.5	0.463		mg/Kg-dry	5	4/6/99
Gasoline	107	30.9	Al	mg/Kg-dry	5	4/6/99
Surr: Trifluorotoluene	82.3	70-130		%REC	5	4/6/99
PAH BY SIM, SOIL		**SW 8270B**				Analyst: ams
Acenaphthene	2720	617		µg/Kg-dry	10	4/6/99
Acenaphthylene	10900	617		µg/Kg-dry	10	4/6/99
Anthracene	14800	617		µg/Kg-dry	10	4/6/99
Benz(a)anthracene	87700	6170		µg/Kg-dry	10	4/6/99
Benzo(a)pyrene	136000	6170		µg/Kg-dry	10	4/6/99
Benzo(b)fluoranthene	136000	6170		µg/Kg-dry	10	4/6/99
Benzo(g,h,i)perylene	114000	6170		µg/Kg-dry	10	4/6/99
Benzo(k)fluoranthene	39500	617		µg/Kg-dry	10	4/6/99
Chrysene	84000	6170		µg/Kg-dry	10	4/6/99
Dibenz(a,h)anthracene	14800	617		µg/Kg-dry	10	4/6/99
Fluoranthene	173000	6170		µg/Kg-dry	10	4/6/99
Fluorene	7410	617		µg/Kg-dry	10	4/6/99
Indeno(1,2,3-cd)pyrene	81500	6170		µg/Kg-dry	10	4/6/99
Naphthalene	6420	617		µg/Kg-dry	10	4/6/99
Phenanthrene	86400	6170		µg/Kg-dry	10	4/6/99
Pyrene	210000	6170		µg/Kg-dry	10	4/6/99
Surr: 2-Fluorobiphenyl	100.0	30-115		%REC	10	4/6/99
Surr: 4-Terphenyl-d14	100.0	18-137		%REC	10	4/6/99
Surr: Nitrobenzene-d5	00.0	23-120	X	%REC	10	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	19	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P12
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-12B	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BTEX\GAS, AQUEOUS		**EPA 8020M**				Analyst: kfl
Benzene	119	5		µg/L	10	4/8/99
Surr: Trifluorotoluene	107.3	70-130		%REC	10	4/8/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

APPENDIX C

Solid/Hazardous Waste Characterization Worksheet

SOLID/HAZARDOUS WASTE CHARACTERIZATION WORKSHEET

Facility: Koppers Industries
7540 NW St. Helens Road
Portland, Oregon

HAI Project #: 2708-99
EPA ID #: _____
Completed by: Robert B. Ede

The waste is classified as **HAZARDOUS** / **NON-HAZARDOUS** (circle one) based on the following:

1) Describe the waste generation process: Soils to be excavated to provide for foundation of 2,000,000 million gallon coal tar tank to undergo construction during 1999. Contamination sourced by historical uses documented to have occurred at this portion of the property.

2) Is this waste a **solid waste**? (40 CFR 261.2 and exclusions 40 CFR 261.4) YES

3) Is this waste a **listed hazardous waste**? NO

F-Listed (40 CFR 261.31): Wastes from non-specific sources NO

K-Listed (40 CFR 261.32): Wastes from specific sources NO

P-Listed (40 CFR 261.33): Discarded commercial chemical product NO

U-Listed (40 CFR 261.33): Discarded commercial chemical product NO

4) Has the waste been excluded under 40 CFR 261.4? NO

5) Is the waste a **characteristic hazardous waste**? NO

Ignitable (40 CFR 261.21) NO (Generator Knowledge – analyses on similar soils)

Corrosive (40 CFR 261.22) NO (Generator Knowledge- analyses on similar soils)

Reactive (40 CFR 261.23) NO (Generator Knowledge-analyses on similar soils)

Toxic (40 CFR 261.24) NO (Analytical Data; Soil Borings P-1 through P-12)

6) Is the waste a **state-only hazardous waste**?

Residue containing 3% or greater of any P-listed waste NO

Residue containing 10% or greater of any U-Listed waste NO

7) Is the hazardous waste excluded as a recyclable material (e.g. used oil that is re-refined, scrap metals, used batteries returned to proper facilities) (40 CFR 261.6(a)). NO

EPA or State Waste Codes: Non-Hazardous Solid Waste (Petroleum-Contaminated)

(DOT) Waste Description: Material Not Regulated by DOT

Signature: RBE

Date: 4/8/99

40 CFR 261.4 HAZARDOUS WASTE EXEMPTIONS

261.4(a) FOLLOWING MATERIALS ARE NOT A SOLID WASTE

1) Domestic Sewage and waste that passes through a sewer system to a publicly-owned treatment works.
2) Industrial Wastewater point source discharges subject to Clean Water Act (NPDES)
3) Irrigation Return Flows.
4) Special Nuclear Material, source or by-product as defined by the Atomic Energy Act of 1954.
5) In-Situ Mining Materials, not removed from the ground during extraction process.
6) Pulping Liquors, reclaimed in recovery furnace and then reused, unless speculatively accumulated (261.1(c)).
7) Spent Sulfuric Acid used to produce virgin sulfuric acid, unless speculatively accumulated.
8) Secondary materials that are reclaimed for reuse in the production process(es), provided:
   i) only tank storage with closed system piping;
   ii) reclamation does no include combustion (such as boilers, industrial furnace or incinerator);
   iii) materials must be reclaimed within 12 months; and
   iv) reclaimed material is not used to produce a fuel or into products that constitutes disposal.
9) Spent Wood Preserving Solutions or Wastewaters that are reclaimed and reused for their original purpose.
10) Specified EPA K-Wastes and Coke By-Products that are only hazardous for toxicity characteristics, if the materials are recycled to coke ovens, tar recovery process, or mixed with coal tar prior to the tar's sale or refining, provided there is no land disposal of the material between recycling and re-use.

261.4(b) SOLID WASTES THAT ARE NOT HAZARDOUS WASTES

1) Household Wastes (residences, hotels/motels, bunkhouse, ranger stations, crew quarters, camp grounds, picnic grounds and day-use recreation areas).
2) Growing/Harvesting Crops and Raising Animal (incl. manure) Materials, used as soil fertilizers.
3) Mining Overburden returned to mine site.
4) Fly and bottom Ash, Slag, and Flue-Gas Emission Control Wastes, generated primarily by coal or fossil fuel combustion, provided that hazardous wastes are not received for combustion.
5) Drilling Fluids, Waters and Other Wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.
6) TC Chromium Wastes, if the waste and chromium used in the process is exclusively (or nearly) trivalent, and it is used in a non-oxidizing environment (specific examples - mostly related to tanning process are in regs.).
7) Ore and Mineral Wastes from extraction, benefication and processing, except for facilities that receive hazardous waste (see regs. for details).
8) Cement Kiln Dust Waste, except for facilities that receive hazardous waste.
9) Discarded Arsenical-Treated Wood or Wood Products (TC D004-D017 only), if the materials are utilized for an intended end use.
10) Petroleum-Contaminated Media and Debris (TC D018-D043 only), that are regulated by 40 CFR 280.
11) Injected Ground Water (TC D018-D043 only) at petroleum extraction, reclimation, storage facility site remediations. (see regs. for details)
12) Used Chlorofloro Carbons (CFC) from totally enclosed heat transfer (refrigeration) equipment (mobile or fixed), if reclaimed for further use.
15) Used Oil Filters, (non-terne plated) if gravity hot-drained. (see regs. for details)

261.4(c) IN-PROCESS HAZARDOUS WASTES; e.g. generated in a raw or product process, until it leaves said process or the process has been shut down for 90-days (at which time the 90-day containerized storage clock starts) (see regs. for details)

261.4(d) ENVIRONMENTAL SAMPLES (see regs. for details)

261.4(e) TREATABILITY STUDY SAMPLES (see regs. for details)

261.4(f) SAMPLES UNDERGOING TREATABILITY STUDIES AT LABORATORIES AND TESTING FACILITIES (see regs. for details)

TC = a waste that is hazardous for toxicity characteristic only

DISPOSAL PROFILING AND SOLID/HAZARDOUS WASTE DETERMINATION: PLANNED TANK FOUNDATION EXCAVATION

Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon

April 9, 1999

HAHN AND ASSOCIATES, INC.
Environmental Management

434 NW 6th Avenue, Suite 203
Portland, Oregon 97209-3600
503/796-0717 • 503/227-2209 FAX

Recycled Recyclable

DISPOSAL PROFILING AND SOLID/HAZARDOUS WASTE DETERMINATION: PLANNED TANK FOUNDATION EXCAVATION

Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon

April 9, 1999

Prepared for:
Northwest Natural
Portland, Oregon

Prepared by:

Hahn and Associates, Inc.
Portland, Oregon

HAI Project No. 2708-99

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL MANAGEMENT

April 9, 1999

Ms. Sandra Hart
Northwest Natural
220 NW Second Avenue
Portland, Oregon 97209

HAI Project No. 2708-99

SUBJECT: Hazardous Waste Determination and Disposal Profiling, Soils to be Excavated for Construction of New Tank Foundation, Koppers Industries, Northwest Natural – Gasco Site, 7540 and 7900 NW St. Helens Road, Portland, Oregon

Dear Mr. Hart:

At your request and at the request of Koppers Industries, Inc. (Koppers), Hahn and Associates, Inc. (HAI) has completed soil sampling activities at the above referenced site necessary such that a Hazardous Waste Determination and Soil Disposal Profiling could be completed for soils that are located within an area of planned soil excavation. The excavation is necessary such that supports for a new tank foundation may be appropriately placed.

The planned excavation will extend to within 6 feet below ground surface (bgs) across an area measuring approximately 100 feet by 100 feet near the existing Koppers-area tank farm, generating an estimated 2,000 cubic yards of soil. Figure 1 is a Site Map depicting the location of the proposed tank foundation excavation, as well as the location of soil borings and monitoring wells that have been installed as part of ongoing Remedial Investigation (RI) activities at the site. Figure 2 depicts soil probe boring locations that were installed within the planned area of excavation such that soil samples could be collected for disposal profiling / hazardous waste determination purposes.

A brief description of site background, as well as soil sampling procedures and the results of the analytical testing, are provided below. The specific scope of the sampling event (number of samples and analytical testing requirements) was pre-approved by the intended disposal facility (Waste Management, Inc.) during a telephone conversation on April 2, 1999 (Mr. Rob Ede to Ms. Kristin Clayton).

General Site History

The site was the former location of the Portland Gas and Coke Company manufactured gas plant oil gasification facility from 1913 to 1956. Manufacturing processes at the site have involved the generation of town gas and pressed lampblack briquettes, aromatic generation and light oil recovery, tar recovery and refining, and the production of electrode grade coke and high Btu gas. Northwest Natural began construction of a liquefied natural gas (LNG) plant at the site in the late 1960's, at which time a majority of the old gasification plant facilities were demolished.

Koppers operated a coal tar pitch manufacturing facility at the southern portion of the former gasification facility from 1966 to 1973. Koppers currently uses the facility as a terminal for the distribution of coal tar oils. It is within the Koppers portion of the site that the proposed tank foundation excavation will take place. The area surrounding the proposed tank foundation excavation also corresponds to the area of the Light Oil Plant for the former Portland Gas and Coke Company manufactured gas plant oil gasification facility.

Soil Sample Collection

On April 5, 1999, depth discrete soil samples were collected within the area of planned excavation at each of the twelve soil probe locations indicated on Figure 2. All soil probe borings were installed to a depth of 6 feet bgs, corresponding to the depth of the planned excavation activities. Three soil samples were collected from each soil probe boring, with the collected samples corresponding to depths of approximately 1.5 feet bgs, 3.5 feet bgs, and 5.5 feet bgs.

The soil probes were installed by Geo-Tech Explorations, Inc. of Portland, Oregon, and were installed with a 1.5-inch outside diameter (OD) hydraulically-driven steel rod. Soil samples were collected using a 1.5-inch OD stainless steel split-spoon device with a disposable plastic liner that was advanced into the undisturbed soils 2 to 4 feet ahead of the probe tip. The soil probe was used to collect continuous soil cores to the bottom of each boring.

All soil samples collected were immediately placed in 4-ounce sample jars and capped with teflon-lined lids. The sample jars were then labeled and transferred to a chilled container for shipment to the analytical laboratory. Standard sampling protocols, including the use of chain-of-custody documentation, were followed for all sampling procedures.

The properties of each soil sample were noted by an HAI geologist in the field. Boring logs that describe the soils encountered via the soil probe borings as part of the investigation are included in Appendix A. An estimate of the Unified Soil Classification System (USCS) soil type designation is shown on the boring logs. The USCS designation was a field estimate only and was not confirmed by laboratory analyses.

All soil samples were field-screened for the presence of organic vapors by the headspace method using a Photovac MicroTip model MP-1000 equipped with a 10.6 ev lamp and photoionization detector (PID). Immediately following the collection of the sample, approximately 4 ounces of soil were placed in a quart size plastic bag and sealed. The sample was then set aside for a minimum 20-minute stabilization period, whereupon the detector probe was inserted through the seal into the bag. The results of the headspace screening are recorded on the boring logs in parts per million (ppm). The headspace method results should be considered qualitative and should be used for comparison purposes only.

Abandonment Procedures

Following completion of each soil probe boring installation, each boring was backfilled with granular bentonite.

Decontamination Procedures

All soil probe sampling equipment was decontaminated with a detergent solution wash followed by a double rinse with potable water between boring locations to prevent cross-contamination. Additionally, all non-disposable sampling equipment was similarly decontaminated prior to the collection of each sample.

Laboratory Analyses

Each of the three soil samples collected from an individual soil probe boring were composited by the analytical laboratory to produce one overall sample for each boring. As such, twelve composited soil samples, each representing average soil conditions within each of the twelve soil probe borings, were prepared for laboratory analysis.

Each of the twelve composited soil samples was analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) constituents via U.S. Environmental Protection Agency (EPA) Method 8020; for diesel and oil range petroleum hydrocarbons via Northwest (NW) Method TPH-Dx; and for gasoline range petroleum hydrocarbons via NW Method TPH-G. Additionally, four of the composited samples were selected for expanded analyses to include polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270 SIM, and for total cyanide by EPA Method 9010.

Based on the results of the above-identified benzene analyses, the soil sample collected from soil probe boring P-12 was further analyzed for leachable benzene via EPA Toxicity Characteristic Leaching Procedure (TCLP) Method 1311/8020.

A summary of analytical results from the above-identified analyses are provided in Tables 1a and 1b. Additionally, as requested by Waste Management, Inc, historical phenol data collected at the site as part of ongoing RI activities, have been provided in Table 2. Laboratory data sheets and chain-of-custody documentation are provided in Appendix B.

Analytical Results

Petroleum hydrocarbons, predominantly in the diesel and heavy oil range, were identified in soil samples representing all but two of the soil probe locations, with concentrations of up to 46,700 parts per million (ppm) combined total diesel and heavy oil range hydrocarbons being identified (P-8 location). Only low levels of gasoline-range petroleum hydrocarbons were identified in the soil, with the maximum identified concentration being 216 ppm (P-2 location).

Concentrations of total PAHs identified in the four samples selected for expanded analyses (P-2, P-6, P-9, and P-12) ranged from 80 ppm at the P-6 probe location, to 1,300 ppm at the P-2 probe location. Total cyanide concentrations in these same four samples were found to range from 1.6 ppm (P-6) to 57 ppm (P-2).

BTEX constituents were identified at low concentrations at numerous soil probe locations, with the maximum identified concentrations being identified at the P-12 probe location. With regard to benzene, the most significant detection was identified at the P-12 location, where a

concentration of 9.65 ppm was identified. The concentration of leachable (TCLP) benzene identified at the P-12 location was 0.119 ppm.

The results of the leachable benzene analysis (TCLP) indicated that soils represented by the P-12 soil probe boring do not exceed the characteristic hazardous waste regulatory level of 0.5 ppm for this constituent. As total benzene concentrations from all other probe locations (P-1 through P-11) did not exceed the leachable criteria, the possibility that leachable benzene exists at a concentration greater than the regulatory level at these locations, does not exist.

Solid / Hazardous Waste Determination

A Solid / Hazardous Waste Determination Worksheet is attached (Appendix C) for the soils proposed to be excavated. The worksheet identifies the source of the waste, sample identification numbers (if applicable), and the analyses that were performed for characterization purposes. The purpose of preparing the worksheet is to identify the waste stream as either a hazardous or non-hazardous solid waste.

The soils described here in could not be considered a "listed hazardous waste" because the material is not from a:

- Non-specific listed sources or process (F-listed)
- Specific listed industrial source or process (K-listed)
- Discarded commercial chemical product (U- or P-listed)

Based on a review of the analytical results described herein, combined with a review of historical soil quality data for the site, it appears that sufficient information exists such that soils within the proposed excavation area would be classified as petroleum contaminated non-hazardous solid waste. Specifically, the decision regarding the designation of the soil as non-hazardous was based on the toxicity characteristic data for leachable benzene, in conjunction with field observations and the extensive analytical database that has been generated as part of the RI for soils at the site.

The above-described waste-determination is pertinent only to soils within the planned excavation described herein. A separate waste determination would be necessary for soils located beyond the limits (laterally or vertically) of the proposed area of excavation.

Conclusions and Recommendations

Based analytical results from this investigation as well as from the RI, and knowledge of the process that generated the contamination (i.e., wastes), it appears that no additional analyses are necessary for waste determination purposes for the proposed tank foundation excavation at the Koppers portion of the Gasco facility. The results of the waste determination described herein indicate that the characterized soils would not meet the criteria for a hazardous waste classification upon removal.

Based on this determination, it appears appropriate that soils from the proposed excavation may be managed by a facility permitted to dispose of or treat non-hazardous petroleum-contaminated soils.

Please contact the undersigned with any questions. Thank you for the opportunity to be of service to Northwest Natural and Koppers Industries, Inc.

Sincerely,

Robert B. Ede
Sr. Project Manager, R.G.

c. Mr. Amos Kamerer, Koppers Industries, Inc.
Mr. Michael Hayward, Northwest Natural

Koppers018925

TABLES

Koppers018926

TABLE 1a – Summary of Analytical Results for Soil Samples
TPH, BTEX, Total PAHs, and Cyanide
Proposed Above Ground Storage Tank Foundation Excavation Area
Koppers Industries - Northwest Natural Gasco Facility
Portland, Oregon

Project No. 2708

Soil Boring Number	Sample Number[1]	Sample Date	Depth (feet bgs)	Field Observation (as observed within the depth interval of 0 to 6 feet bgs)				Analytical Results mg/kg (ppm)										
								ODEQ Method			EPA Method 8270 SIM		EPA Method 8020					EPA Method 1311 / 8020	EPA Method 9010
								NW TPH-G	NW TPH-Dx									
				Sheen	Oil Tar	Tar	Lamp Black	Gasoline	Diesel	Heavy Oil	Carcinogenic PAHs	Total PAHs	Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	Leachable Benzene (mg/L)	Total Cyanide
P-1	990405-P1	5-Apr-99	0.5 / 3.5 / 5.5 (composite)	X				ND>5.88	ND>17.6	ND>58.8	-	-	ND>0.0294	ND>0.0294	ND>0.0294	ND>0.0882	ND	-	-
P-2	990405-P2	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X	X	X	X	216.	5,570.	13,100.	671	1,307	ND>0.305	0.385	15.1	27.	42.485	-	57.
P-3	990405-P3	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X	X		X	100.	3,970.	3,820.	-	-	0.135	0.341	4.37	9.43	14.276	-	-
P-4	990405-P4	5-Apr-99	2.0 / 3.5 / 5.5 (composite)	X			X	79.	3,680.	3,520.			0.205	0.681	2.36	7.22	10.466	-	-
P-5	990405-P5	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X			X	ND>5.62	ND>16.9	ND>56.2	-	-	ND>0.0281	ND>0.0281	ND>0.0281	ND>0.0843	ND	-	-
P-6	990405-P6	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X		X	X	ND>5.75	150.	447.	42	80	ND>0.0287	ND>0.0287	ND>0.0287	ND>0.0862	ND	-	1.6
P-7	990405-P7	5-Apr-99	2.0 / 3.5 / 5.5 (composite)	X	X		X	25.3	473.	931.	-	-	0.0427	0.0715	0.423	1.15	1.687	-	-
P-8	990405-P8	5-Apr-99	2.0 / 3.5 / 5.5 (composite)	X			X	21.5	14,900.	31,800.	-	-	0.076	0.107	0.176	0.215	0.574	-	-
P-9	990405-P9	5-Apr-99	0.5 / 3.5 / 5.5 (composite)	X			X	ND>5.68	434.	1,060.	82	160	ND>0.0284	ND>0.0284	ND>0.0284	ND>0.0852	ND	-	2.4
P-10	990405-P10	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X			X	ND>5.68	3,300.	4,520.	-	-	ND>0.0284	ND>0.0284	ND>0.0284	ND>0.0852	ND	-	-
P-11	990405-P11	5-Apr-99	2.0 / 4.0 / 5.5 (composite)	X			X	18.4	6,910.	9,700.	-	-	ND>0.0278	0.0291	0.0397	ND>0.0833	0.069	-	-
P-12	990405-P12	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	X	X			107.	5,580.	7,780.	580	1,205	9.65	8.53	1.03	3.5	22.71	0.119	7.4

NOTE: 1 = Sample number prefix: 2708-
BTEX = benzene, toluene, ethylbenzene, and xylenes
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams/kilogram
ND = not detected above detection limit indicated
NW = Northwest Method
ODEQ = Oregon Department of Environmental Quality
PAHs = polynuclear aromatic hydrocarbons
ppm = parts per million
TPH = total petroleum hydrocarbons

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Table 1b – Summary of Analytical Results for Soil Samples, PAHs by EPA Method 8270 (SIM)

Proposed Above Ground Storage Tank Foundation Excavation Area
Koppers Industries - Northwest Natural Gasco Facility
Portland, Oregon

Project No. 2708

PAHs by EPA Method 8270 (SIM)				Analytical Results mg/kg (ppm)																	
				Carcinogenic PAHs							Non-carcinogenic PAHs										
Soil Boring	Sample Numbers	Sample Date	Sample Depth (feet bgs)	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Chrysene	Dibenzo (ah) anthracene	Indeno (1,2,3-cd) pyrene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (ghi) perylene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total Non-Carcinogenic PAHs
P-2	990405-P2	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	102.	146.	46.3	159.	113.	17.1	87.8	7.56	5.24	15.9	134.	134.	5.24	39.	74.4	220.	671.2	635.34
P-6	990405-P6	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	6.67	8.97	3.1	9.31	7.36	1.38	5.63	ND>0.575	ND>0.575	1.15	8.74	8.85	ND>0.575	ND>0.575	4.83	13.8	42.42	37.37
P-9	990405-P9	5-Apr-99	0.5 / 3.5 / 5.5 (composite)	12.5	19.3	5.91	17.	13.6	2.73	11.4	0.625	1.36	2.27	17.	18.2	0.682	1.02	10.7	26.1	82.44	77.957
P-12	990405-P12	5-Apr-99	1.5 / 3.5 / 5.5 (composite)	87.7	136.	39.5	136.	84.	14.8	81.5	2.72	10.9	14.8	114.	173.	7.41	6.42	86.4	210.	579.5	625.65

Note: 1 = Sample number prefix: 2708-
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams/kilogram
ND = Not detected above detection limit indicated
PAHs = polynuclear aromatic hydrocarbons
ppm = parts per million

Koppers018928

TABLE 2 – Summary of Analytical Results for Remedial Investigation Soil Samples
Phenols by EPA Method 8270

Remedial Investigation
Northwest Natural - Gasco Facility
Portland, Oregon

Project No. 2708

Phenols by EPA Method 8270					Analytical Results mg/kg (ppm)															
Soil Boring	Sample Number	Chain of Custody Number	Sample Date	Sample Depth (feet bgs)	4-Chloro-3-methylphenol	2-Chlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Methyl-4,6-dinitrophenol	Cresols, Total	4-Methylphenol	2-Nitrophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Phenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	Total Phenols
B-03	950921-B3-05	2708-S007	21-Sep-95	10.5	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>3.3	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND
B-10	950925-B10-04	2708-S013	25-Sep-95	17.5	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>9.9	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND
B-13	951006-B13-03	2708-S035	6-Oct-95	10.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-17	950929-B17-05	2708-S022	29-Sep-95	16.5	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>9.9	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND
B-18	950919-B18-05	2708-S003	19-Sep-95	12.0	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	**0.36**	ND>0.17	ND>0.17	ND>0.17	0.36
B-19	950919-B19-01	2708-S003	19-Sep-95	0.2	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.33	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND
B-19	950919-B19-03	2708-S004	19-Sep-95	6.5	ND>26	ND>26	ND>26	ND>26	ND>50	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND
B-20	950929-B20-03	2708-S022	29-Sep-95	10.5	ND>26	ND>26	ND>26	ND>26	ND>50	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND
B-22	951003-B22-05	2708-S027	3-Oct-95	13.5	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.33	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND
B-22	951003-B22-09	2708-S028	3-Oct-95	24.0	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>.33	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND>0.17	ND
B-23	951003-B23-08	2708-S029	3-Oct-95	26.5	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>2.0	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND>0.8	ND
B-26	951003-B26-06	2708-S030	4-Oct-95	20.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-27	950920-B27-10	2708-S005	20-Sep-95	23.0	ND>26	ND>26	ND>26	ND>26	ND>50	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND>26	ND
B-28	951002-B28-01	2708-S025	2-Oct-95	0.2	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>9.9	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND>5.1	ND
B-28	951002-B28-07	2708-S025	2-Oct-95	15.0	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-29	950922-B29-15	2708-S012	22-Sep-95	35.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-30	950922-B30-06	2708-S010	22-Sep-95	11.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-31	950925-B31-06	2708-S014	25-Sep-95	21.0	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-33	951005-B33-03	2708-S034	5-Oct-95	5.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
B-33	951005-B33-14	2708-S034	5-Oct-95	54.0	ND>17	ND>17	ND>17	ND>17	ND>33	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND>17	ND
B-35	951005-B35-01	2708-S033	5-Oct-95	0.2	ND>.17	ND>.17	ND>.17	ND>.17	ND>.33	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND>.17	ND
MW-04-57	951030-M4-01	2708-S043	30-Oct-95	0.2	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
MW-04-57	951030-M4-06	2708-S043	30-Oct-95	25.5	ND>51	ND>51	ND>51	ND>51	ND>99	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND>51	ND
MW-10-60	951108-M10-01	2708-S052	8-Nov-95	0.2	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>6.6	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND>3.4	ND
MW-12-34	951023-M12-06	2708-S038	23-Oct-95	22.0	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>3.3	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND>1.7	ND
ODEQ Soil Cleanup Levels [2]					#	#	#	#	#	#	#	#	#	#	#	5	#	#	2	#
EPA PRGs for Industrial Soil [3]					#	367	2,044	13,625	1,363	#	34,063	3,406	#	#	20,438	7.95	100,000	68,126	173	#

Note: ODEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams/kilogram

ND = Not detected above detection limit indicated
ppm = parts per million
PRGs = EPA Region 9 Preliminary Remediation Goals

[1] = Sample number prefix: 2708-
[2] = Reference Levels are Soil Cleanup Levels in the Soil Cleanup Table (OAR 340-122-045)
[3] = Reference Levels are EPA Region 9 Preliminary Remediation Goals (PRGs) for Industrial Soil
# = Reference level not established

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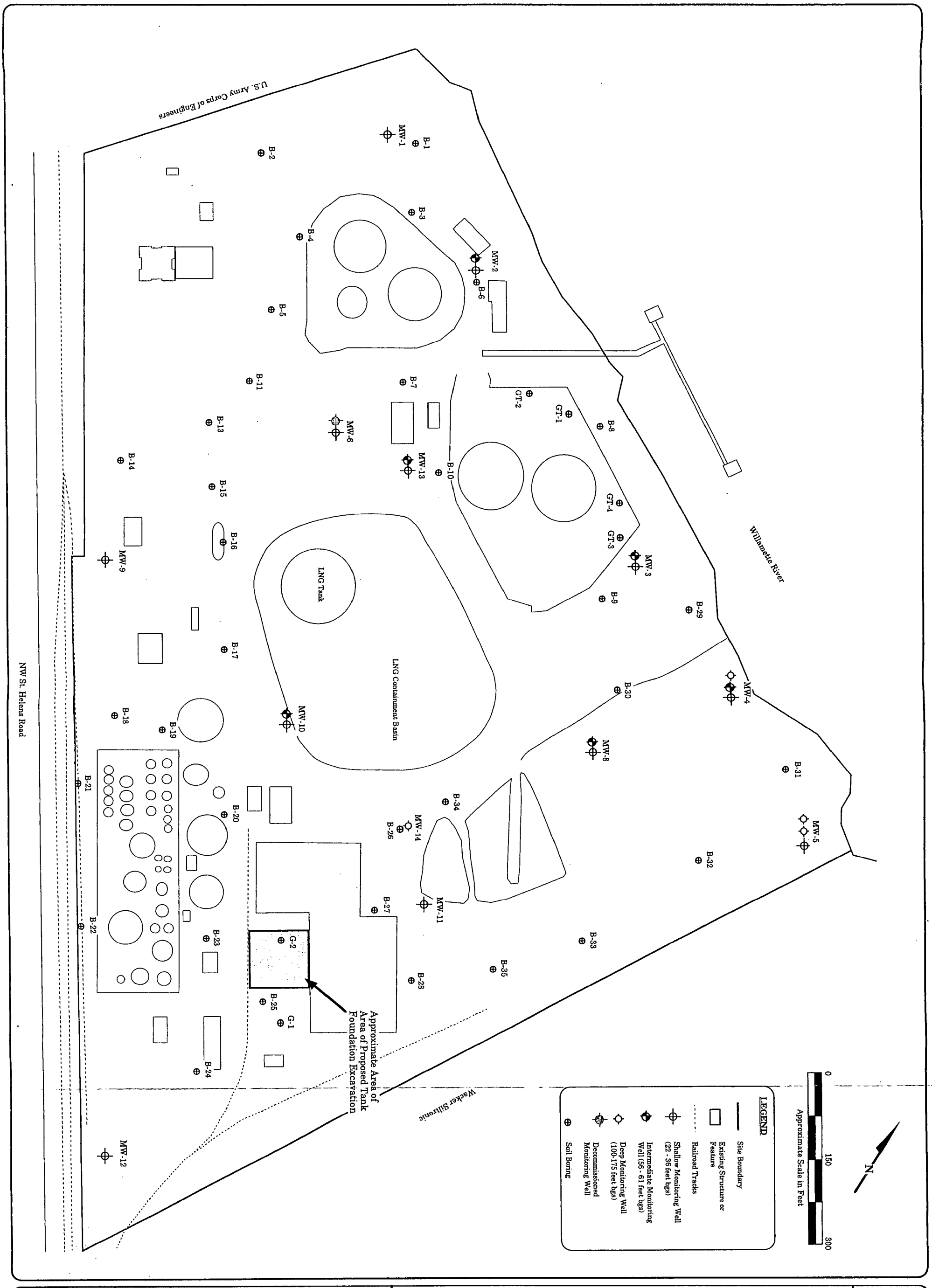
FIGURES

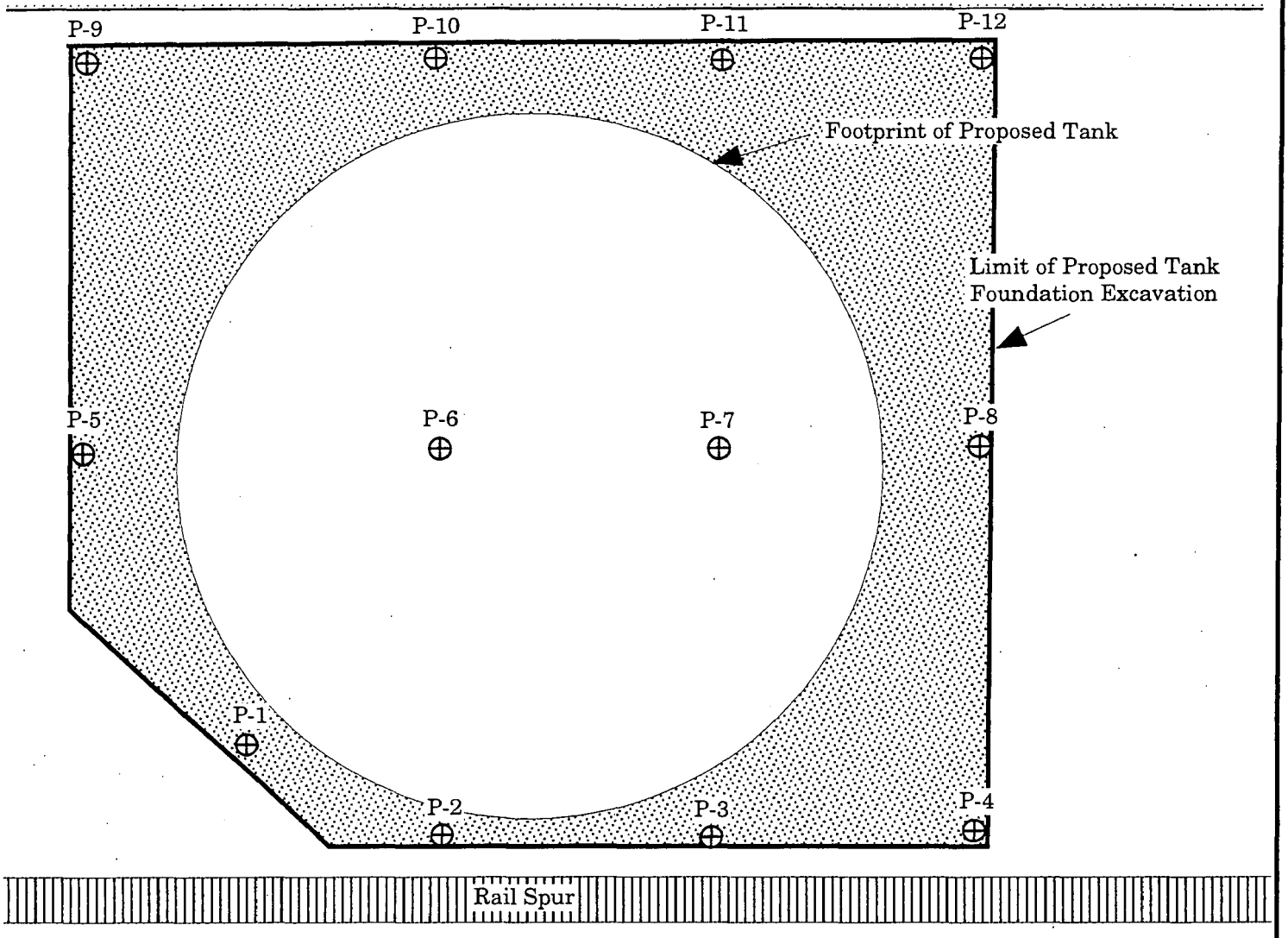
Koppers018930

Koppers018931



NW St. Helens Road

Project No. 2708	April 1999	**HAHN & ASSOCIATES, INC.** ENVIRONMENTAL MANAGEMENT 434 NW SIXTH AVENUE, SUITE 203 PORTLAND, OREGON 97209 503/796-0717	**Site Map** Proposed Tank Foundation Excavation Koppers Industries 7540 NW St. Helens Road Portland, Oregon	Figure 1



LEGEND

- Existing Structure
- Area of Proposed Tank Foundation Excavation
- Soil Probe Boring Location

0 20 40

Scale in Feet

N

Project No. 2708 April 1999	**HAHN AND ASSOCIATES, INCORPORATED** ENVIRONMENTAL MANAGEMENT 434 NW SIXTH AVENUE, SUITE 203 PORTLAND, OREGON 97209 (503) 796-0717	**Sample Location Map Proposed Tank Foundation Excavation** Kopper's Industries 7540 NW St. Helens Road Portland, Oregon	**FIGURE 2**

APPENDICES

Koppers018933

A

APPENDIX A

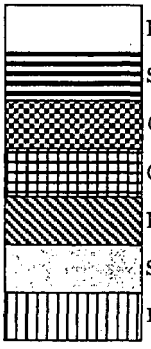
Soil Boring Logs

KEY TO BORING LOGS

Soil classification in this report is based upon visual and manual field observations which include moisture, consistency, plasticity and grading estimates and should not be construed to imply field or laboratory testing unless presented herein. Soils are classified in accordance with the Unified Soil Classification System. Stratigraphic boundaries are approximate representations only. No warranty is provided as to the continuity of soil strata between borings.

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)				
MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COURSE GRAINED SOILS	GRAVELS More Than Half the Course Fraction is Larger Than No. 4 Sieve Size	Clean Gravels With Little or No Fines	GW	Well Graded Gravels, Gravel-Sand Mixtures
			GP	Poorly Graded Gravels, Gravel-Sand Mixtures
		Gravels With Over 12% Fines	GM	Silty Gravels, Poorly Graded Gravel-Sand-Silt Mixtures
			GC	Clayey Gravels, Poorly Graded Gravel-Sand-Clay Mixtures
More Than Half is Larger Than #200 Sieve	SANDS More Than Half the Course Fraction is Smaller Than No. 4 Sieve Size	Clean Sands With Little or No Fines	SW	Well Graded Sands, Gravelly Sands
			SP	Poorly Graded Sands, Gravelly Sands
		Sands With Over 12% Fines	SM	Silty Sands, Poorly Graded Sand-Silt Mixtures
			SC	Clayey Sands, Poorly Graded Sand-Clay Mixtures
FINE GRAINED SOILS	SILTS AND CLAYS Liquid Limit Less Than 50%		ML	Inorganic Silts and Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands, or Clayey Silts with Slight Plasticity
			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays
			OL	Organic Clays and Organic Silty Clays of Low Plasticity
More Than Half is Smaller Than #200 Sieve	SILTS AND CLAYS Liquid Limit Greater Than 50%		MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silts
			CH	Inorganic Clays of High Plasticity, Fat Clays
			OH	Organic Clays of Medium to High Plasticity, Organic Silts
HIGHLY ORGANIC SOILS			Pt	Peat and Other Highly Organic Soils

LEGEND FOR BORING LOGS



- Blank Casing
- Slotted Screen
- Cement Grout
- Concrete
- Bentonite
- Sand Pack
- Fill Material

ABBREVIATIONS

NA	Not Applicable
ND	Not Detected Above Detection Limit
NS	Not Sampled
TPH	Total Petroleum Hydrocarbons
HCID	Hydrocarbon Identification
ppm	Parts Per Million
SPT	Standard Penetration Test
▽	Measured Static Water Level in Well
▼	Estimated Water Level During Drilling

Updated: 4/7/99 RBE
File: Boring Log Key

HAHN AND ASSOCIATES, INC.

Koppers018936

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-1**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 10:06	DRILL FINISH Time: 10:25
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION	
Granular Bentonite										Asphalt surface	
	001	10:10	3.0	-			1		ML	SILT - olive gray, moist, slightly plastic, hydrocarbon odor, slight sheen (0.5-1.0 feet below ground surface)	
							2				
							3		SP	SAND - brown, moist, medium grained, some gravel, no odor, no sheen, no discoloration (1.0-4.0 feet below ground surface)	
	002	10:11	-	-			4				
							5			SAND - as above, hydrocarbon odor, slight sheen, slight grey discoloration (4.0-6.0 feet below ground surface)	
			5.0								
	003	10:20		-			6				
							7				
							8				
							9				
							10				
							11				
							12				
							13				
							14				
							15				
							16			Boring terminated at 6.0 feet bgs	
							17			Groundwater not encountered	
							18			* Sample number prefix = 2708-990405-	
							19			Samples were composited by lab into sample 2708-990405-P1	
							20				

BORING DIAMETER:	1.5-inch OD	
CASING DIAMETER:	N/A	
SURFACE ELEVATION:	Not Surveyed	
TOP OF CASING ELEVATION:	N/A	

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-2**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 10:26	DRILL FINISH Time: 10:36
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1			Asphalt surface
									GP	Sandy GRAVEL - moist, medium grained, hydrocarbon odor, lampblack and hardened tar (1.0-1.5 feet below ground surface), black oil stained zone (1.5-2.0 feet below ground surface)
	004	10:28	1.0	-			2			
							3			SAND - gray, moist, medium grained, hydrocarbon odor, slight sheen, slight gray discoloration (2.0-4.0 feet below ground surface)
	005	10:30	7.0	-			4		SP	
							5			SAND - as above (4.0-6.0 feet below ground surface)
	006	10:36	7.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			
							17			Boring terminated at 6.0 feet bgs
							18			Groundwater not encountered
							19			* Sample number prefix = 2708-990405-
							20			Samples were composited by lab into sample 2708-990405-P2

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-3**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 10:40 Date: 5-Apr-99	DRILL FINISH Time: 10:52 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1			Asphalt surface
	007	10:46	21.0	-			2		GP	Sandy GRAVEL - gray to black, moist, medium grained sand, lampblack (0.5 to 2.0 feet below ground surface), hydrocarbon odor, no sheen
							3			
	008	10:47	6.0	-			4		SP	SAND - brown, very moist, medium grained, hydrocarbon odor, slight sheen, black oil stained zone (2.0-3.0 feet below ground surface)
							5			
	009	10:50	17.0	-			6			SAND - as above, hydrocarbon odor, slight sheen, no oil staining (4.0-6.0 feet below ground surface).
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs
							17			Groundwater not encountered
							18			* Sample number prefix = 2708-990405-
							19			Samples were composited by lab into sample 2708-990405-P3
							20			

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-4**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 10:55 Date: 5-Apr-99	DRILL FINISH Time: 11:06 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1			Asphalt surface
							2		GP	Sandy GRAVEL - moist, medium grained sand, lampblack from 2.0 to 2.5 feet below ground surface, hydrocarbon odor, no sheen
	010	10:59	19.0	-			3			SAND - light brown, moist, medium grained, hydrocarbon odor, slight sheen (3.0-4.0 feet below ground surface)
	011	11:00	9.0	-			4	▼	SP	SAND - as above, wet, hydrocarbon odor, slight sheen (4.0-6.0 feet below ground surface)
							5			
	012	11:03	17.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			
							17			
							18			
							19			
							20			

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

Boring terminated at 6.0 feet bgs

* Sample number prefix = 2708-990405-

Samples were composited by lab into sample 2708-990405-P4

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-5**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 11:11 Date: 5-Apr-99	DRILL FINISH Time: 11:25 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)
Granular Bentonite							1		SP
	013	11:17		-			2		
			8.0				3		
	014	11:18	8.0	-			4		
							5		
	015	11:22	-	-			6		
							7		
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

SOIL DESCRIPTION

Asphalt surface

SAND - light brown, moist, medium grained, lampblack from 1.0-1.5 feet below ground surface, hydrocarbon odor, slight sheen (2.0-4.0 feet below ground surface)

SAND - as above, no lampblack, hydrocarbon odor, slight sheen (4.0.-6.0 feet below ground surface)

Boring terminated at 6.0 feet bgs

Groundwater not encountered

* Sample number prefix = 2708-990405-

Samples were composited by lab into sample 2708-990405-P5

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-6**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 11:32	DRILL FINISH Time: 11:42
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1			Asphalt surface
									GP	Sandy GRAVEL - moist, medium grain, hydrocarbon odor, slight sheen, some lampblack (0.5-1.5 feet below ground surface)
	016	11:36		-			2			
			9.0				3			SAND - light brown, moist, medium grained, ball of hardened tar at 3.0 feet below ground surface, hydrocarbon odor, slight sheen, (1.5-4.0 feet below ground surface)
	017	11:37	9.0	-			4		SP	
							5			SAND - as above, hydrocarbon odor, slight sheen, (4.0-6.0 feet below ground surface)
	018	11:41	9.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs
							17			Groundwater not encountered
							18			* Sample number prefix = 2708-990405-
							19			Samples were composited by lab into sample 2708-990405-P6
							20			

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-7**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 11:48 Date: 5-Apr-99	DRILL FINISH Time: 11:58 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	DEPTH (feet)	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite					1	GP	Asphalt surface Sandy GRAVEL - moist, medium grained sand, hydrocarbon odor, slight sheen, some lampblack (0.5-2.0 feet below ground surface)
					2		
	019	11:54	14.0	-	3	SP	SAND - gray, moist, medium grained, hydrocarbon odor, slight sheen, black oil staining at 2.0 feet below ground surface (2.0-4.0 feet bgs)
	020	11:55	12.0	-	4		
					5		SAND - as above, wet at 5.5 feet below ground surface, increasing petroleum odor with depth, slight sheen (4.0-6.0 feet bgs)
	021	11:58	33.0	-	6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		Boring terminated at 6.0 feet bgs
					17		* Sample number prefix = 2708-990405-
					18		Samples were composited by lab into sample 2708-990405-P7
					19		
					20		

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-8**			
	HAI LOGGER:	Jason M. Greifer	DRILL START	DRILL FINISH
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	SAMPLING METHOD:	Stainless Steel Soil Sampler	Time: 12:03	Time: 12:13
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1		GP	Asphalt surface Sandy GRAVEL - moist, medium grained, hydrocarbon odor, slight sheen, lampblack (0.5-2.5 feet below ground surface)
							2			
	022	12:08	28.0	-			3			
							4		SP	SAND - gray, medium grained, hydrocarbon odor, moderate sheen, (2.5-4.0 feet below ground surface)
	023	12:09	14.0	-			5			SAND - as above (4.0-6.0 feet below ground surface)
	024	12:12	47.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs Groundwater not encountered * Sample number prefix = 2708-990405- Samples were composited by lab into sample 2708-990405-P8
							17			
							18			
							19			
							20			

Koppers018944

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-9**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 12:18 Date: 5-Apr-99	DRILL FINISH Time: 12:30 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite										Asphalt surface
	025	12:22		-			1		GP	Sandy GRAVEL - brown and black, moist, medium grained sand, lampblack from 0.5-1.0 feet below ground surface, hydrocarbon odor, slight sheen (0.5 to 2.5 feet below ground surface)
			10.0				2			
							3			
	026	12:23	15.0	-			4		SP	SAND - light brown, moist, medium grained, hydrocarbon odor, slight sheen, (2.5-4.0 feet below ground surface)
							5			
	027	12:28	16.0	-			6			SAND - as above, hydrocarbon odor, slight sheen (4.0-6.0 feet below ground surface)
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs
							17			Groundwater not encountered
							18			* Sample number prefix = 2708-990405-
							19			Samples were composited by lab into sample 2708-990405-P9
							20			

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-10**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon PROJECT #: 2708-99	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 12:37 Date: 5-Apr-99	DRILL FINISH Time: 12:47 Date: 5-Apr-99
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson		
	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1		GP	Asphalt Surface Sandy GRAVEL - moist, medium grained sand, lampblack from 1.5-2.0 feet below ground surface, hydrocarbon odor, slight sheen
	028	12:42	11.0	-			2			
							3		SP	SAND - light brown, moist, medium grained, hydrocarbon odor, slight sheen, (2.0-4.0 feet below ground surface)
	029	12:43	15.0	-			4			
							5			SAND - as above, hydrocarbon odor, slight sheen, (4.0-6.0 feet below ground surface)
	030	12:45	17.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs Groundwater not encountered * Sample number prefix = 2708-990405- Samples were composited by lab into sample 2708-990405-P10
							17			
							18			
							19			
							20			

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-11**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 12:50	DRILL FINISH Time: 12:54
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
Granular Bentonite							1			Asphalt
							2		GP	Sandy GRAVEL - moist, gray and brown, some lampblack at 2.5 feet below ground surface, hydrocarbon odor, slight sheen (0.5-2.5 feet below ground surface)
	031	12:58	10.0	-			3			
							4		SP	SAND - light brown, moist, medium grained, one-inch layer of lampblack at 3.0 feet below ground surface, hydrocarbon odor, slight sheen (2.5-4.0 feet below ground surface)
	032	13:00	10.0	-			5			
	033	13:04	18.0	-			6			SAND - as above, hydrocarbon odor, slight sheen (4.0-6.0 feet below ground surface)
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs
							17			Groundwater not encountered
							18			* Sample number prefix = 2708-990405-
							19			Samples were composited by lab into sample 2708-990405-P11
							20			

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

HAHN & ASSOCIATES, INC. 434 NW Sixth Avenue Portland, Oregon (503) 796-0717	**SOIL PROBE NUMBER P-12**			
PROJECT: Koppers / NW Natural NW St. Helens Road Portland, Oregon	HAI LOGGER:	Jason M. Greifer	DRILL START Time: 13:08	DRILL FINISH Time: 13:25
	SAMPLING METHOD:	Stainless Steel Soil Sampler		
	DRILLING METHOD:	Hydraulic Soil Probe		
	EQUIPMENT TYPE	Geo Probe		
	DRILLER:	Tom Wilson	Date: 5-Apr-99	Date: 5-Apr-99
PROJECT #: 2708-99	DRILLING CONTRACTOR:	Geo-Tech Explorations, Inc.		

ABANDONMENT DETAILS	SAMPLE NUMBER*	TIME	HEADSPACE (ppm)	LAB RESULT NWTPH-Dx (ppm)	CORE INTERVAL	SAMPLE RECOVERY	DEPTH (feet)	GROUNDWATER	STRATA (USCS)	SOIL DESCRIPTION
										Concrete Surface
Granular Bentonite							1		GP	Sandy GRAVEL - brown, moist, hydrocarbon odor, slight sheen (0.5-1.5 feet below ground surface)
	034	13:17	-	-			2			
							3			SAND - light brown, medium grained, hydrocarbon odor, slight sheen, black oil stained zone 2.0-4.0 feet below ground surface (1.5-4.0 feet below ground surface)
	035	13:18	20.0	-			4		SP	
							5			SAND - grey, moist, less black staining, increase in hydrocarbon odor, slight sheen (4.0-6.0 feet below ground surface)
	036	13:23	29.0	-			6			
							7			
							8			
							9			
							10			
							11			
							12			
							13			
							14			
							15			
							16			Boring terminated at 6.0 feet bgs
							17			Groundwater not encountered
							18			* Sample number prefix = 2708-990405-
							19			Samples were composited by lab into sample 2708-990405-P12
							20			

BORING DIAMETER:	1.5-inch OD
CASING DIAMETER:	N/A
SURFACE ELEVATION:	Not Surveyed
TOP OF CASING ELEVATION:	N/A

B

APPENDIX B

Chain of Custody Documentation and Laboratory Report
April 5, 1999 Soil Probe Sampling Event

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory ENVIRONMENTAL SERVICES LABORATORY, INC. PORTLAND, OREGON

Lab Project No.

CHAIN OF CUSTODY

Chain of Custody No. PAGE 1 OF 5

Project Manager ROB EDE
Project No. 2708-99
Project Name KAPPERS Soil characterization
Collected by JAY GREIFER

Liquid with Sediment Sample
Test Filtrate | Test Sediment | Test Both
Multi-Phase Sample
Test One (which) | Test Separately | Shake

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N)
Provide Preliminary Fax Results Y

Comments
* SAMPLE PREFIX = 2708-99040S-

PLEASE COMPOSITE AS INDICATED.

RUSH (RESULTS BY AM, APRIL 7TH).

Lab ID	*Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	Analyses to be Performed: NWTPH-G/EPA 8020 (gasoline/BTEX)	NWTPH-DX (diesel, oil-range)	EPA 8270-SIM (PAHs)	EPA 9010 (TOTAL CYANIDE)	RUSH	Remarks
	-001	4/5/99	1010		X			1						COMPOSITE AS FOLLOWS: NEW SAMPLE 2708-990405- P-1
	-002		1011		X			1						
	-003		1020		X			1						
	-P1			COMPOSITE OF -001, -002, -003	X			0	X	X			X	
	-004		1028		X			1						P-2
	-005		1030		X			1						
	-006		1035		X			1						
	-P2			COMPOSITE OF -004, -005, -006	X			0	X	X	X	X	X	
	-007		1046		X			1						P-3
	-008		1047		X			1						
	-009		1050		X			1						

Relinquished by	Company	Date	Time	Received by	Company
[signature]	HAI	4/5/99	1457	[signature]	ESL
Relinquished by	Company	Date	Time	Received by	Company
Relinquished by	Company	Date	Time	Received by	Company

Koppers018951

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory: ENVIRONMENTAL SERVICES LABORATORY, INC.
Lab Project No.:

CHAIN OF CUSTODY

Chain of Custody No.: PAGE 2 OF 3

Project Manager: ROB EDE
Project No.: 2708-99
Project Name: KOPPERS SITE CHARACTERIZATION
Collected by: JAY GREIFER

Liquid with Sediment Sample
____ Test Filtrate ____ Test Sediment ____ Test Both
Multi-Phase Sample
____ Test One (which) ____ Test Separately ____ Shake

Samples Received at 4C (Y or N):
Appropriate Containers Used (Y or N):
Provide Verbal Results (Y or N):
Provide Preliminary Fax Results: Y

Comments
* SAMPLE PREFIX= 2708-990405-
PLEASE COMPOSITE AS INDICATED.
RUSH (RESULTS BY AM, APRIL 7TH)

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	NW TPHG/EPA 8020 (gasoline/BTEX)	NW TPH-Dx (diesel, oil-range)	EPA 8270-SIM (PAHs)	EPA 9010 (TOTAL CYANIDE)						RUSH	Remarks
	-P3	4/5/99		composite of -007, -008, -009	X			0	X	X									
	-010		1059		X			1											P-4
	-011		1100		X			1											
	-012		1103		X			1											
	-P4			composite of -010, -011, -012				0	X	X									
	-013		1117		X			1											P-5
	-014		1118		X			1											
	-015		1122		X			1											
	-P5			composite of -013, -014, -015				0	X	X									
	-016		1136		X			1											P-6
	-017		1137		X			1											

Relinquished by	Company	Date	Time	Received by	Company
[signature]	HAI	4/5/99	1452	[signature]	ESL
Relinquished by	Company	Date	Time	Received by	Company
Relinquished by	Company	Date	Time	Received by	Company

Koppers018952

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory: ENVIRONMENTAL SERVICES LABORATORY, INC.
Lab Project No.:

CHAIN OF CUSTODY
Chain of Custody No.: PAGE 3 of 5

Project Manager: Rob EDE
Project No.: 2708-99
Project Name: KOPPERS SITE CHARACTERIZATION
Collected by: JAY GREIFER

Liquid with Sediment Sample
___ Test Filtrate ___ Test Sediment ___ Test Both
Multi-Phase Sample
___ Test One (which) ___ Test Separately ___ Shake

Samples Received at 4C (Y or N):
Appropriate Containers Used (Y or N):
Provide Verbal Results (Y or N):
Provide Preliminary Fax Results: Y

Comments
SAMPLE PREFIX = 2708-990405-
PLEASE COMPOSITE AS INDICATED.
RUSH (RESULTS BY AM, APRIL 7th)

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	Analyses to be Performed: NW TPH-G/EPA 8020 (gasoline/BTEX)	NW TPH-DX (diesel, oil-range)	EPA 8270 SIM (PAHs)	EPA 9010 (Total Cyanide)	RUSH	Remarks
	-018	4/5/99	1141		X			1						P-6
	-P6			COMPOSITE OF -016, -017, -018					X	X	X	X	X	
	-019		1154		X			1						P-7
	-020		1155		X			1						
	-021		1158		X			1						
	P-7			COMPOSITE OF -019, -020, -021					X	X			X	
	-022		1208		X			1						P-8
	-023		1209		X			1						
	-024		1212		X			1						
	P-8			COMPOSITE OF -022, -023, -024					X	X			X	
	-025		1222		X			1						P-9

Relinquished by	Company	Date	Time	Received by	Company
[signature]	HAI	4/5/99	1452	Matt Heaven	ESL
Relinquished by	Company	Date	Time	Received by	Company
Relinquished by	Company	Date	Time	Received by	Company

Koppers018953

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory ENVIRONMENTAL SERVICES LABORATORY, INC.
Lab Project No.

CHAIN OF CUSTODY
Chain of Custody No. PAGE 4 of 5

Project Manager ROB EDE
Project No. 2708-99
Project Name KOPPERS
Collected by JMG

Liquid with Sediment Sample
___ Test Filtrate ___ Test Sediment ___ Test Both
Multi-Phase Sample
___ Test One (which) ___ Test Separately ___ Shake

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N)
Provide Preliminary Fax Results

Comments
* SAMPLE PREFIX= 2708-990405-

PLEASE COMPOSITE AS INDICATED.

RUSH (RESULTS BY AM, APRIL 7th)

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	Analyses to be Performed: NW TPH 6/EPA 8020 (Gasoline/BTEX)	NW TPH-DX (Diesel, oil range)	EPA 8270 SIM (PAHs)	EPA 8010 (Total Chloride)	RUSH	Remarks
	-026	4/5/99	1223		X			1						→ P-9
	-027		1223		X			1						
	-P9			COMPOSITE OF -025,-026,-027				0	X	X	X	X	X	
	-028		1242		X			1						→ P-10
	-029		1243		X			1						
	-030		1245		X			1						
	-P10			COMPOSITE OF -028,-029,-030				0	X	X			X	
	-031		1158		X			1						→ P-11
	-032		1300		X			1						
	-033		1304		X			1						
	-P11	▽							X	X			X	

Relinquished by	Company	Date	Time	Received by	Company
JM Hooper	PAI	4/5/99	1452	Matt Heavener	ESL
Relinquished by	Company	Date	Time	Received by	Company
Relinquished by	Company	Date	Time	Received by	Company

Koppers018954

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory: ESL
Lab Project No.:

CHAIN OF CUSTODY

Chain of Custody No.: PAGE 5 of 5

Project Manager: ROB ELDE
Project No.: 2708-99
Project Name: KOPPERS
Collected by: JMG

Liquid with Sediment Sample
____ Test Filtrate ____ Test Sediment ____ Test Both
Multi-Phase Sample
____ Test One (which) ____ Test Separately ____ Shake

Samples Received at 4C (Y or N):
Appropriate Containers Used (Y or N):
Provide Verbal Results (Y or N):
Provide Preliminary Fax Results:

Comments:
* SAMPLE PREFIX = 2708-990405-
PLEASE COMPOSITE AS INDICATED.

RUSH (RESULTS BY AM, APRIL 7TH)

Lab ID	*Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	NW TPH-G/EPA 8020 (gasoline/BTEX)	NW TPH-DX (diesel, oil range)	EPA 8270-SIM (PAHs)	EPA 9010 CTOML CYANIDE					RUSH	Remarks
	-034	4/5/99	1317		X			1										COMPOSITE AS FOLLOWS: P12
	-035	"	1318		X			1										
	-036	"	1323		X			1										
	-P12	"							X	X	X	X					X	

Relinquished by	Company	Date	Time	Received by	Company
[signature]	HAI	4/5/99	1452	Matt Heavener	ESL
Relinquished by	Company	Date	Time	Received by	Company
Relinquished by	Company	Date	Time	Received by	Company

Koppers018955

Environmental Services Laboratory, Inc. E S L

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 670-8520

April 09, 1999

Mr. Rob Ede
Hahn & Associates
434 N.W. 6th Avenue
Suite 203
Portland, OR 97209

TEL: (503)796-0717
FAX (503) 227-2209

RE: 2708-99/Kappers soil characterization Order No.: 9904024

Dear Mr. Rob Ede,

Environmental Services Laboratory received 12 samples on 4/5/99 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
- BTEX\GAS, Aqueous (btEX/Gas)
- BTEX\GAS, Soil (btEX/Gas)
- Cyanide (cyanide)
- NWTPH-Dx Soil (NW TPH-Dx)
- PAH BY SIM, Soil (SW8270B)
- PERCENT MOISTURE (D2216)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval from the Laboratory.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Kimberly Hill
Project Manager

Technical Review

ANALYTICAL SERVICES FOR THE ENVIRONMENT

Environmental Services Laboratory Date: *09-Apr-99*

CLIENT: Hahn & Associates
Project: 2708-99/Kappers soil characterization
Lab Order: 9904024

CASE NARRATIVE

Analytical Comments for METHOD 04 BG S, SAMPLE 9904024-08A: Analytical Comments for METHOD 03 TPH-DX S, SAMPLE LCSD-311: RPD is greater than 20%. Reproducability confirmed by duplicates.

Koppers018957

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P1
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-01A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	ND	17.6		mg/Kg-dry	1	4/6/99
TPH (Heavy Oil)	ND	58.8		mg/Kg-dry	1	4/6/99
Surr: O-Terphenyl	90.0	50-150		%REC	1	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0294		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0294		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0294		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0882		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.88		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	92.2	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	15	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P2
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-02A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE		**EPA 335 SERIES**				Analyst: sld
Cyanide	57	12		mg/Kg-dry	500	4/6/99
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	5570	1830	AE	mg/Kg-dry	10	4/6/99
TPH (Heavy Oil)	13100	6100	AF	mg/Kg-dry	10	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	10	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.305		mg/Kg-dry	10	4/6/99
Ethylbenzene	15.1	0.305		mg/Kg-dry	10	4/6/99
Toluene	0.385	0.305		mg/Kg-dry	10	4/6/99
Xylenes, Total	27	0.915		mg/Kg-dry	10	4/6/99
Gasoline	216	61		mg/Kg-dry	10	4/6/99
Surr: Trifluorotoluene	110.4	50-150		%REC	10	4/6/99
PAH BY SIM, SOIL		**SW 8270B**				Analyst: ams
Acenephthene	7560	610		µg/Kg-dry	10	4/6/99
Acenaphthylene	5240	610		µg/Kg-dry	10	4/6/99
Anthracene	15900	610		µg/Kg-dry	10	4/6/99
Benz(a)anthracene	102000	6100		µg/Kg-dry	10	4/6/99
Benzo(a)pyrene	159000	6100		µg/Kg-dry	10	4/6/99
Benzo(b)fluoranthene	146000	6100		µg/Kg-dry	10	4/6/99
Benzo(g,h,i)perylene	134000	6100		µg/Kg-dry	10	4/6/99
Benzo(k)fluoranthene	46300	610		µg/Kg-dry	10	4/6/99
Chrysene	113000	6100		µg/Kg-dry	10	4/6/99
Dibenz(a,h)anthracene	17100	610		µg/Kg-dry	10	4/6/99
Fluoranthene	134000	6100		µg/Kg-dry	10	4/6/99
Fluorene	5240	610		µg/Kg-dry	10	4/6/99
Indeno(1,2,3-cd)pyrene	87800	6100		µg/Kg-dry	10	4/6/99
Naphthalene	39000	610		µg/Kg-dry	10	4/6/99
Phenanthrene	74400	6100		µg/Kg-dry	10	4/6/99
Pyrene	220000	6100		µg/Kg-dry	10	4/6/99
Surr: 2-Fluorobiphenyl	00.0	30-115	X	%REC	10	4/6/99
Surr: 4-Terphenyl-d14	00.0	18-137	X	%REC	10	4/6/99
Surr: Nitrobenzene-d5	00.0	23-120	X	%REC	10	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	18	0.		wt%	1	4/6/99

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P3
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-03A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	3970	341	AE	mg/Kg-dry	20	4/6/99
TPH (Heavy Oil)	3820	1140	AF	mg/Kg-dry	20	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	20	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	0.135	0.0284		mg/Kg-dry	1	4/6/99
Ethylbenzene	4.37	0.0284		mg/Kg-dry	1	4/6/99
Toluene	0.341	0.0284		mg/Kg-dry	1	4/6/99
Xylenes, Total	9.43	0.0852		mg/Kg-dry	1	4/6/99
Gasoline	100	5.68		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	87.6	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	12	0.		wt%	1	4/6/99

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Koppers018960

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P4
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-04A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	3680	341	AE	mg/Kg-dry	20	4/6/99
TPH (Heavy Oil)	3520	1140	AF	mg/Kg-dry	20	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	20	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	0.205	0.0284		mg/Kg-dry	1	4/6/99
Ethylbenzene	2.36	0.0284		mg/Kg-dry	1	4/6/99
Toluene	0.681	0.0284		mg/Kg-dry	1	4/6/99
Xylenes, Total	7.22	0.0852		mg/Kg-dry	1	4/6/99
Gasoline	79	5.68	AI	mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	88.5	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	12	0.		wt%	1	4/6/99

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P5
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-05A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	ND	16.9		mg/Kg-dry	1	4/6/99
TPH (Heavy Oil)	ND	56.2		mg/Kg-dry	1	4/6/99
Surr: O-Terphenyl	103.0	50-150		%REC	1	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0281		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0281		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0281		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0843		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.62		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	54.5	70-130	W	%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	11	0.		wt%	1	4/6/99

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P6
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-06A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE		**EPA 335 SERIES**				Analyst: sld
Cyanide	1.6	0.57		mg/Kg-dry	25	4/6/99
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	150	17.2	AE	mg/Kg-dry	1	4/6/99
TPH (Heavy Oil)	447	57.5	AF	mg/Kg-dry	1	4/6/99
Surr: O-Terphenyl	97.0	50-150		%REC	1	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0287		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0287		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0287		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0862		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.75		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	86.4	70-130		%REC	1	4/6/99
PAH BY SIM, SOIL		**SW 8270B**				Analyst: ams
Acenaphthene	ND	575		µg/Kg-dry	10	4/6/99
Acenaphthylene	ND	575		µg/Kg-dry	10	4/6/99
Anthracene	1150	575		µg/Kg-dry	10	4/6/99
Benz(a)anthracene	6670	575		µg/Kg-dry	10	4/6/99
Benzo(a)pyrene	9310	575		µg/Kg-dry	10	4/6/99
Benzo(b)fluoranthene	8970	575		µg/Kg-dry	10	4/6/99
Benzo(g,h,i)perylene	8740	575		µg/Kg-dry	10	4/6/99
Benzo(k)fluoranthene	3100	575		µg/Kg-dry	10	4/6/99
Chrysene	7360	575		µg/Kg-dry	10	4/6/99
Dibenz(a,h)anthracene	1380	575		µg/Kg-dry	10	4/6/99
Fluoranthene	8850	575		µg/Kg-dry	10	4/6/99
Fluorene	ND	575		µg/Kg-dry	10	4/6/99
Indeno(1,2,3-cd)pyrene	5630	575		µg/Kg-dry	10	4/6/99
Naphthalene	ND	575		µg/Kg-dry	10	4/6/99
Phenanthrene	4830	575		µg/Kg-dry	10	4/6/99
Pyrene	13800	575		µg/Kg-dry	10	4/6/99
Surr: 2-Fluorobiphenyl	100.0	30-115		%REC	10	4/6/99
Surr: 4-Terphenyl-d14	110.0	18-137		%REC	10	4/6/99
Surr: Nitrobenzene-d5	00.0	23-120	X	%REC	10	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	13	0.		wt%	1	4/6/99

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P7
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-07A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	473	169	AE	mg/Kg-dry	10	4/6/99
TPH (Heavy Oil)	931	562	AF	mg/Kg-dry	10	4/6/99
Surr: O-Terphenyl	80.0	50-150		%REC	10	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	0.0427	0.0281		mg/Kg-dry	1	4/6/99
Ethylbenzene	0.423	0.0281		mg/Kg-dry	1	4/6/99
Toluene	0.0715	0.0281		mg/Kg-dry	1	4/6/99
Xylenes, Total	1.15	0.0843		mg/Kg-dry	1	4/6/99
Gasoline	25.3	5.62		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	92.4	50-150		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	11	0.		wt%	1	4/6/99

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P8
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-08A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	14900	3450	AE	mg/Kg-dry	20	4/6/99
TPH (Heavy Oil)	31600	11500	AF	mg/Kg-dry	20	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	20	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	0.076	0.0287		mg/Kg-dry	1	4/6/99
Ethylbenzene	0.176	0.0287		mg/Kg-dry	1	4/6/99
Toluene	0.107	0.0287		mg/Kg-dry	1	4/6/99
Xylenes, Total	0.215	0.0862		mg/Kg-dry	1	4/6/99
Gasoline	21.5	5.75	AI	mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	98.0	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	13	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P9
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-09A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE		**EPA 335 SERIES**				Analyst: sld
Cyanide	2.4	0.57		mg/Kg-dry	25	4/6/99
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	434	170	AE	mg/Kg-dry	10	4/6/99
TPH (Heavy Oil)	1060	568	AF	mg/Kg-dry	10	4/6/99
Surr: O-Terphenyl	70.0	50-150		%REC	10	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0284		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0284		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0284		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0852		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.68		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	96.4	70-130		%REC	1	4/6/99
PAH BY SIM, SOIL		**SW 8270B**				Analyst: ams
Acenaphthene	625	568		µg/Kg-dry	10	4/6/99
Acenaphthylene	1360	568		µg/Kg-dry	10	4/6/99
Anthracene	2270	568		µg/Kg-dry	10	4/6/99
Benz(a)anthracene	12500	568		µg/Kg-dry	10	4/6/99
Benzo(a)pyrene	17000	568		µg/Kg-dry	10	4/6/99
Benzo(b)fluoranthene	19300	568		µg/Kg-dry	10	4/6/99
Benzo(g,h,i)perylene	17000	568		µg/Kg-dry	10	4/6/99
Benzo(k)fluoranthene	5910	568		µg/Kg-dry	10	4/6/99
Chrysene	13600	568		µg/Kg-dry	10	4/6/99
Dibenz(a,h)anthracene	2730	568		µg/Kg-dry	10	4/6/99
Fluoranthene	18200	568		µg/Kg-dry	10	4/6/99
Fluorene	682	568		µg/Kg-dry	10	4/6/99
Indeno(1,2,3-cd)pyrene	11400	568		µg/Kg-dry	10	4/6/99
Naphthalene	1020	568		µg/Kg-dry	10	4/6/99
Phenanthrene	10700	568		µg/Kg-dry	10	4/6/99
Pyrene	26100	568		µg/Kg-dry	10	4/6/99
Surr: 2-Fluorobiphenyl	100.0	30-115		%REC	10	4/6/99
Surr: 4-Terphenyl-d14	100.0	18-137		%REC	10	4/6/99
Surr: Nitrobenzene-d5	00.0	23-120	X	%REC	10	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	12	0.		wt%	1	4/6/99

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P10
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-10A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	3300	341	AE	mg/Kg-dry	20	4/6/99
TPH (Heavy Oil)	4520	1140	AF	mg/Kg-dry	20	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	20	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0284		mg/Kg-dry	1	4/6/99
Ethylbenzene	ND	0.0284		mg/Kg-dry	1	4/6/99
Toluene	ND	0.0284		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0852		mg/Kg-dry	1	4/6/99
Gasoline	ND	5.68		mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	94.8	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	12	0.		wt%	1	4/6/99

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT: Hahn & Associates
Client Sample ID: 2708-990405-P11
Lab Order: 9904024
Tag Number:
Project: 2708-99/Kappers soil characterization
Collection Date: 4/5/99
Lab ID: 9904024-11A
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	6910	1670	AE	mg/Kg-dry	10	4/6/99
TPH (Heavy Oil)	9700	5560	AF	mg/Kg-dry	10	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	10	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	ND	0.0278		mg/Kg-dry	1	4/6/99
Ethylbenzene	0.0387	0.0278		mg/Kg-dry	1	4/6/99
Toluene	0.0291	0.0278		mg/Kg-dry	1	4/6/99
Xylenes, Total	ND	0.0833		mg/Kg-dry	1	4/6/99
Gasoline	18.4	5.56	AI	mg/Kg-dry	1	4/6/99
Surr: Trifluorotoluene	95.3	70-130		%REC	1	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	10	0.		wt%	1	4/6/99

Qualifiers:
- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P12
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-12A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE		**EPA 335 SERIES**				Analyst: sld
Cyanide	7.4	0.62		mg/Kg-dry	25	4/6/99
NWTPH-DX SOIL		**NW TPH-DX**				Analyst: tmh
TPH (Diesel)	5560	1850	AE	mg/Kg-dry	10	4/6/99
TPH (Heavy Oil)	7780	6170	AF	mg/Kg-dry	10	4/6/99
Surr: O-Terphenyl	00.0	50-150	S, X	%REC	10	4/6/99
BTEX\GAS, SOIL		**EPA 8020M / NW T**				Analyst: kfl
Benzene	9.65	0.154		mg/Kg-dry	5	4/6/99
Ethylbenzene	1.03	0.154		mg/Kg-dry	5	4/6/99
Toluene	8.53	0.154		mg/Kg-dry	5	4/6/99
Xylenes, Total	3.5	0.463		mg/Kg-dry	5	4/6/99
Gasoline	107	30.9	AI	mg/Kg-dry	5	4/6/99
Surr: Trifluorotoluene	82.3	70-130		%REC	5	4/6/99
PAH BY SIM, SOIL		**SW 8270B**				Analyst: ams
Acenaphthene	2720	617		µg/Kg-dry	10	4/6/99
Acenaphthylene	10900	617		µg/Kg-dry	10	4/6/99
Anthracene	14800	617		µg/Kg-dry	10	4/6/99
Benz(a)anthracene	87700	6170		µg/Kg-dry	10	4/6/99
Benzo(a)pyrene	136000	6170		µg/Kg-dry	10	4/6/99
Benzo(b)fluoranthene	136000	6170		µg/Kg-dry	10	4/6/99
Benzo(g,h,i)perylene	114000	6170		µg/Kg-dry	10	4/6/99
Benzo(k)fluoranthene	39500	617		µg/Kg-dry	10	4/6/99
Chrysene	84000	6170		µg/Kg-dry	10	4/6/99
Dibenz(a,h)anthracene	14800	617		µg/Kg-dry	10	4/6/99
Fluoranthene	173000	6170		µg/Kg-dry	10	4/6/99
Fluorene	7410	617		µg/Kg-dry	10	4/6/99
Indeno(1,2,3-cd)pyrene	81500	6170		µg/Kg-dry	10	4/6/99
Naphthalene	6420	617		µg/Kg-dry	10	4/6/99
Phenanthrene	86400	6170		µg/Kg-dry	10	4/6/99
Pyrene	210000	6170		µg/Kg-dry	10	4/6/99
Surr: 2-Fluorobiphenyl	100.0	30-115		%REC	10	4/6/99
Surr: 4-Terphenyl-d14	100.0	18-137		%REC	10	4/6/99
Surr: Nitrobenzene-d5	00.0	23-120	X	%REC	10	4/6/99
PERCENT MOISTURE		**ASTM**				Analyst: tmh
% Moisture	19	0.		wt%	1	4/6/99

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Environmental Services Laboratory

Date: *09-Apr-99*

CLIENT:	Hahn & Associates	**Client Sample ID:**	2708-990405-P12
Lab Order:	9904024	**Tag Number:**	
Project:	2708-99/Kappers soil characterization	**Collection Date:**	4/5/99
Lab ID:	9904024-12B	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BTEX\GAS, AQUEOUS		**EPA 8020M**				Analyst: kfl
Benzene	119	5		µg/L	10	4/8/99
Surr: Trifluorotoluene	107.3	70-130		%REC	10	4/8/99

Qualifiers:

ND - Not Detected at the Reporting Limit
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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

APPENDIX C

Solid/Hazardous Waste Characterization Worksheet

SOLID/HAZARDOUS WASTE CHARACTERIZATION WORKSHEET

Facility: Koppers Industries
7540 NW St. Helens Road
Portland, Oregon

HAI Project #: 2708-99
EPA ID #: _____
Completed by: Robert B. Ede

The waste is classified as **HAZARDOUS** / **NON-HAZARDOUS** (circle one) based on the following:

1) Describe the waste generation process: Soils to be excavated to provide for foundation of 2,000,000 million gallon coal tar tank to undergo construction during 1999. Contamination sourced by historical uses documented to have occurred at this portion of the property.

2) Is this waste a **solid waste**? (40 CFR 261.2 and exclusions 40 CFR 261.4) YES

3) Is this waste a **listed hazardous waste**? NO
   F-Listed (40 CFR 261.31): Wastes from non-specific sources NO
   K-Listed (40 CFR 261.32): Wastes from specific sources NO
   P-Listed (40 CFR 261.33): Discarded commercial chemical product NO
   U-Listed (40 CFR 261.33): Discarded commercial chemical product NO

4) Has the waste been excluded under 40 CFR 261.4? NO

5) Is the waste a **characteristic hazardous waste**? NO
   Ignitable (40 CFR 261.21) NO (Generator Knowledge – analyses on similar soils)
   Corrosive (40 CFR 261.22) NO (Generator Knowledge- analyses on similar soils)
   Reactive (40 CFR 261.23) NO (Generator Knowledge-analyses on similar soils)
   Toxic (40 CFR 261.24) NO (Analytical Data; Soil Borings P-1 through P-12)

6) Is the waste a **state-only hazardous waste**?
   Residue containing 3% or greater of any P-listed waste NO
   Residue containing 10% or greater of any U-Listed waste NO

7) Is the hazardous waste excluded as a recyclable material (e.g. used oil that is re-refined, scrap metals, used batteries returned to proper facilities) (40 CFR 261.6(a)). NO

EPA or State Waste Codes: Non-Hazardous Solid Waste (Petroleum-Contaminated)

(DOT) Waste Description: Material Not Regulated by DOT

Signature: RBE

Date: 4/8/99

40 CFR 261.4 HAZARDOUS WASTE EXEMPTIONS

261.4(a) FOLLOWING MATERIALS ARE NOT A SOLID WASTE

1) Domestic Sewage and waste that passes through a sewer system to a publicly-owned treatment works.
2) Industrial Wastewater point source discharges subject to Clean Water Act (NPDES)
3) Irrigation Return Flows.
4) Special Nuclear Material, source or by-product as defined by the Atomic Energy Act of 1954.
5) In-Situ Mining Materials, not removed from the ground during extraction process.
6) Pulping Liquors, reclaimed in recovery furnace and then reused, unless speculatively accumulated (261.1(c)).
7) Spent Sulfuric Acid used to produce virgin sulfuric acid, unless speculatively accumulated.
8) Secondary materials that are reclaimed for reuse in the production process(es), provided:
   i) only tank storage with closed system piping;
   ii) reclamation does no include combustion (such as boilers, industrial furnace or incinerator);
   iii) materials must be reclaimed within 12 months; and
   iv) reclaimed material is not used to produce a fuel or into products that constitutes disposal.
9) Spent Wood Preserving Solutions or Wastewaters that are reclaimed and reused for their original purpose.
10) Specified EPA K-Wastes and Coke By-Products that are only hazardous for toxicity characteristics, if the materials are recycled to coke ovens, tar recovery process, or mixed with coal tar prior to the tar's sale or refining, provided there is no land disposal of the material between recycling and re-use.

261.4(b) SOLID WASTES THAT ARE NOT HAZARDOUS WASTES

1) Household Wastes (residences, hotels/motels, bunkhouse, ranger stations, crew quarters, camp grounds, picnic grounds and day-use recreation areas).
2) Growing/Harvesting Crops and Raising Animal (incl. manure) Materials, used as soil fertilizers.
3) Mining Overburden returned to mine site.
4) Fly and bottom Ash, Slag, and Flue-Gas Emission Control Wastes, generated primarily by coal or fossil fuel combustion, provided that hazardous wastes are not received for combustion.
5) Drilling Fluids, Waters and Other Wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.
6) TC Chromium Wastes, if the waste and chromium used in the process is exclusively (or nearly) trivalent, and it is used in a non-oxidizing environment (specific examples - mostly related to tanning process are in regs.).
7) Ore and Mineral Wastes from extraction, benefication and processing, except for facilities that receive hazardous waste (see regs. for details).
8) Cement Kiln Dust Waste, except for facilities that receive hazardous waste.
9) Discarded Arsenical-Treated Wood or Wood Products (TC D004-D017 only), if the materials are utilized for an intended end use.
10) Petroleum-Contaminated Media and Debris (TC D018-D043 only), that are regulated by 40 CFR 280.
11) Injected Ground Water (TC D018-D043 only) at petroleum extraction, reclimation, storage facility site remediations. (see regs. for details)
12) Used Chlorofloro Carbons (CFC) from totally enclosed heat transfer (refrigeration) equipment (mobile or fixed), if reclaimed for further use.
15) Used Oil Filters, (non-terne plated) if gravity hot-drained. (see regs. for details)

261.4(c) IN-PROCESS HAZARDOUS WASTES; e.g. generated in a raw or product process, until it leaves said process or the process has been shut down for 90-days (at which time the 90-day containerized storage clock starts) (see regs. for details)

261.4(d) ENVIRONMENTAL SAMPLES (see regs. for details)

261.4(e) TREATABILITY STUDY SAMPLES (see regs. for details)

261.4(f) SAMPLES UNDERGOING TREATABILITY STUDIES AT LABORATORIES AND TESTING FACILITIES (see regs. for details)

TC = a waste that is hazardous for toxicity characteristic only

SP-501-HWD (S1F) REV. 5 (6-95)

P.O. BOX 942879
SACRAMENTO, CA 94279-0057

STATE OF CALIFORNIA
BOARD OF EQUALIZATION

916-322-9479 (916) 323-9555

HAZARDOUS WASTE DISPOSAL FEE RETURN

BOARD USE ONLY		
REG	RR	PR
TR	AUD	NR
REF	QD	PI
FILE		
EFF		

DUE ON OR BEFORE 1/31/96 FOR JULY - DECEMBER, 1995

Account Number: HA HQ 36-046811 | 2

Mail To: HWCA **RVHW03** 7295
STATE BOARD OF EQUALIZATION
ENVIRONMENTAL FEES DIVISION
PO BOX 942879
SACRAMENTO CA 94279-6005

KOPPERS INDUSTRIES INC.
ATTEN: AMOS S. KAMERER
7540 N W ST HELENS RD
PORTLAND OR 97210

7540 N W ST HELENS RD, PORTLAND
ORD027734359

READ INSTRUCTIONS BEFORE PREPARING
Make changes if name or address is incorrect.

CATEGORIES (Definitions enclosed)	A TOTAL TONNAGE DISPOSED OF BY CATEGORY	B TAXABLE TONNAGE (Round up to whole ton)	C FEE RATE	D AMOUNT OF FEE (Column B x C)
1. Recycled (excludes used oil removed from a motor vehicle) 1.	N/A		0.00	$
2a. Non-RCRA regulated hazardous waste (generally **includes asbestos)** 2a.			27.59	
2b. Non-RCRA regulated hazardous waste **generated in a cleanup action (excludes asbestos)** 2b.			12.00	
3. Mining waste 3.			14.34	
4. Extremely hazardous waste 4.			220.68	
5. Restricted waste 5.			220.68	
6. Hazardous waste 6.			44.58	
7. Transported out of state 7.			0.00	
8. Residues from incineration or dechlorination of hazardous waste 8.			5.52	
9. Total fee *(add lines 1 through 8 in Column D)* 9.				
10. Penalty *[multiply line 9 by 10% (.10) if payment is made after due date indicated above]* PENALTY 10.				
11. INTEREST OF 12% PER ANNUM (0.010000 PER MONTH) IS DUE IF PAYMENT IS MADE AFTER THE DUE DATE. INTEREST 11.				
12. TOTAL AMOUNT DUE AND PAYABLE *(add lines 9,10, and 11)* 12.				$ 0.00

I hereby certify that this return, including any accompanying schedules and statements, has been examined by me and to the best of my knowledge and belief is a true, correct and complete return.

PRINT/TYPE NAME AND TITLE: A.S. KAMERER, PLANT MANAGER
SIGNATURE:
PHONE NUMBER: (503) 286-3681
DATE: 1/9/96

MAKE CHECK OR MONEY ORDER PAYABLE TO STATE BOARD OF EQUALIZATION.
Always write your account number on your check or money order. Make a copy of this document for your records.

INSTRUCTIONS - HAZARDOUS WASTE DISPOSAL FEE RETURN

GENERAL

The California State Board of Equalization administers the taxes and fees imposed under the California Hazardous Substances Tax Law. These taxes and fees apply to the generation and the land disposal of hazardous waste. They are as follows:

1. The *disposal fee* applies to hazardous waste disposed to land in this state. The fee is reported on a quarterly or semi-annual basis.
2. The *generator fee* and the *waste reporting surcharge fee* are imposed on each site where five tons or more of hazardous waste were generated. These fees are reported on a calendar year basis on a separate return which will be mailed to you.

FILING REQUIREMENTS

Every person who disposes of hazardous waste on-site or submits hazardous waste for disposal off-site must file a hazardous waste disposal fee return with the Board. Returns must be filed on or before the last day of the month following the reporting period for which the fee is due. The return must be filed even though no wastes were disposed of during the time period it covers. The return must be accompanied by a remittance payable to the Board of Equalization for the amount of the fee due. Late payments are subject to a penalty of 10% (.10) and interest at an adjusted annual rate established pursuant to Section 6591.5 of the Revenue and Taxation Code.

PREPARATION OF RETURN

Column A - Enter the total tons of hazardous waste by category disposed of on-site or submitted for off-site disposal. If you disposed of more than 5,000 tons per site in any month of Non-RCRA or Mining Waste reported on line 2a, 2b, or 3, please provide supporting information reconciling Columns A and B with your return. Please refer to Section 25174.6 of the Health and Safety Code.

Column B - Enter taxable tons. The disposal fee is imposed on each ton or fraction thereof. Any fraction of a ton reported in Column A should be rounded up to the next whole ton. For example, if in Column A you reported 21.1 tons, you would report taxable tonnage of 22.0 tons in Column B.

UNIFORM HAZARDOUS WASTE MANIFEST

Information required on your return may be obtained from your copy of the Uniform Hazardous Waste Manifest and from the confirmation copy received from the disposal site. The copy will usually indicate the method of disposal in Box "K" of the manifest. The numbers in the box are explained on the reverse side of the last copy of the manifest and are helpful in determining the reporting category. The hazardous waste composition is broken down in Box "J." This information is helpful in determining if the waste is Hazardous, Extremely Hazardous or Restricted. Total quanity and weight are indicated in Boxes 13 and 14.

To convert units to tons a conversion table is listed below:

G = Gallon	0.00417 (Water)
T = Ton	1.0 (2000 lbs)
Y = Yard	1.35 (Soil)
P = Pound	0.0005

Please note that the conversion table is to be used as a general guideline and the characteristic of your waste may vary the conversion factor.

KOPPERS
7540 N.W. St. Helens Rd.
Portland, Oregon 97210
(503) 286-3681

1/9/96

Per Betty Sweeney of USPCI (Solvent Services Co., INC.)

OUR HAZARDOUS WASTE is disposed of IN the State of LOUISIANA AND is only TRANSLOADED IN the State OF CALIF. @ SAN JOSE, thus the CALIF. disposal fee's ARE NOT Applicable.

AMOS S. KAMERER

ENVIRONMENTAL FEES NEWSLETTER

STATE BOARD
OF EQUALIZATION

Semiannual Issue
December 1995

BOARD MEMBERS

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First District
Hayward

Dean F. Andal
Second District
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San Diego

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Sacramento

Executive Director
Burton W. Oliver

Published by the
Environmental Fees Division
California State Board
of Equalization
450 N Street MIC 57
P.O. Box 942879
Sacramento, CA 94279-0057

FEATURED ARTICLES

1. *Senate Bill 1222 Revises Disposal Fee Reporting and Rates*
2. *Assembly Bill 1906 Consolidates Fee Return Filing, Establishes Prepayments*
3. *New Legislation Takes Effect*
4. *Interest Rates to Stay at Current Levels*
5. *Ensure You Receive Credit For Your Payment*
6. *Please Let Us Know If You Change Your Address*

1. SENATE BILL 1222 REVISES DISPOSAL FEE REPORTING AND RATES

Senate Bill 1222 (Chapter 638) significantly revises disposal fee reporting requirements and fee rates, for reporting periods beginning January 1, 1996. This article describes some of the major changes resulting from passage of the legislation.

Certain Facilities to Collect Disposal Fees

Under Senate Bill 1222 (SB 1222), the Department of Toxic Substances Control (DTSC) will authorize certain disposal facilities to compute and collect the disposal fee from persons submitting hazardous waste for disposal, based on the category and tonnage of waste submitted. The facility will transmit the fees collected to the Board of Equalization (Board). In addition, the authorized facility will be required to provide a complete receipt to the person submitting the waste. If you submit all of your waste to an authorized facility for disposal, you will not be required to pay disposal fees directly to the Board. *(We have not yet learned which disposal sites will be authorized to collect and remit fees under this new law* — Editor.)

If you seek exemption from disposal fees under section 25174.7 of the Health and Safety Code, or other exemptions in Chapter 6.5 of that code, you must provide written proof of qualification for the exemption to the authorized facility. If the DTSC or the Board later finds that you have misrepresented or mischaracterized eligibility for an exemption, the Board will bill you for the appropriate disposal fees.

500-pound Exemption Eliminated

Currently, persons submitting 500 or fewer pounds of waste per month for disposal are exempt from the disposal fee. SB 1222 eliminates this exemption. Effective January 1, 1996, all hazardous waste submitted for disposal will be subject to the disposal fee, with weight rounded up to the nearest ton for fee computation.

Rates Reduced for Non-RCRA Hazardous Waste

SB 1222 reduces from $12 to $7.50 per ton the disposal fee rate for certain non-RCRA hazardous waste (excluding asbestos). To qualify for the reduced rate, the waste must be generated in a remedial, removal, or corrective action taken in accordance with chapters 6.5, 6.7, 6.75, or 6.8 of the Health and Safety Code, or generated in another similar cleanup, removal, or remediation of a hazardous substance. The rate for all other non-RCRA hazardous waste will drop from 25 percent to 16.31 percent of the base rate for non-RCRA waste, or $17.94 per ton.

Rate Reduced for Waste Treated by "Designated Treatment Technology"

SB 1222 also adds a new article 7.7 to chapter 6.5 of division 20 of the Health

and Safety Code, entitled "Hazardous Waste Treatment Reform Act." Under this article, the DTSC may determine that certain technologies used to treat hazardous waste substantially reduce or eliminate the risk to human health or the environment posed by that waste. Such technologies will be identified by the DTSC as "designated treatment technologies." Waste treated by such a DTSC-designated technology will qualify for a reduced disposal fee rate equal to fifty percent of the usual fee. For example, if the rate for the waste category is set at $17.94 per ton, but the waste has been treated with a DTSC-designated technology prior to disposal, the applicable disposal fee would be $8.97 per ton.

Generator Fee Requirement Dropped for Importers of Non-RCRA Waste

Provisions of the generator fee are also modified by SB 1222. Beginning January 1, 1996, if your facility receives non-RCRA waste imported for purposes of treatment, recycling or disposal, you will no longer be required to report and pay the generator fee. Facilities receiving non-RCRA waste from outside the state prior to January 1, 1996, remain liable for generator fee reporting and payment.

2. Assembly Bill 1906 (Chapter 637) Consolidates Fee Return Filing and Establishes Prepayments

Starting in 1996, you will be able to file returns for the facility fee, generator fee, waste reporting surcharge, and environmental fee at the same time and pay with only one check. Consequently, a common due date — February 29, 1996 — has been established for 1995 annual returns required under these programs. The legislation setting up the consolidated filing and payment, AB 1906, also establishes prepayment requirements for the facility fee, generator fee, and waste reporting surcharge.

Facility Fee Return and Prepayments

As noted, the due date for filing your 1995 Facility Fee Return is February 29, 1996. In addition, you will be required to file two prepayments for the 1996 reporting period, each comprising fifty percent of the annual fee. The first 1996 prepayment, filed in addition to your 1995 return, is also due on February 29, 1996. The second facility fee prepayment is due on or before August 31, 1996. (Most of you will satisfy your 1996 facility fee liability with this second prepayment.) Your 1996 Facility Fee Return will be due on or before the last day of February 1997. On that return, you will calculate the final balance (if any) due for 1996, after adjusting for prepayments made. Facility fee prepayments will continue to be due at the end of February and August of each year, with the annual return due on or before the last day of February of the following year.

Generator Fee and Waste Reporting Surcharge Returns and Prepayment

Your 1995 Generator Fee and Waste Reporting Surcharge annual returns will be due on or before February 29, 1996. In addition, you are required to make a prepayment of the 1996 Generator Fee and Waste Reporting Fee Surcharge on or before August 31, 1996. The prepayment is based on:

- Your actual generator activity from January 1 to June 30, 1996;* or
- Fifty percent of the generator fee liability you paid to the Board for 1995.

*Under the first reporting method, you may adjust your generator fee prepayment to allow for amounts paid to a local hazardous waste management program operating under a memorandum of understanding with the DTSC.

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Consolidated Statement Summary

The Board will send you a consolidated statement summary sheet with the returns. On it, you will list the returns you are filing, your account number(s), and the total amount being paid for each fee return. (Instructions will be provided.)

For more information, please contact:

Environmental Fees Division
State Board of Equalization
450 N Street, MIC 57
P.O. Box 942879
Sacramento, CA 94279-0057

916-323-9555 phone
916-327-0859 fax

3. New Legislation Takes Effect

Bills passed in the 1995 legislative session added and amended various sections of the Hazardous Substances Tax Law. The following is a brief synopsis of changes to go into effect on January 1, 1996. (All code section references are for the Health and Safety Code unless otherwise noted.)

Assembly Bill 483 (Chapter 625) — New category similar to Conditional Exemption. Established a new category similar to Conditional Exemption (CE) for aerosol cans (using certified equipment), separation of used oil from water (under certain conditions), and operation of totally enclosed treatment facilities (after regulations are developed). Generators conducting these activities will pay only a one-time $100 fee and will not be subject to the annual CE charge.

Assembly Bill 1060 (Chapter 627) — "Remediation Waste Staging" for contaminated soil. Adds a new definition to section 25123.3 —"remediation waste staging" — defined as the temporary accumulation of non-RCRA contaminated soil generated and held onsite for specified treatment. Exempts qualifying waste from storage facility fees.

Assembly Bill 1245 (Chapter 628) — Transfer facilities. Increases from six to ten days the length of time that certain facilities can store hazardous waste without a hazardous waste facility permit. (Section 25123.3)

Assembly Bill 1822 (Chapter 401) — Kraft pulping mills. Adds section 25143.4. Allows a kraft pulping mill processing wood for wood pulp to burn certain organic materials as fuel without obtaining a hazardous waste facility permit or other grant of authorization from the DTSC, provided specified conditions are met.

Assembly Bill 1964 (Chapter 630) — Basis for annual fee rate changes. Requires annual adjustments to various hazardous waste fees to be based on the Consumer Price Index (CPI) for California, rather than the CPI for the United States.

Assembly Bill 1965 (Chapter 670) — Treated wood waste removed from utility service. Adds section 25143.1.5, exempting from hazardous waste regulations and fees any wood waste previously treated with a preservative and removed from utility service, provided certain requirements are met.

Assembly Bill 1966 (Chapter 631) — Waste generators treating substances containing copper or copper compounds. Allows hazardous waste generators treating spent cleaners and conditioners that are hazardous solely due to the presence of copper or copper compounds to operate under grants of conditional authorization until January 1, 1998.

Senate Bill 130 (Chapter 632) — Waste recombined to produce fuel and other refined petroleum products. Allows certain materials to be exempt from hazardous waste control laws if they are recombined with normal process streams to produce fuel and other refined petroleum products. Modifies the exemption for oily waste.

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Senate Bill 289 (Chapter 423) — Transportable treatment units. Requires the DTSC to permit offsite or onsite transportable treatment units to operate under permits-by-rule, standardized permits, or hazardous waste facility permits, whichever is appropriate.

Senate Bill 352 (Chapter 424) — Facilities collecting aerosol cans for recycling. Adds section 25201.1, exempting certain solid waste facilities (as defined in section 40194 of the Public Resources Code) and certain recycling facilities from the requirement to obtain a hazardous waste facility permit or other authorization from the DTSC.

Senate Bill 1135 (Chapter 636) — Conformity with federal laws, amended definitions. Changes state hazardous waste control laws to more closely resemble federal statutes. Adds the definition of "container" and amends the definition of "storage facility."

Senate Bill 1191 (Chapter 639) — Uniform Hazardous Waste and Hazardous Materials Regulatory Program. Modifies the Unified Hazardous Waste and Hazardous Materials Regulatory Program (Unified Program) by eliminating duplication and improving consolidation of programs.

Senate Bill 1291 (Chapter 640) — Tiered permits and low-risk food processing activities. Makes numerous changes to tiered permitting requirements. Adds resin treatment processes and eliminates multiple fees for generators operating under multiple tiers. Exempts low-risk neutralization of certain food or food by-product wastes from any hazardous waste facility permit requirement.

For copies of legislative bills . . .
. . please write:

Department of General Services,
Legislative Bill Room
State Capitol, Room B-32
Sacramento, CA 95814

4. Interest Rates to Stay at Current Levels

From January 1 through June 30, 1996, the interest rate charged by the Board on underpayments or amounts past due will remain at 12 percent per year. The interest rate paid on refunds of overpayments will remain at 6 percent per year.

5. Ensure You Receive Credit for Your Payment

Each month the Board of Equalization receives checks that cannot be properly credited because we cannot identify the tax- or feepayer, account number, or reporting period. To ensure you receive proper credit for your payment, please:

- Send your checks with the correct returns or billing statements; and
- Write the tax- or feepayer name and account number on the check.

A timely credit to your account will prevent a second billing and potential overpayments.

6. Please Let Us Know If You Change Your Address

To keep you up to date with the most recent information on tax and fee programs, and to ensure you receive your tax returns on time, we must have current information for your account on file. If you change your business or mailing address, please send written notice to:

Environmental Fees Division
State Board of Equalization
450 N Street, MIC 57
P.O. Box 942879
Sacramento, CA 94279-0057
916-327-0859 fax

Please include your account number on all correspondence.

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SP-501-HWD (S1F) REV. 5 (6-95)

P.O. BOX 942879
SACRAMENTO, CA 94279-0057

STATE OF CALIFORNIA
BOARD OF EQUALIZATION
(916) 323-9555

HAZARDOUS WASTE DISPOSAL FEE RETURN

BOARD USE ONLY		
REG	RR	PR
TR	AUD	NR
REF	QD	PI
FILE		
EFF		

DUE ON OR BEFORE 7/31/95 FOR JANUARY - JUNE, 1995

Account Number: HA HQ 36-046811 7195 4

Mail To: HWCA **RVHW03**
STATE BOARD OF EQUALIZATION
ENVIRONMENTAL FEES DIVISION
PO BOX 942879
SACRAMENTO CA 94279-6005

KOPPERS INDUSTRIES INC.
ATTEN: AMOS S. KAMERER
7540 N W ST HELENS RD
PORTLAND OR 97210

READ INSTRUCTIONS BEFORE PREPARING
Make changes if name or address is incorrect.

7540 N W ST HELENS RD, PORTLAND
ORD027734359

CATEGORIES (Definitions enclosed)		A TOTAL TONNAGE DISPOSED OF BY CATEGORY	B TAXABLE TONNAGE (Round up to whole ton)	C FEE RATE	D AMOUNT OF FEE (Column B x C)
1. Recycled (excludes used oil removed from a motor vehicle)	1.	0		0.00	$
2a. Non-RCRA regulated hazardous waste (generally **includes asbestos**)	2a.	0		26.82	0
2b. Non-RCRA regulated hazardous waste **generated in a cleanup action (excludes asbestos)**	2b.	0		12.00	0
3. Mining waste	3.	0		13.95	0
4. Extremely hazardous waste	4.	0		214.54	0
5. Restricted waste	5.	0		214.54	0
6. Hazardous waste	6.	0		43.34	0
7. Transported out of state	7.	0		0.00	
8. Residues from incineration or dechlorination of hazardous waste	8.	0		5.36	0
9. Total fee *(add lines 1 through 8 in Column D)*	9.				0
10. Penalty *[multiply line 9 by 10% (.10) if payment is made after due date indicated above]*				PENALTY 10.	N/A
11. INTEREST OF 12% PER ANNUM (0.010000 PER MONTH) IS DUE IF PAYMENT IS MADE AFTER THE DUE DATE.				INTEREST 11.	N/A
12. TOTAL AMOUNT DUE AND PAYABLE *(add lines 9,10, and 11)*	12.				$ 0

I hereby certify that this return, including any accompanying schedules and statements, has been examined by me and to the best of my knowledge and belief is a true, correct and complete return.

PRINT/TYPE NAME AND TITLE	SIGNATURE	PHONE NUMBER	DATE
Amos S. Kamerer, Plant Manager		(503) 286-3681	7/11/95

MAKE CHECK OR MONEY ORDER PAYABLE TO STATE BOARD OF EQUALIZATION.
Always write your account number on your check or money order. Make a copy of this document for your records.

ENVIRONMENTAL FEES NEWSLETTER

STATE BOARD
OF EQUALIZATION

Semiannual Issue
June 1995

BOARD MEMBERS

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First District
Hayward

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Sacramento, CA 94279-0057

FEATURED ARTICLES

1. *New Interest Rates on Underpayments and Overpayments*
2. *Oil-Contaminated Bilge Water May Be Subject To the Generator Fee*
3. *Be Sure to Receive Credit for Your Payments*
4. *Help Us Keep You Informed*
5. *Your Comments Are Welcome*
6. *California Taxpayers' Bill of Rights*
7. *Public Hearings Scheduled — Your Chance to Speak Up!*
8. *1995 Fee Rate Tables*

1. NEW INTEREST RATES ON UNDERPAYMENTS AND OVERPAYMENTS

Every six months, the Board of Equalization reviews the interest rate due on underpayments of tax or fees. From July 1, 1995, through December 31, 1995, the interest rate charged on underpayments or amounts past due will be 12 percent per year. The interest rate paid on refunds of overpayments will increase to 6 percent per year for the same period.

2. OIL-CONTAMINATED BILGE WATER MAY BE SUBJECT TO THE GENERATOR FEE

As a result of the passage of Assembly Bill 3582 last year, bilge water removed from a motorized vessel may no longer be exempt from the generator fee. From 1989 through 1994, such bilge water, when contaminated with oil, was exempt from the fee under the exemption for used oil.

However, under AB 3582, effective January 1, 1995, oil-contaminated bilge water that requires a National Pollutant Discharge Elimination System Permit (NPDES) from a regional water quality control board is no longer considered to be "used oil." Consequently, it is now subject to the hazardous waste generator fee if shipped off-site for treatment.

Bilge water treated in an on-site treatment unit authorized to operate under Permit-By-Rule (PBR), under Conditional Authorization (CA), or under Conditional Exemption (CE), remains exempt from the generator fee, under Section 25205.5(e)(2) of the Health and Safety Code. Nonetheless, the *effluent or residue* from the treatment process is subject to the fee unless another exemption applies.

For information on NPDES permit requirements, please contact the regional water quality control board in your area.

3. BE SURE TO RECEIVE CREDIT FOR YOUR PAYMENTS

Each month the Board of Equalization receives checks that cannot be credited to the proper account because the payer, account number, or reporting period cannot be identified. To ensure that you receive credit for your payment, please be sure to:

- Send your checks with the correct returns or billing statements
- Write your business name and account number, as shown on your return or billing statement, on your check

A timely credit to your account will prevent a second billing and potential overpayments.

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4. Help Us Keep You Informed

To supply you with the most recent information and returns in a timely manner, we must have current information for your account. If you change your business or mailing address, please contact our office as soon as possible so that we can update our files. Any questions or inquiries about your account should be addressed to:

Environmental Fees Division
State Board of Equalization
450 N Street, MIC 57
PO Box 942879
Sacramento, CA 94279-0057

916-323-9555 voice
916-327-0859 FAX

5. Your Comments Are Welcome

The *Environmental Fees Newsletter* is designed to keep you informed of changes in the procedures for applying environmental fees or taxes to your business. We try to include articles we feel will be most useful to the greatest number of our readers. Now, we would like to hear from you!

We'd appreciate it if you would take a few minutes to tell us about topics you would like to see discussed in future issues of the *Newsletter*. Your questions and concerns are probably shared by many other feepayers.

We would also like to know how you feel about our past efforts. Have recent issues been helpful to you? Would you like to see some items repeated, expanded, or clarified?

Please send your suggestions or comments to the Board's Environmental Fees Division, at the address shown above.

6. The California Taxpayers' Bill of Rights

During 1992, Senate Bill 1661 (Chapter 438) was enacted to provide a Taxpayers' Bill of Rights for several Board programs. As an Environmental Fees program feepayer, you have certain rights under that legislation.

You have the right

- To tax information written in plain language
- To prompt and accurate responses
- To rely on our written information and answers
- To be free from harassment and inappropriate conduct
- To confidentiality
- To appeal any audit findings
- To an administrative hearing
- To collect reasonable fees and expenses, under specified conditions
- To be notified of our actions
- To redress

If you have further questions, or would like to talk to the Board's Taxpayers' Rights Advocate, you may contact:

Ms. Jennifer Willis, Taxpayers' Rights Advocate
State Board of Equalization
450 N Street, MIC 70
P.O. Box 942879
Sacramento, CA 94279-0070

916-324-2798 voice
916-323-3319 FAX

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7. PUBLIC HEARINGS SCHEDULED — *YOUR CHANCE TO SPEAK UP!*

If you have ever wanted to voice your opinion on how the Board of Equalization does business, here is your chance. The Board Members have scheduled public hearings throughout their districts to give you the opportunity to present your views. If you would like to present recommendations regarding legislative changes, the quality of taxpayer service, or any other topic related to the Board, please join the Members at one of the upcoming hearings:

Eureka (District 1)
Humboldt County Courthouse
Board of Supervisors' Chamber
825 5th Street
Thursday, September 14, 1995
7:00 PM to 8:30 PM

Los Angeles County (District 4)
State Office Building
6150 Van Nuys Blvd.
Auditorium, 1st Floor
Van Nuys
Friday, October 13, 1995
1:30 PM to 3:30 PM

Orange County (District 3)
28 Civic Center Plaza, Room 142
Santa Ana
Wednesday, November 1, 1995
9:00 AM to 11:00 AM

Long Beach (District 3)
El Dorado Branch Library
2900 Studebaker Road
Wednesday, November 1, 1995
1:30 PM to 3:30 PM

Inland Empire (District 3)
Riverside City Hall
Mayor's Ceremony Room, 7th Floor
3900 Main Street
Thursday, November 2, 1995
9:00 AM to 11:00 AM

San Diego (District 3)
State Office Building
1350 Front Street, Room 5026
Thursday, November 2, 1995
1:30 PM to 3:30 PM

Bay Area (District 1)
November 1995
(For specific date and time, please contact the Taxpayers' Rights Advocate's office. See below.)

In addition to these regional hearings, the Board of Equalization will hold one statewide hearing in Sacramento:

Sacramento (statewide hearing)
Capitol Square Building
450 N Street, 1st Floor Boardroom
Wednesday, November 29, 1995
1:30 PM

Although you do not need to be scheduled in advance to speak at the hearings, it would help us to prepare if you contact us before the hearings to let us know what your topic will be. If you prefer not to give an oral presentation, you may submit a written proposal. All proposals will be reviewed and considered.

To notify us of the topic you wish to discuss or to send written material, please contact our Taxpayers' Rights Advocate:

State Board of Equalization
450 N Street, MIC 70
P.O. Box 942879
Sacramento, CA 94279-0070

916-324-2798 voice
916-323-3319 FAX

Please feel free to contact us with any questions you may have.

We look forward to hearing your ideas!

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8. 1995 Fee Rate Tables

The Health and Safety Code provides that the generator fee, generator fee surcharge, facility fee, disposal fee, and activity fee rates be adjusted annually to reflect changes in the cost of living as measured by the Consumer Price Index. The following tables show these adjustments. Table I, Table II, and Table III show the change in generator fee, generator fee surcharge, and facility fees for calendar year 1995. Table IV and Table V show the change in activity fees and disposal fees for the 1995/1996 fiscal year, beginning July 1, 1995. Tables I – IV are in whole dollars.

TABLE I — GENERATOR FEE

WASTE TONNAGE GENERATED	1994 FEE RATE	1995 FEE RATE
0-4.99 tons	$ 0	$ 0
5-24.99 tons	160	164
25-49.99 tons	1,278	1,312
50-249.99 tons	3,194	3,279
250-499.99 tons	15,970	16,395
500-999.99 tons	31,940	32,790
1000-1999.99 tons	47,910	49,185
2000 or more tons	63,880	65,580

TABLE II — GENERATOR FEE SURCHARGE

WASTE TONNAGE GENERATED	1994 FEE RATE	1995 FEE RATE
0-4.99 tons	$ 0	$ 0
5-24.99 tons	6	6
25-49.99 tons	55	56
50-249.99 tons	138	142
250-499.99 tons	689	707
500-999.99 tons	1,377	1,414
1000-1999.99 tons	2,065	2,120
2000 or more tons	2,754	2,828

TABLE III — FACILITY FEES

SIZE AND TYPE OF FACILITY	1994 FEE RATE	1995 FEE RATE
Disposal	$ 241,610	$248,060
Large Treatment	72,483	74,418
Small Treatment	48,322	49,612
Mini Treatment	12,081	12,403
Large Storage	48,322	49,612
Small Storage	24,161	24,806
Mini Storage	6,040	6,202
Standardized Permit "A"	15,373	15,373
Standardized Permit "B"	7,205	7,205
Standardized Permit "C"	6,051	6,051
Standardized Permit "C" *	3,025	3,025
Small Postclosure < 5 years	7,500	7,500
Medium Postclosure < 5 years	15,000	15,000
Large Postclosure < 5 years	22,500	22,500
Small Postclosure > 5 years	4,000	4,000
Medium Postclosure > 5 years	8,000	8,000
Large Postclosure > 5 years	13,500	13,500

* Small Quantity

TABLE IV — ACTIVITY FEES

FACILITY PERMITS, VARIANCES, MODIFICATIONS, AND FEE ON POTENTIALLY RESPONSIBLE PARTIES

	1994/95 FEE RATE	1995/96 FEE RATE
Land Disposal Facility Permit Application Fee		
Large Facility	$ 365,506	375,959
Medium Facility	212,811	218,897
Small Facility	99,793	102,647
Incineration Facility Requiring a Permit		
Large Facility	218,822	225,080
Medium Facility	127,447	131,092
Small Facility	60,115	61,834
Storage or Treatment Facility Permit Application Fee		
Large Facility	72,140	74,203
Medium Facility	37,271	38,337
Small Facility	20,440	21,025
Standardized Permit Facility Permit Application Fee		
Series A Permit	30,700 *	31,578
Series B Permit	19,167 *	19,715
Series C Permit	5,108 *	5,254
Transportable Treatment Unit Permit Application Fee		
Large Unit	72,140	74,203
Medium Unit	36,069	37,101
Small Unit	15,631	16,078
Variance Application Fees		
Storage Requirements	3,606	3,709
Section 25179.8	361	371
Alternate Classification	361	371
Hazardous Waste Transporter	962	990
Other Variances	9,617	9,892
Class 1 Permit Modification		
Per Unit Direct Impact	602	619
Maximum Per Application	1,805	1,857
Class 2 and 3 Permit Modification	% varies	% varies
Facility Postclosure Permit		
Large Facility	36,069	37,101
Medium Facility	21,643	22,262
Small Facility	9,617	9,892
Fee to Manage Extremely Hazardous Waste	240	247
Waste Classification Fees		
Hazardous or Nonhazardous	9,019	9,277
Additional requests (same waste stream)	1,202	1,236
Land Designation Fees		
Preliminary Endangerment Assessment	9,019	9,277
Risk Assessment	9,019	9,277
Oversight of Preliminary Endangerment Assessment	8,173	8,407

* Represents reduction in base rate established by Senate Bill 1815.

TABLE V — DISPOSAL FEES

RATE PER TON

CATEGORIES	1994/95 FEE RATE	1995/96 FEE RATE
Recycled	$ 0	$ 0
Non-RCRA	26.82	27.59
Non-RCRA (generated in cleanup action)*	12.00	12.00
Mining Waste	13.95	14.34
Extremely Hazardous Waste	214.54	220.68
Restricted Waste	214.54	220.68
Hazardous Waste (RCRA)	43.34	44.58
Transported out of state	0	0
Residue from incineration or dechlorination of hazardous waste	5.36	5.52

* Non-RCRA hazardous waste, excluding asbestos, generated in a remedial, removal, or corrective action, is subject to a rate of $12.00 per ton.

Koppers018986

INSTRUCTIONS - HAZARDOUS WASTE DISPOSAL FEE RETURN

GENERAL

The California State Board of Equalization administers the taxes and fees imposed under the California Hazardous Substances Tax Law. These taxes and fees apply to the generation and the land disposal of hazardous waste. They are as follows:

1. The *disposal fee* applies to hazardous waste disposed to land in this state. The fee is reported on a quarterly or semi-annual basis.
2. The *generator fee* and the *waste reporting surcharge fee* are imposed on each site where five tons or more of hazardous waste were generated. These fees are reported on a calendar year basis on a separate return which will be mailed to you.

FILING REQUIREMENTS

Every person who disposes of hazardous waste on-site or submits hazardous waste for disposal off-site must file a hazardous waste disposal fee return with the Board. Returns must be filed on or before the last day of the month following the reporting period for which the fee is due. The return must be filed even though no wastes were disposed of during the time period it covers. The return must be accompanied by a remittance payable to the Board of Equalization for the amount of the fee due. Late payments are subject to a penalty of 10% (.10) and interest at an adjusted annual rate established pursuant to Section 6591.5 of the Revenue and Taxation Code.

PREPARATION OF RETURN

Column A - Enter the total tons of hazardous waste by category disposed of on-site or submitted for off-site disposal. If you disposed of more than 5,000 tons per site in any month of Non-RCRA or Mining Waste reported on line 2a, 2b, or 3, please provide supporting information reconciling Columns A and B with your return. Please refer to Section 25174.6 of the Health and Safety Code.

Column B - Enter taxable tons. The disposal fee is imposed on each ton or fraction thereof. Any fraction of a ton reported in Column A should be rounded up to the next whole ton. For example, if in Column A you reported 21.1 tons, you would report taxable tonnage of 22.0 tons in Column B.

UNIFORM HAZARDOUS WASTE MANIFEST

Information required on your return may be obtained from your copy of the Uniform Hazardous Waste Manifest and from the confirmation copy received from the disposal site. The copy will usually indicate the method of disposal in Box "K" of the manifest. The numbers in the box are explained on the reverse side of the last copy of the manifest and are helpful in determining the reporting category. The hazardous waste composition is broken down in Box "J." This information is helpful in determining if the waste is Hazardous, Extremely Hazardous or Restricted. Total quanity and weight are indicated in Boxes 13 and 14.

To convert units to tons a conversion table is listed below:

G = Gallon	0.00417 (Water)
T = Ton	1.0 (2000 lbs)
Y = Yard	1.35 (Soil)
P = Pound	0.0005

Please note that the conversion table is to be used as a general guideline and the characteristic of your waste may vary the conversion factor.

HAZARDOUS WASTE DISPOSAL FEE CATEGORY DEFINITIONS

1. *Recycle* - To extract or reuse a material found in hazardous waste. Recycled hazardous waste is that which is reprocessed and not disposed of into or onto the land in this state. ("In this state" means within the extension limits of the State of California and includes all territory within those limits owned or ceded to the United States of America.) Do not include oil that is removed from a motor vehicle where the oil is subsequently recycled.

2a. *Non-RCRA regulated hazardous waste* - Total tons of waste disposed of or submitted for disposal in this state that are regulated as hazardous by the State of California, but not regulated by the Federal Government under the Resources Conservation and Recovery Act (RCRA). Examples of Non-RCRA regulated hazardous waste may include asbestos, tannery waste, drilling muds and shredder waste. You are responsible, however, to determine if the characteristics of your waste would render it RCRA waste and reportable in category 6.

2b. *Non-RCRA regulated hazardous waste generated in a cleanup action* - Total waste generated in a remedial action, a removal action, or a corrective action, excluding asbestos.

3. *Mining wastes* - Total tons of hazardous waste disposed of or submitted for disposal in this state, which result from the extraction beneficiation, and processing of ores and minerals, including phosphate rock and the overburden from the mining of uranium ore, and which is not otherwise subject to the disposal fee as a Restricted Waste or an Extremely Hazardous Waste. Non-RCRA mining waste is exempt pursuant to Section 25143.1 of the Health and Safety Code.

4. *Extremely hazardous waste* - Total tons of extremely hazardous waste disposed of or submitted for disposal in this state.

5. *Restricted waste* - Total tons of restricted hazardous waste listed in Section 25122.7 of the Health and Safety Code disposed of or submitted for disposal in this state.

6. *Hazardous waste* - Total tons of RCRA regulated hazardous waste disposed of or submitted for disposal in this state. Please note that in most cases asbestos should be reported in category 2, as Non-RCRA regulated hazardous waste.

7. *Transported out of state* - Total tons of hazardous waste generated in California and transported out of state for disposal.

8. *Residues from incineration or dechlorination* - Total tons of solid waste residues disposed of or submitted for disposal in-state, where the residues are a result of a hazardous waste incineration or dechlorination process.

IF YOU WISH ADDITIONAL INFORMATION, PLEASE CONTACT THE STATE BOARD OF EQUALIZATION, ENVIRONMENTAL FEES DIVISION, P.O. BOX 942879, SACRAMENTO, CA 94279-0057, TELEPHONE (916) 323-9555

SF-501-HWD (S1F) REV. 4 (3-94)

P.O. BOX 942754
SACRAMENTO, CA 94291-2754

STATE OF CALIFORNIA
BOARD OF EQUALIZATION
(916) 323-9555

HAZARDOUS WASTE DISPOSAL FEE RETURN

BOARD USE ONLY		
REG	RR	PR
TR	AUD	NR
REF	QD	PI
FILE		

DUE ON OR BEFORE 1/31/95 FOR JULY - DECEMBER, 1994

Account Number 7294 HA HQ 36-046811 3

Mail To: HWCA **RVHW03**
STATE BOARD OF EQUALIZATION
ENVIRONMENTAL FEES DIVISION
PO BOX 942754
SACRAMENTO CA 94291-2754

KOPPERS INDUSTRIES INC.
ATTEN: AMOS S. KAMERER
7540 NORTH WEST ST.HELENS ROAD
PORTLAND OR 97210

READ INSTRUCTIONS BEFORE PREPARING
Make changes if name or address is incorrect.

7540 NORTH WEST ST.HELENS ROAD, PORT
ORD027734359

CATEGORIES (Definitions enclosed)		A TOTAL TONNAGE DISPOSED OF BY CATEGORY	B TAXABLE TONNAGE (Round up to whole ton)	C FEE RATE	D AMOUNT OF FEE (Column B x C)
1. Recycled (excludes used oil removed from a motor vehicle)	1.	0		0.00	$
2a. Non-RCRA regulated hazardous waste (generally **includes asbestos**)	2a.	0		26.82	0
2b. Non-RCRA regulated hazardous waste **generated in a cleanup action (excludes asbestos)**	2b.	0		12.00	0
3. Mining waste	3.	0		13.95	0
4. Extremely hazardous waste	4.	0		214.54	0
5. Restricted waste	5.	0		214.54	0
6. Hazardous waste	6.	0		43.34	0
7. Transported out of state	7.	0		0.00	
8. Residues from incineration or dechlorination of hazardous waste	8.	0		5.36	0
9. Total fee *(add lines 1 through 8 in Column D)*	9.				0
10. Penalty *[multiply line 9 by 10% (.10) if payment is made after due date indicated above]*	PENALTY 10.				N/A
11. INTEREST OF 11% PER ANNUM (0.009167 PER MONTH) IS DUE IF PAYMENT IS MADE AFTER THE DUE DATE.	INTEREST 11.				N/A
12. TOTAL AMOUNT DUE AND PAYABLE *(add lines 9,10, and 11)*	12.				$ 0

I hereby certify that this return, including any accompanying schedules and statements, has been examined by me and to the best of my knowledge and belief is a true, correct and complete return.

PRINT/TYPE NAME AND TITLE	SIGNATURE	PHONE NUMBER	DATE
Amos S. Kamerer Plant Manager		(503) 286-3681	1/16/95

MAKE CHECK OR MONEY ORDER PAYABLE TO STATE BOARD OF EQUALIZATION.
Always write your account number on your check or money order. Make a copy for your records.

Koppers018989

INSTRUCTIONS - HAZARDOUS WASTE DISPOSAL FEE RETURN

GENERAL

The California State Board of Equalization administers the taxes and fees imposed under the California Hazardous Substances Tax Law. These taxes and fees apply to the generation and the land disposal of hazardous waste. They are as follows:

1. The DISPOSAL FEE applies to hazardous waste disposed to land in this state. The fee is reported on a quarterly or semi-annual basis.
2. The GENERATOR FEE and the WASTE REPORTING SURCHARGE FEE are imposed on each site where five tons or more of hazardous waste were generated. These fees are reported on a calendar year basis on a separate return which will be mailed to you.

FILING REQUIREMENTS

Every person who disposes of hazardous waste on-site or submits hazardous waste for disposal off-site must file a hazardous waste disposal fee return with the Board. Returns must be filed on or before the last day of the month following the reporting period for which the fee is due. The return must be filed even though no wastes were disposed of during the time period it covers. The return must be accompanied by a remittance payable to the Board of Equalization for the amount of the fee due. Late payments are subject to a penalty of ten percent (.10) and interest at an adjusted annual rate established pursuant to Section 6591.5 of the Revenue and Taxation Code.

PREPARATION OF RETURN

Column A - Enter the total tons of hazardous waste by category disposed of on-site or submitted for off-site disposal. If you disposed of more than 5,000 tons per site in any month of Non-RCRA or Mining Waste reported on line 2a, 2b, or 3, please provide supporting information reconciling Columns A and B with your return. Please refer to Section 25174.6 of the Health and Safety Code.

Column B - Enter taxable tons. The disposal fee is imposed on each ton or fraction thereof. Any fraction of a ton reported in Column A should be rounded up to the next whole ton. For example, if in Column A you reported 21.1 tons, you would report taxable tonnage of 22.0 tons in Column B.

UNIFORM HAZARDOUS WASTE MANIFEST

Information required on your return may be obtained from your copy of the Uniform Hazardous Waste Manifest and from the confirmation copy received from the disposal site. The copy will usually indicate the method of disposal in Box "K" of the manifest. The numbers in the box are explained on the reverse side of the last copy of the manifest and are helpful in determining the reporting category. The hazardous waste composition is broken down in Box "J". This information is helpful in determining if the waste is Hazardous, Extremely Hazardous or Restricted. Total quantity and weight are indicated in Boxes 13 and 14.

To convert units to tons a conversion table is listed below:

G = Gallon	0.00417 (Water)
T = Ton	1.0 (2000 lbs)
Y = Yard	1.35 (Soil)
P = Pound	0.0005

Please note that the conversion table is to be used as a general guideline and the characteristic of your waste may vary the conversion factor.

SP-501-HWD (S3) REV. 4 (3-94)

HAZARDOUS WASTE DISPOSAL FEE CATEGORY DEFINITIONS

1. RECYCLE - To extract or reuse a material found in hazardous waste. Recycled hazardous waste is that which is reprocessed and not disposed of into or onto the land in this state. ("In this state" means within the extension limits of the State of California and includes all territory within those limits owned or ceded to the United States of America.) Do not include oil that is removed from a motor vehicle where the oil is subsequently recycled.

2a. NON-RCRA REGULATED HAZARDOUS WASTE -Total tons of waste disposed of or submitted for disposal in this state that are regulated as hazardous by the State of California but not regulated by the Federal Government under the Resources Conservation and Recovery Act (RCRA). Examples of Non-RCRA regulated hazardous waste may include asbestos, tannery waste, drilling muds and shredder waste. You are responsible, however, to determine if the characteristics of your waste would render it RCRA waste and reportable in category 7.

2b. NON-RCRA REGULATED HAZARDOUS WASTE GENERATED IN A CLEANUP ACTION - Total waste generated in a remedial action, a removal action, or a corrective action, excluding asbestos.

3. MINING WASTES - Total tons of hazardous waste disposed of or submitted for disposal in this state, which result from the extraction beneficiation, and processing of ores and minerals, including phosphate rock and the overburden from the mining of uranium ore, and which is not otherwise subject to the disposal fee as a Restricted Waste or an Extremely Hazardous Waste. Non-RCRA mining waste is exempt pursuant to section 25143.1 of the Health and Safety Code.

4. EXTREMELY HAZARDOUS WASTE - Total tons of extremely hazardous waste disposed of or submitted for disposal in this state.

5. RESTRICTED WASTE - Total tons of restricted hazardous waste listed in Section 25122.7 of the Health and Safety Code disposed of or submitted for disposal in this state.

6. HAZARDOUS WASTE - Total tons of RCRA regulated hazardous waste disposed of or submitted for disposal in this state. Please note that in most cases asbestos should be reported in category 2, as Non-RCRA regulated hazardous waste.

7. TRANSPORTED OUT OF STATE - Total tons of hazardous waste generated in California and transported out of state for disposal.

8. RESIDUES FROM INCINERATION OR DECHLORINATION - Total tons of solid waste residues disposed of or submitted for disposal in-state, where the residues are a result of a hazardous waste incineration or dechlorination process.

IF YOU NEED ADDITIONAL INFORMATION, PLEASE CONTACT THE STATE BOARD OF EQUALIZATION, ENVIRONMENTAL FEES DIVISION, P.O. BOX 942879, SACRAMENTO, CA 94279-0001
TELEPHONE (916) 323-9555

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JAN 11 1995

KOPPERS INDS., INC.
PORTLAND, OR

SP-501-HG (S1F) REV. 6 (6-94)

P.O. BOX 942754
SACRAMENTO, CA 94291-2754

STATE OF CALIFORNIA
BOARD OF EQUALIZATION
(916) 323-9555

HAZARDOUS WASTE GENERATOR FEE AND WASTE REPORTING SURCHARGE FEE RETURN

BOARD USE ONLY		
REG	RR	PR
TR	AUD	NR
REF	QD	PI
FILE		

DUE ON OR BEFORE 1/31/95 **FOR** JANUARY - DECEMBER, 1994

Account Number: HA HQ 36-046811 0

Mail To: HWCA **RVHG02** 9194

STATE BOARD OF EQUALIZATION
ENVIRONMENTAL FEES DIVISION
PO BOX 942754
SACRAMENTO CA 94291-2754

KOPPERS INDUSTRIES INC.
ATTEN: AMOS S. KAMERER
7540 NORTH WEST ST.HELENS ROAD
PORTLAND OR 97210

READ INSTRUCTIONS BEFORE PREPARING
Make changes if name or address is incorrect.

7540 NORTH WEST ST.HELENS ROAD, PORT
ORD027734359

EXTREMELY HAZARDOUS WASTE QUESTIONNAIRE (See instructions on reverse)		YES	NO
1a. Did you produce extremely hazardous waste in 1994?	1a.		✓
1b. Do you anticipate producing extremely hazardous waste in 1995?	1b.		✓

Please complete the remaining areas of this return once the questions above have been answered.

A CLASSIFICATION OF GENERATING SITES (Based on amounts of hazardous waste generated during the calendar year or portion thereof)		B NUMBER OF SITES (Do not list tonnage)	C AMOUNT OF FEES	D TOTAL FEES DUE (Column B x C)
2. Generators which generate less than 5 tons	2.		0.00	
3. Generators which generate an amount equal to or more than 5 tons, but less than 25 tons	3.		166.00	
4. Generators which generate an amount equal to or more than 25 tons, but less than 50 tons	4.		1333.00	
5. Generators which generate an amount equal to or more than 50 tons, but less than 250 tons	5.		3332.00	
6. Generators which generate an amount equal to or more than 250 tons, but less than 500 tons	6.		16659.00	
7. Generators which generate an amount equal to or more than 500 tons, but less than 1,000 tons	7.		33317.00	
8. Generators which generate an amount equal to or more than 1,000 tons, but less than 2,000 tons	8.		49975.00	
9. Generators which generate an amount equal to or more than 2,000 tons	9.		66634.00	
10. Total amount of fees *(add amounts in Column D, lines 2 through 9)*	10.			$
11. See instructions for credit for local fees	11.			-$
12. Total amount of fees due *(subtract line 11 from line 10; if line 12 is less than zero, enter zero)*	12.			$
13. Penalty *[multiply line 12 by 10% (.10) if payment is made after the due date shown above]*	PENALTY 13.			$
14. INTEREST OF 11% PER ANNUM (0.009167 PER MONTH) IS DUE IF PAYMENT IS MADE AFTER THE DUE DATE.	INTEREST 14.			$
15. TOTAL AMOUNT DUE AND PAYABLE *(add lines 12, 13, and 14)*	15.			$ 0

I hereby certify that this return, including any accompanying schedules and statements, has been examined by me and to the best of my knowledge and belief is a true, correct and complete return.

PRINT/TYPE NAME AND TITLE	SIGNATURE	PHONE NUMBER	DATE
AMOS S. KAMERER		(503) 286-3681	1/6/95

MAKE CHECK OR MONEY ORDER PAYABLE TO STATE BOARD OF EQUALIZATION.
Always write your account number on your check or money order. Make a copy of this document for your records.

HAZARDOUS WASTE GENERATOR FEE AND WASTE REPORTING SURCHARGE FEE RETURN INSTRUCTIONS

GENERAL INFORMATION

The Generator Fee is imposed on each site that generates (produces) hazardous waste of 5 tons or more in each calendar year. The fee is calculated for each site's generation of waste regardless of the waste's final disposition (i.e., recycling or disposal). 1990 legislation imposed a Waste Reporting Surcharge Fee for waste generated beginning with calendar year 1990. The Surcharge Fee has been included in the fees due in Column C of the return. The surcharge rate is 4.75% (.0475) of the generator fee, or 4.53% (.0453) of the combined rate.

EXEMPTIONS FROM THE FEE

1) Used motor oil removed from motor vehicles that is recycled by a recycler permitted by the Department of Toxic Substances Control.

2) Wastes that are generated, recycled and reused onsite.

3) Aqueous waste treated in a treatment unit operating, or which subsequently operates, pursuant to a permit by regulation. However, hazardous waste generated by this process is subject to the Generator Fee and Waste Reporting Surcharge Fee.

EXTREMELY HAZARDOUS WASTE

Beginning January 1, 1994, a single calendar year fee applies to any person producing extremely hazardous waste. This fee should be paid prior to producing extremely hazardous waste.

Pursuant to Section 25115 of the Health and Safety Code "Extremely Hazardous Waste" means any hazardous waste or mixture of hazardous wastes which, if human exposure should occur, may likely result in death, disabling personal injury or serious illness caused by the hazardous waste or mixture of hazardous wastes because of its quantity, concentration, or chemical characteristics.

If you are unable to determine whether your waste is extremely hazardous, please contact the Waste Classification Helpline at the Department of Toxic Substances Control at (916) 322-7676 between the hours of 8:00 a.m. to 12 noon Monday through Friday.

Lines 1a and 1b. Please check the appropriate boxes, and complete the remainder of the return.

FILING REQUIREMENTS

Every person who produces hazardous waste must file this return on or before January 31 with remittance to the Board for any amounts due. This return must be filed even though you have no liability for the fee. Failure to file may result in the imposition of civil penalties. Late payment incurs a penalty of 10% and interest at an adjusted annual rate established pursuant to Section 6591.5 of the Revenue and Taxation Code. Facility operators who pay the Facility Fee are not subject to the Generator Fee for the facility site. However, they are subject to the Surcharge Fee which is to be filed on a special Surcharge Fee return for the facility site.

FILING INSTRUCTIONS

Please select the appropriate fee category for each site where hazardous waste was generated in this state.

If you are reporting for more than one site, please use the enclosed Schedule G or provide the site address, EPA number, and appropriate fee category on an attachment.

CREDIT FOR LOCAL FEES (LINE 11)

The Generator Fee and Waste Reporting Surcharge Fee may be offset by fees paid to a local agency for the state generator fee reporting period. Not all fees qualify. In order to qualify the local fees must be used to fund a hazardous waste management program operated pursuant to a memorandum of understanding with the California Department of Toxic Substances Control. In cases where you are reporting for multiple generating sites, the fees must have been paid for the site that is receiving the offset.

Underground storage tank fees and emergency response plan fees do not qualify as credits. Also, fees paid to a fire department are generally not acceptable as credits.

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JAN 0 5 1995

KOPPERS INDS., INC.
PORTLAND, OR

Koppers018994

SP-501-HWD (S1F) REV. 4 (3-94)

P.O. BOX 942754
SACRAMENTO, CA 94291-2754

STATE OF CALIFORNIA
BOARD OF EQUALIZATION
(916) 323-9555

HAZARDOUS WASTE DISPOSAL FEE RETURN

BOARD USE ONLY		
REG	RR	PR
TR	AUD	NR
REF	QD	PI
FILE		

DUE ON OR BEFORE 7/31/94 FOR JANUARY - JUNE, 1994

Account Number HA HQ 36-046811 5

Mail To: HWCA **RVHW03** 7194

STATE BOARD OF EQUALIZATION
ENVIRONMENTAL FEES DIVISION
PO BOX 942754
SACRAMENTO CA 94291-2754

KOPPERS INDUSTRIES INC.
ATTEN: ~~JOHN OXFORD~~ Amos S. Kamerer
7540 NORTH WEST ST.HELENS ROAD
PORTLAND OR 97210

7540 NORTH WEST ST.HELENS ROAD, PORT
ORD027734359

READ INSTRUCTIONS BEFORE PREPARING
Make changes if name or address is incorrect.

CATEGORIES (Definitions enclosed)	A TOTAL TONNAGE DISPOSED OF BY CATEGORY	B TAXABLE TONNAGE (Round up to whole ton)	C FEE RATE	D AMOUNT OF FEE (Column B x C)
1. Recycled (excludes used oil removed from a motor vehicle) 1.	0		0.00	$
2a. Non-RCRA regulated hazardous waste (generally **includes asbestos**) 2a.	0		26.25	0
2b. Non-RCRA regulated hazardous waste **generated in a cleanup action (excludes asbestos)** 2b.	0		12.00	0
3. Mining waste 3.	0		13.65	0
4. Extremely hazardous waste 4.	0		210.00	0
5. Restricted waste 5.	0		210.00	0
6. Hazardous waste 6.	0		42.42	0
7. Transported out of state 7.	0		0.00	
8. Residues from incineration or dechlorination of hazardous waste 8.	0		5.25	0
9. Total fee *(add lines 1 through 8 in Column D)*			9.	0
10. Penalty *[multiply line 9 by 10% (.10) if payment is made after due date indicated above]*			**PENALTY** 10.	N/A
11. INTEREST OF 10% PER ANNUM (0.008333 PER MONTH) IS DUE IF PAYMENT IS MADE AFTER THE DUE DATE.			**INTEREST** 11.	N/A
12. TOTAL AMOUNT DUE AND PAYABLE *(add lines 9,10, and 11)*			12.	$ 0

I hereby certify that this return, including any accompanying schedules and statements, has been examined by me and to the best of my knowledge and belief is a true, correct and complete return.

PRINT/TYPE NAME AND TITLE	SIGNATURE	PHONE NUMBER	DATE
Amos S. Kamerer, Plant Mgr.		(503) 286-3681	7/12/94

MAKE CHECK OR MONEY ORDER PAYABLE TO STATE BOARD OF EQUALIZATION.
Always write your account number on your check or money order. Make a copy for your records.

Koppers018995

INSTRUCTIONS - HAZARDOUS WASTE DISPOSAL FEE RETURN

GENERAL

The California State Board of Equalization administers the taxes and fees imposed under the California Hazardous Substances Tax Law. These taxes and fees apply to the generation and the land disposal of hazardous waste. They are as follows:

1. The DISPOSAL FEE applies to hazardous waste disposed to land in this state. The fee is reported on a quarterly or semi-annual basis.
2. The GENERATOR FEE and the WASTE REPORTING SURCHARGE FEE are imposed on each site where five tons or more of hazardous waste were generated. These fees are reported on a calendar year basis on a separate return which will be mailed to you.

FILING REQUIREMENTS

Every person who disposes of hazardous waste on-site or submits hazardous waste for disposal off-site must file a hazardous waste disposal fee return with the Board. Returns must be filed on or before the last day of the month following the reporting period for which the fee is due. The return must be filed even though no wastes were disposed of during the time period it covers. The return must be accompanied by a remittance payable to the Board of Equalization for the amount of the fee due. Late payments are subject to a penalty of ten percent (.10) and interest at an adjusted annual rate established pursuant to Section 6591.5 of the Revenue and Taxation Code.

PREPARATION OF RETURN

Column A - Enter the total tons of hazardous waste by category disposed of on-site or submitted for off-site disposal. If you disposed of more than 5,000 tons per site in any month of Non-RCRA or Mining Waste reported on line 2a, 2b, or 3, please provide supporting information reconciling Columns A and B with your return. Please refer to Section 25174.6 of the Health and Safety Code.

Column B - Enter taxable tons. The disposal fee is imposed on each ton or fraction thereof. Any fraction of a ton reported in Column A should be rounded up to the next whole ton. For example, if in Column A you reported 21.1 tons, you would report taxable tonnage of 22.0 tons in Column B.

UNIFORM HAZARDOUS WASTE MANIFEST

Information required on your return may be obtained from your copy of the Uniform Hazardous Waste Manifest and from the confirmation copy received from the disposal site. The copy will usually indicate the method of disposal in Box "K" of the manifest. The numbers in the box are explained on the reverse side of the last copy of the manifest and are helpful in determining the reporting category. The hazardous waste composition is broken down in Box "J". This information is helpful in determining if the waste is Hazardous, Extremely Hazardous or Restricted. Total quantity and weight are indicated in Boxes 13 and 14.

To convert units to tons a conversion table is listed below:

G = Gallon	0.00417 (Water)
T = Ton	1.0 (2000 lbs)
Y = Yard	1.35 (Soil)
P = Pound	0.0005

Please note that the conversion table is to be used as a general guideline and the characteristic of your waste may vary the conversion factor.

ENVIRONMENTAL FEES NEWSLETTER

STATE BOARD
OF EQUALIZATION

Semiannual Issue
June 1994

BOARD MEMBERS

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First District

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Published by the
California State Board
of Equalization
Environmental Fees Division,
MIC: 57
P.O. Box 942879
Sacramento, CA 94279-0001

FEATURED ARTICLES

1. *Requesting an Informal Settlement Conference*
2. *Do You Own or Operate an Underground Storage Tank?*
3. *Relying on Incorrect Written Advice*
4. *Manifest Fee Billing Error*
5. *A Guide to the Appeals Process*
6. *New Disposal Fee Rates*
7. *1994 Fee Rate Tables*

1. REQUESTING AN INFORMAL SETTLEMENT CONFERENCE

If you contest a hazardous waste fee assessment, you may request an informal settlement conference with the Department of Toxic Substances Control (DTSC). This voluntary avenue for dispute resolution was established by Senate Bill 922, which became effective on January 1, 1994.

To request an informal conference, you must submit a written request ("letter of interest") to the Chief of the DTSC's Fees Unit. Your letter must state the reason or reasons you wish to have a conference. If your request is granted, you may have your legal counsel attend the meeting with you.

Please note that requesting a disputed fee settlement conference with the DTSC does not affect your right to pursue an appeal through the Board of Equalization (Board), or relieve you of your responsibility to meet appeal deadlines. For more information on appeals and claims for refund, see *A Guide to the Appeals Process*, beginning on the next page.

Letters requesting settlement conferences should be mailed to:

DTSC
Attention: Chief, Fees Unit
P.O. Box 806
Sacramento, CA 95812-0806

2. DO YOU OWN OR OPERATE AN UNDERGROUND STORAGE TANK?

Generally, if you own an underground storage tank used to store petroleum products, you must register with the Board of Equalization and pay a quarterly fee of $0.006 for each gallon of petroleum product stored in the tank. There are some exceptions to this requirement. For example, certain farm and residential tanks used to store heating oil on the premises where used are exempt.

If you own a storage tank, please be aware that you are liable for this fee whether or not you are the operator of the tank. Operators do not become liable for the fee merely because they lease and operate a business having an underground storage tank. For example, the owner of a gas station leases the station to a large oil company to operate. The *owner*, not the lessee, is liable to report and pay to the Board of Equalization a fee of $0.006 per gallon on all the fuel that the oil company places into the tanks of the station.

If you are the operator and not the owner of an underground storage tank, please provide a copy of this article to the owner or refer the owner to the Board for more information.

To register or obtain information about this fee, please call 916-322-9669, or write to:

State Board of Equalization
Fuel Taxes Division, MIC: 30
P.O. Box 942879
Sacramento, CA 94279-0001

3. RELYING ON INCORRECT WRITTEN ADVICE

If you relied on incorrect written advice from the Board of Equalization regarding the specific application of a tax or

Koppers018997

fee, you may be relieved of any fees or taxes, interest, and penalties that resulted from following that advice. To qualify for the relief, both of the following conditions must be met:

- You requested, in writing, advice on whether a particular activity or transaction was subject to a fee or tax, fully describing the facts and circumstances of the activity or transaction; and
- You based your actions on the Board's specific, written response.

However, if you were later informed by the Board that the response given you was in error, or if there was a change in the law that made the advice invalid, you will be liable for any fees, taxes, interest, or penalty due.

To request relief, send your letter to:

Board of Equalization
Environmental Fees Division, MIC: 57
P.O. Box 942879
Sacramento, CA 94279-0001

Your request must include a copy of your earlier request for advice, a copy of the Board's response, and a statement, signed under penalty of perjury, detailing the facts on which your claim is based.

4. Manifest Fee Billing Error

The Department of Toxic Substances Control's Generator Information Services Unit (formerly known as the Manifest Unit) recently mailed a correction letter to hazardous waste generators. The letter announces the discovery of a computer error in the manifest billings, and lists the correct billing information. The DTSC is reviewing all incoming manifest fee payments for possible overpayments.

The DTSC regrets any problems caused by this error. If you are a hazardous waste generator, and you have not received the correction letter, or if you have questions regarding your manifest fees, please call the DTSC. Inside California, call 1-800-618-6942. Outside the state, please call 1-916-324-1781.

5. A Guide to the Appeals Process

It is the Board of Equalization's goal to collect only the fees and taxes that are due. If you feel that you have paid taxes or fees in error, or that a Board assessment is incorrect, you can follow the following procedures to obtain an adjustment or refund. This article provides general information on the appeals process. For more detailed information, you may wish to obtain a copy of pamphlet 17, *Appeals Procedures*, from your local Board office.

Petition for Redetermination

You may file a petition for redetermination when you believe that an assessment (*Notice of Determination*) issued by the Board is incorrect. Your petition must:

- Be in writing
- Identify the amounts you feel are incorrect
- State the specific reasons you believe the tax or fee is not due or is incorrect

If you wish to have a conference (a "hearing") regarding your petition, you should include a written request with your petition. Your petition must be filed *within 30 days* of the date on the *Notice of Determination*. Please include your account number on the petition letter.

Claim for Refund

You may file a claim for refund if you believe that you have overpaid fees or taxes. You must file your claim within the time limits noted below. If you do not file within the stated time limits, you may not make further claims against the state for the contested amounts.

- **Claims relating to tax or fee returns.** You must file *within 3 years* of the due date of the return on which you made the overpayment.
- **Notices of Determination.** You must file *within 6 months* of the date the notice becomes final, or the date you paid the fees, whichever is *later*.

Koppers018998

Your claim for refund must be in writing, and it must state the specific reasons you think you have overpaid fees or taxes. Please include your account number on your claim.

Review of Petitions and Claims

The Board will acknowledge your petition or claim, and may request additional information. After considering your appeal and reviewing any information you submit, the Board will notify you of its decision by letter. (If your claim for refund is approved, you will be sent a *Notice of Refund* and a refund warrant instead of a letter.)

If you agree with the decision, the Board will take the action described in its letter to you. If you disagree, you may request, in writing, a conference with an attorney or auditor from the Board's Appeals Review Section.

Appeals Section Review Conference

The appeals conference is an informal meeting. You will be given an opportunity to present your position, and a representative of the Board will explain why the staff feels its position is correct. You will be informed of the date, time, and location of the conference approximately four weeks prior to the scheduled date.

After the conference, the Appeals Attorney or Auditor will prepare a report, called a *decision and recommendation*, that analyzes the case and recommends approval or denial of your appeal. If you disagree, *and have new information or evidence to present*, you may request reconsideration. The Board or the Department of Toxic Substances Control may also request reconsideration if they disagree with the recommendation.

Board Hearing

If there is no new evidence, and you wish to continue your appeal, you may request a hearing before the Members of the Board of Equalization. The Board will notify you of the time and location of the hearing at least 30 days before the scheduled date. In a Board hearing, both parties can present their cases to the Board Members.

Further Appeal Rights

Since a Board hearing is the last step in the administrative appeals process, the Board's decision is final. If you owe additional fees and wish to continue your appeal, your only recourse is to pay the fees and file a claim for refund.

If your claim for refund is denied, you have no further recourse with the Board. To pursue your appeal, you must take your case to court. The law requires that you file a court action within 90 days after the date the denial is mailed to you. Normally, a court action is filed in the superior court.

6. New Disposal Fee Rates

Statutes of 1989, Chapter 269, effective August 3, 1989, established a base rate for the computation of disposal fees, to be used until the 1994/95 fiscal year. Beginning with that year, the fees will be adjusted annually to reflect changes in the cost of living as measured by the Consumer Price Index. The disposal fee rates for the 1994/95 fiscal year will be as follows:

Categories	Fee Rate (per ton)
Recycled	$ 0.00
Non-RCRA	26.82
Non-RCRA (generated in cleanup action)*	12.00
Mining Waste	13.95
Extremely Hazardous Waste	214.54
Restricted Waste	214.54
Hazardous Waste (RCRA)	43.34
Transported out of state	0.00
Residues from incineration or dechlorination of hazardous waste	5.36

* Non-RCRA hazardous waste, *excluding asbestos*, generated in a remedial, removal, or corrective action, is subject to a rate of $12.00 per ton.

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JUL 11 1994
KOPPERS INDS., INC.
PORTLAND, OR

4. 1994 Fee Rate Tables

The Health and Safety Code provides that the generator fee, generator fee surcharge, facility fee, and activity fee rates be adjusted annually to reflect changes in the cost of living as measured by the Consumer Price Index. The following tables show these adjustments. Table I, Table II, and Table III show the change in generator fee, generator fee surcharge, and facility fees for the calendar year 1994. Table IV shows the change in activity fees for the 1994/95 fiscal year beginning July 1, 1994. All figures are in whole dollars.

TABLE I - GENERATOR FEE

WASTE TONNAGE GENERATED	1993 FEE RATE	1994 FEE RATE
0-4.99 tons	$ 0	$ 0
5-24.99 tons	156	160
25-49.99 tons	1,244	1,278
50-249.99 tons	3,110	3,194
250-499.99 tons	15,550	15,970
500-999.99 tons	31,100	31,940
1000-1999.99 tons	46,550	47,910
2000 or more tons	62,200	63,880

TABLE II - GENERATOR FEE SURCHARGE

WASTE TONNAGE GENERATED	1993 FEE RATE	1994 FEE RATE
0-4.99 tons	$ 0	$ 0
5-24.99 tons	6	6
25-49.99 tons	54	55
50-249.99 tons	134	138
250-499.99 tons	671	689
500-999.99 tons	1,341	1,377
1000-1999.99 tons	2,011	2,065
2000 or more tons	2,682	2,754

TABLE III - FACILITY FEES

SIZE AND TYPE OF FACILITY	1993 FEE RATE	1994 FEE RATE
Disposal	$ 235,260	$ 241,610
Large Treatment	70,578	72,483
Small Treatment	47,052	48,322
Mini Treatment	11,763	12,081
Large Storage	47,052	48,322
Small Storage	23,526	24,161
Mini Storage	5,882	6,040
Standardized Permit "A"		15,373*
Standardized Permit "B"		7,205*
Standardized Permit "C"		6,051*
Standardized Permit "D"		3,025*
Small Postclosure < 5 years	7,500	7,500
Medium Postclosure < 5 years	15,000	15,000
Large Postclosure < 5 years	22,500	22,500
Small Postclosure > 5 years	4,000	4,000
Medium Postclosure > 5 years	8,000	8,000
Large Postclosure > 5 years	13,500	13,500

* New fee categories established by Senate Bill 27, effective September 21, 1993.

TABLE IV - ACTIVITY FEES

FACILITY PERMITS, VARIANCES, MODIFICATIONS, AND FEE ON POTENTIALLY RESPONSIBLE PARTIES

	1993/94 FEE RATE	1994/95 FEE RATE
Land Disposal Facility Permit Application Fee		
Large Facility	$ 357,778	$ 365,506
Medium Facility	208,311	212,811
Small Facility	97,683	99,793
Incineration Facility Requiring a Permit		
Large Facility	214,195	218,822
Medium Facility	124,752	127,447
Small Facility	58,844	60,115
Storage or Treatment Facility Permit Application Fee		
Large Facility	70,615	72,140
Medium Facility	36,483	37,271
Small Facility	20,008	20,440
Standardized Permit Facility Application Fee		
Series A Permit	35,367	36,131
Series B Permit	22,080	22,557
Series C Permit	5,884	6,011
Transportable Treatment Unit Permit Application Fee		
Large Unit	70,615	72,140
Medium Unit	35,306	36,069
Small Unit	15,301	15,631
Variance Application Fees		
Storage Requirements	3,530	3,606
Section 25179.8	353	361
Alternate Classification	353	361
Hazardous Waste Transporter	942	962
Other Variances	9,414	9,617
Class 1 Permit Modification		
Per Unit Direct Impact	589	602
Maximum Per Application	1,767	1,805
Facility Postclosure Permit		
Large Facility	35,306	36,069
Medium Facility	21,185	21,643
Small Facility	9,414	9,617
Fee to Manage Extremely Hazardous Waste	235	240
Waste Classification	8,828	9,019
Additional Waste Class of Same Waste Stream	1,177	1,202
Land Designation Fees		
Preliminary Endanger	8,828	9,019
Risk Assessment	8,828	9,019
Oversight of Preliminary Endangerment Assessment	8,000	8,173

Koppers019000

STATE OF CALIFORNIA

STATE BOARD OF EQUALIZATION
450 N STREET, SACRAMENTO, CALIFORNIA
(P.O. BOX 942879, SACRAMENTO, CALIFORNIA 94279-0001)

MEMBER
First District
BRAD SHERMAN
Second District, Los Angeles
ERNEST J. DRONENBURG, JR.
Third District, San Diego
MATTHEW K. FONG
Fourth District, Los Angeles
GRAY DAVIS
Controller, Sacramento

BURTON W. OLIVER
Executive Director

Notice to Producers and Transporters of Extremely Hazardous Waste

For periods prior to January 1, 1994, Section 25205.7 of the Health and Safety Code provides for an activity fee to be paid each time a permit or permit modification to manage Extremely Hazardous Waste is obtained.

For periods after January 1, 1994, a single calendar year fee applies to any person ***producing*** or ***transporting*** Extremely Hazardous Waste. The fee for calendar year 1994 is $235.00 and is payable to the Board of Equalization. This fee should be paid prior to producing or transporting Extremely Hazardous Waste.

If you anticipate producing or transporting Extremely Hazardous Waste during the 1994 calendar year, please complete the bottom portion of this notice and attach it to the enclosed tax return. Upon receipt of your notification, the Board will issue a billing for the fee.

Any questions should be directed to the Environmental Fees Division, P.O. Box 942879, MIC:57, Sacramento, California 94279-0001, telephone number (916) 322-9534.

I anticipate producing or transporting Extremely Hazardous Waste during the 1994 Calendar year.

Do Not

Account Number HA HQ 36-046811

Signature _____ Date 1/14/94

Title PLANT MANAGER A.S. KAMELER

Telephone Number 503-286-3681

(11-93)

Koppers019001

ET-501-HG FRONT REV. 3 (3-92)
STATE OF CALIFORNIA

P.O. BOX 942754
SACRAMENTO, CA 94291-2754

BOARD OF EQUALIZATION
SPECIAL TAXES DIVISION
(916) 323-9555

HAZARDOUS WASTE GENERATOR FEE AND WASTE REPORTING SURCHARGE FEE RETURN

BOARD USE ONLY		
REG	RR	PR
TR	AUD	NR
REF	QD	PI
FILE		
PM		

DUE ON OR BEFORE 01/31/94 FOR JANUARY - DECEMBER 1993

Mail To: HWCA **RVHG01**
STATE BOARD OF EQUALIZATION
SPECIAL TAXES DIVISION
P.O. BOX 942754
SACRAMENTO, CA 94291-2754

9193 | HA HQ 36-046811 1

KOPPERS INDUSTRIES INC.
~~ATTEN: JOHN OXFORD~~ AMOS KAMERER
7540 NORTH WEST ST.HELENS ROAD
PORTLAND OR 97210

READ INSTRUCTIONS BEFORE PREPARING

Make Changes If Name or Address is Incorrect

ORD027734359
7540 NORTH WEST ST.HELENS ROAD, PORTLAND

A CLASSIFICATION OF GENERATING SITES	B NUMBER OF SITES (Do not list tonnage)	C AMOUNT OF FEES	D TOTAL FEES DUE (Col B x C)
1. Generators which generate less than 5 tons of hazardous waste during the calendar year or portion thereof.	1	0.00	Ø
2. Generators which generate an amount equal to or more than 5 tons, but less than 25 tons, of hazardous waste during the calendar year or portion thereof.		147.00	
3. Generators which generate an amount equal to or more than 25 tons, but less than 50 tons, of hazardous waste during the calendar year or portion thereof.		1184.00	
4. Generators which generate an amount equal to or more than 50 tons, but less than 250 tons, of hazardous waste during the calendar year or portion thereof.		2959.00	
5. Generators which generate an amount equal to or more than 250 tons, but less than 500 tons, of hazardous waste during the calendar year or portion thereof.		14796.00	
6. Generators which generate an amount equal to or more than 500 tons, but less than 1,000 tons, of hazardous waste during the calendar year or portion thereof.		29591.00	
7. Generators which generate an amount equal to or more than 1,000 tons, but less than 2,000 tons, of hazardous waste during the calendar year or portion thereof.		44386.00	
8. Generators which generate an amount equal to or more than 2,000 tons of hazardous waste during the calendar year or portion thereof.		59182.00	
9. Total amount of fees. (Add amounts in Column D, Lines 1 thru 8)			$ Ø
10. See instructions for credit for local fees.			-$
11. Total amount of fees due. (Subtract Line 10 from Line 9. If Line 11 is less than zero, enter zero.)			$
12. Penalty of 10% (.10) if payment is made after due date shown above.		Penalty	$
13. INTEREST OF 10% PER ANNUM (0.008333 PER MONTH) IS DUE IF PAYMENT IS MADE AFTER THE DUE DATE.		Interest	$
14. TOTAL AMOUNT DUE AND PAYABLE. (Add lines 11, 12, 13)			$ Ø

I hereby certify that this return, including any accompanying schedules and statements, has been examined by me and to the best of my knowledge and belief is a true, correct and complete return.

A.S. KAMERER, PLANT MANAGER — PRINT/TYPE NAME AND TITLE
SIGNATURE
503-286-3681 — PHONE NUMBER
1/12/94 — DATE

(503) 286-3681 1/12/94

MAKE CHECK OR MONEY ORDER PAYABLE TO STATE BOARD OF EQUALIZATION.
Always write your account number on your check or money order. Make a copy of this document for your records.

Koppers019002

HAZARDOUS WASTE GENERATOR FEE AND WASTE REPORTING SURCHARGE FEE RETURN INSTRUCTIONS

GENERAL INFORMATION

The GENERATOR FEE is imposed on each site that generates (produces) hazardous waste of 5 tons or more in each calendar year. The fee is calculated for each site's generation of waste regardless of the wastes final disposition (i.e. recycling or disposal). 1990 legislation imposed a Waste Reporting Surcharge Fee for waste generated during the calendar year 1990. The SURCHARGE FEE has been included in the fees due in column C of the return. The surcharge rate is 4.75% (.0475) of the generator fee, or 4.53% (.0453) of the combined rate.

FILING REQUIREMENTS

Every person who produces hazardous waste must file this return on or before January 31 with remittance to the board for any amounts due. This return must be filed even though you have no liability for the fee. Failure to file may result in the imposition of civil penalties. Late payment incurs a penalty of 10% and interest at an adjusted annual rate established pursuant to Section 6591.5 of the Revenue and Taxation Code. Facility operators that pay the Facility Fee are not subject to the Generator Fee for the facility site. However, they are subject to the Surcharge Fee which is to be filed on a special Surcharge Fee return for the facility site.

FILING INSTRUCTIONS

Please select the appropriate fee category for each site where hazardous waste was generated in this state or at sites located outside this state where the waste was transported into California for treatment, recycling, or disposal.

If you are reporting for more than one site, please use the enclosed Schedule G or provide the site address, EPA number, and appropriate fee category on an attachment.

EXEMPTIONS

Used motor oil removed from motor vehicles that is recycled is not subject to the fee.

Wastes that are generated, recycled and reused onsite are not subject to the fee.

CREDIT FOR LOCAL FEES (LINE 10)

The Generator Fee and Waste Reporting Surcharge Fee may be offset by fees paid to a local agency during the state generator fee reporting period. Not all fees qualify. In order to qualify the local fees must be used to fund a hazardous waste management program operated pursuant to a memorandum of understanding with the California Department of Toxic Substances Control. In cases where you are reporting for multiple generating sites, the fees must have been paid for the site that is receiving the offset.

Fees that do not qualify; underground storage tank fees, and emergency response plan fees. Generally, fees paid to a fire department are not acceptable as an offsetting credit.

SUMMARY OF GENERATING SITES (SCHEDULE G)

A Schedule G is enclosed for taxpayers who are currently reporting more than one generating site under a single Board of Equalization Tax Account Number. To complete Schedule G, check the appropriate box for the category which reflects the total tonnage of hazardous waste generated at each site. Add any generating sites which are not included on the schedule by EPA number and site address. Total the number of sites by category and bring this forward to Column B of the Hazardous Waste Generator Fee Return. Multiply the number of sites per category times the fee for that category. Total the fees due in Column D.

If you did not receive a Schedule G and have more than one generating site to report, please make a supplemental attachment listing the generating site address, EPA number, and generating category.

UNIFORM HAZARDOUS WASTE MANIFEST

Information required on your return may be obtained from your copy of the Uniform Hazardous Waste Manifest. Total quantity and weight are indicated in boxes 13 and 14 of the manifest. To convert units to tons, a conversion table is listed below. To translate these values to tons, use the factor next to each and multiply this value times the total quantity.

CONVERSION TABLE

G = gallons	0.00417
T = tons	1.0(2000 lbs)
Y = yards	1.35 (soil)

Please note the conversion table provides a general guideline. The characteristics of your waste may vary the conversion factor.

Koppers019003

ET-501-HWD FRONT REV. 3 (1-93)

P.O. BOX 942754
SACRAMENTO, CA 94291-2754

STATE OF CALIFORNIA
BOARD OF EQUALIZATION
(916) 323-9555

RECEIVED
JUL 12 1993

HAZARDOUS WASTE DISPOSAL FEE RETURN

BOARD USE ONLY		
REG	RR	PR
TR	AUD	NR
REF	QD	PI
FILE		
PM		

DUE ON OR BEFORE 07/31/93 FOR JANUARY - JUNE 1993

Account Number 7193 HA HQ 36-046811 6

KOPPERS INDS. INC.
Mail To: HWCA RVHW02
PORTLAND OR
STATE BOARD OF EQUALIZATION
ENVIRONMENTAL FEES DIVISION
PO BOX 942754
SACRAMENTO CA 94291-2754

KOPPERS INDUSTRIES INC.
ATTEN: JOHN OXFORD
7540 NORTH WEST ST.HELENS ROAD
PORTLAND OR 97210

READ INSTRUCTIONS BEFORE PREPARING
Make changes if name or address is incorrect.

ORD027734359
7540 NORTH WEST ST.HELENS ROAD, PORTLAND

CATEGORIES (Definitions enclosed)		A TOTAL TONNAGE DISPOSED OF BY CATEGORY	B TAXABLE TONNAGE (Round up to whole ton.)	C FEE RATE	D AMOUNT OF FEE (col. B x C)
1. Recycled (excludes used oil removed from a motor vehicle)	1.			0.00	$
2. Non-RCRA regulated hazardous waste (generally includes asbestos)	2.			26.25	
3. Mining waste	3.			13.65	
4. Extremely hazardous waste	4.			210.00	
5. Restricted waste	5.			210.00	
6. Hazardous waste	6.			42.42	
7. Transported out of state	7.			0.00	
8. Residues from incineration or dechlorination of hazardous waste	8.			5.25	
9. Total fee *(add lines 1 through 8 in Column D)*				9.	
10. Penalty *[multiply line 9 by 10% (.10) if payment is made after due date indicated above]*				PENALTY 10.	
11. INTEREST OF 10% PER ANNUM (0.008333 PER MONTH) IS DUE IF PAYMENT IS MADE AFTER THE DUE DATE.				INTEREST 11.	
12. TOTAL AMOUNT DUE AND PAYABLE *(add lines 9,10, and 11)*				12.	$

I hereby certify that this return, including any accompanying schedules and statements, has been examined by me and to the best of my knowledge and belief is a true, correct and complete return.

PRINT/TYPE NAME AND TITLE | SIGNATURE | PHONE NUMBER ( ) | DATE

MAKE CHECK OR MONEY ORDER PAYABLE TO STATE BOARD OF EQUALIZATION.
Always write your account number on your check or money order. Make a copy for your records.

Koppers019004

INSTRUCTIONS - HAZARDOUS WASTE DISPOSAL FEE RETURN

GENERAL

The California State Board of Equalization administers the taxes and fees imposed under the California Hazardous Substances Tax Law. These taxes and fees apply to the generation and the land disposal of hazardous waste. They are as follows:

1. The DISPOSAL FEE applies to hazardous waste disposed to land in this state. The fee is reported on a quarterly or semi-annual basis.
2. The GENERATOR FEE and the WASTE REPORTING SURCHARGE FEE are imposed on each site where five tons or more of hazardous waste were generated. These fees are reported on a calendar year basis on a separate return which will be mailed to you.

FILING REQUIREMENTS

Every person who disposes of hazardous waste on-site or submits hazardous waste for disposal off-site must file a hazardous waste disposal fee return with the Board. Returns must be filed on or before the last day of the month following the reporting period for which the fee is due. The return must be filed even though no wastes were disposed of during the time period it covers. The return must be accompanied by a remittance payable to the Board of Equalization for the amount of the fee due. Late payments are subject to a penalty of ten percent (.10) and interest at an adjusted annual rate established pursuant to Section 6591.5 of the Revenue and Taxation Code.

PREPARATION OF RETURN

Column A - Enter the total tons of hazardous waste by category disposed of on-site or submitted for off-site disposal. If you disposed of more than 5,000 tons per site in any month of Non-RCRA or Mining Waste reported on line 2 or 3, please provide supporting information reconciling Columns A and B with your return. Please refer to Section 25174.6 of the Health and Safety Code.

Column B - Enter taxable tons. The disposal fee is imposed on each ton or fraction thereof. Any fraction of a ton reported in Column A should be rounded up to the next whole ton. For example, if in Column A you reported 21.1 tons, you would report taxable tonnage of 22.0 tons in Column B.

UNIFORM HAZARDOUS WASTE MANIFEST

Information required on your return may be obtained from your copy of the Uniform Hazardous Waste Manifest and from the confirmation copy received from the disposal site. The copy will usually indicate the method of disposal in Box "K" of the manifest. The numbers in the box are explained on the reverse side of the last copy of the manifest and are helpful in determining the reporting category. The hazardous waste composition is broken down in Box "J". This information is helpful in determining if the waste is Hazardous, Extremely Hazardous or Restricted. Total quantity and weight are indicated in Boxes 13 and 14.

To convert units to tons a conversion table is listed below:

G = Gallon	0.00417 (Water)
T = Ton	1.0 (2000 lbs)
Y = Yard	1.35 (Soil)
P = Pound	0.0005

Please note that the conversion table is to be used as a general guideline and the characteristic of your waste may vary the conversion factor.

STATE OF CALIFORNIA

STATE BOARD OF EQUALIZATION

1020 N STREET, SACRAMENTO, CALIFORNIA
P.O. BOX 942879, SACRAMENTO, CALIFORNIA 94279-0001

Telephone (916) 327-3416

WILLIAM M. BENNETT
First District, Kentfield
BRAD SHERMAN
Second District, Los Angeles
ERNEST J. DRONENBURG, JR
Third District, San Diego
MATTHEW K. FONG
Fourth District, Los Angeles
GRAY DAVIS
Controller, Sacramento

BURTON W. OLIVER
Executive Director

RECEIVED
APR 20 1993
KOPPERS INDS., INC.
PORTLAND, OR

April 15, 1993

KOPPERS INDUSTRIES INC.
7540 NORTH WEST ST.HELENS ROAD
PORTLAND, OR 97210

Account No.: HA HQ 36-046811
EPA No.: ORD027734359

Dear Ladies & Gentlemen:

The Hazardous Waste Tax Account Number for the above site address has been assigned pursuant to a recent telephone call from John Oxford your Plant Manager. He has requested the returns be mailed to him. Although the returns are being mailed to your Plant Manager, as your agent, you are responsible for filing and paying any taxes or fees due on your account. The account number above is used when completing Section B, "State Generators ID", on your California Uniform Hazardous Waste Manifest and informs the disposal facility that you will be paying the disposal fees directly to the Board. If there are any errors on the above account, please make the necessary corrections and notify us by copy of this letter.

Attached is an informational notice and applicable rates for the Hazardous Substances Tax Program.

If you have any returns/schedules due or overdue, they are enclosed with this letter. They should be completed and mailed back to this office within fifteen days. Otherwise, they will be sent to you according to the schedule on the attached insert. These forms will include further instructions which will aid you in their completion. When you are no longer generating or disposing of hazardous waste, please notify us so that your account can be closed.

Please keep this letter for your records as confirmation of registration. If you have any questions, please contact us.

Sincerely,

Julie O'Sullivan
Program Technician
Environmental Fees Section
Special Taxes Division

Enclosure

44458

HAZARDOUS WASTE TAX INFORMATION

Pursuant to Health and Safety Code, you will be required to file fee returns for the following programs:

1. The Hazardous Waste Disposal Fee Program is a fee that is based upon disposal of hazardous waste. The fee is normally reported on a quarterly or semiannual basis and is due one month after the end of the reporting period. The Disposal Fee was originally imposed on July 1, 1985, pursuant to Section 25113 of the Health and Safety Code.

2. The Hazardous Waste Generator Fee and Waste Reporting Surcharge Fee are fees imposed upon persons who generate five tons or more of hazardous waste at each generating site. The fee is due on January 31st for waste generated during the previous calendar year. The Generator Fee was originally imposed on July 1, 1986, pursuant to Section 25205.5 of the Hazardous Substances Tax Law. The Waste Surcharge Fee applies to periods after January 1, 1990, pursuant to Section 25205.9 of the Health and Safety Code.

HAZARDOUS WASTE DISPOSAL FEE (HA/HY)	1/91-12/92	1/93-6/94
1. Recycled	.00	.00
2. Non-RCRA	26.25	26.25
3. Mining Waste	13.65	13.65
4. Ext. Haz. Waste	210.00	210.00
5. Restricted Waste	210.00	210.00
6. Hazardous Waste	105.00	42.42
7. Transported Out-of-State	42.00	.00
8. Residue From Incin./Dechlo.	5.25	5.25
9. Residue From Approved Treatment	5.25	--
10. Residue From Approved Treatment Disposed Out-of-State	23.63	--
DUE DATE: last day of the month following end of reporting period.		

HAZARDOUS WASTE GENERATOR FEE AND WASTE REPORTING SURCHARGE FEE (HG)	1992
< Than 5 Tons	.00
5 - 24.9	143.00
25 - 49.9	1,146.00
50 - 249.9	2,866.00
250 - 499.9	14,330.00
500 - 999.9	28,659.00
1000 - 1999.9	42,988.00
2000 plus	57,318.00
DUE DATE: January 31 for the previous Calendar Year.	

CITY OF
PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES

Earl Blumenauer, Commissioner
John Lang, Administrator
1120 S.W. 5th, Rm. 400
Portland, Oregon 97204-1972
(503) 796-7740
FAX: (503) 796-6995

June 26, 1990

Reply by: 07/06/1990

Mr. John Oxford
Koppers Industries
7540 NW St. Hellens Rd.
Portland, Or. 97210

Dear Mr. Oxford:

Portland, like other municipalities, is required under the federal Clean Water Act to maintain a current list of all non-domestic sewer users. In order to comply with this requirement the City periodically surveys all non-domestic dischargers to the publicly owned treatment works (POTW). Information obtained through these surveys is a critical first step in the identification of industrial users of specific interest as outlined by the federal regulations.

Enclosed is a general Industrial User Survey (IUS). Please provide the information that applies to your business and return by the date indicated. Once the City has reviewed your IUS you will be contacted by an Industrial Waste Section representative who will schedule a site inspection. The IUS and the inspection report will be the basis of your firm's initial classification in the City's program.

Thank you for your cooperation with the City of Portland in the implementation of our Industrial Pretreatment Program.

If you have any questions about the City's Industrial Monitoring Program, or on the completion of the survey, please call me at: (503) 796-7568

Sincerely,

Miguel A. Santana
Environmental Services
Industrial Wastewater Technician

RECEIVED
JUL 5 1990
KOPPERS INDS., INC.
PORTLAND, OR

cc. HGE
TEB
file

Engineering
Bill Gaffi
796-7181

Business Operations
Bob Rieck
796-7133

Wastewater Treatment
Ross Peterson
285-0205

Customer/Employee Affairs
Karen Kramer
796-7062

CITY OF PORTLAND
BUREAU OF ENVIRONMENTAL SERVICES
INDUSTRIAL WASTE SECTION

INDUSTRIAL/COMMERCIAL SEWER USE SURVEY

BUSINESS NAME: KOPPERS INDUSTRIES INC

MAILING ADDRESS: 7540 NW ST HELENS RD
PORTLAND OR
97210

SITE ADDRESS: SAME

BUSINESS DESCRIPTION:

Please provide a brief description of manufacturing or service related activity on premises, to include Standard Industrial Classification (SIC) and principal raw materials and products.

SIC # 2865 PRINCIPAL PRODUCTS HANDLED COAL TAR CREOSOTE COAL TAR PITCH REFINED TAR. THIS LOCATION IS A TERMINAL OPERATION THERE IS NO WASTE WATER OR PRODUCTS GENERATED. NO MANUFACTURING OPERATION. STORM WATER RUN OFF DISCHARGE UNDER N.P.D.E.S. PERMIT.

Do you discharge any waste or wastewater, directly or indirectly, other than sanitary wastes to the City of Portland sewage collection system?

YES [ ] NO [X]

If your answer to the above question is YES describe the waste discharged and include specific chemical components.

The information contained in this survey is familiar to me and to the best of my knowledge and belief is complete and accurate.

John A. Ford PLANT MANAGER — 7-10-90

Signature and Title of Responsible Offical — Date

SPEED LETTER®

TO Traci Self
K-1800

FROM Amos
NW Terminal

SUBJECT ODEQ Annual Haz. Waste Verification (2005)

FOLD NO. 9 or 10

MESSAGE

Please Review the Attached
Do you Agree; We don't need to submit A Report ?

DATE 2/16/06 SIGNED Amos

REPLY

No report needed

FOLD FOR NO. 9

FOLD FOR NO. 10

DATE SIGNED

WilsonJones®

SENDER: DETACH AND RETAIN YELLOW COPY, SEND WHITE AND PINK COPIES. **RECIPIENT:** RETAIN WHITE COPY, RETURN PINK COPY.

44-902 • Triplicate
44-904 • Quadruplicate

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Koppers019010

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Headquarters
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6124
TTY (503) 229-6993

JAN 27 2006

January 27, 2006

LQ-HW-AR-CEG
AMOS KAMERER
KOPPERS INC
7540 NW SAINT HELENS ROAD
PORTLAND, OR 97210-3663

Re: 2005 Hazardous Waste Annual Verification

Dear Hazardous Waste Coordinator:

You are receiving this letter because our records indicate that your company has an active RCRA Site Identification Number. Oregon Administrative Rule 340-102-0012 requires facilities with identification numbers to update site information annually. Your facility last notified DEQ that your generator status was Conditionally Exempt Generator (CEG).

If your generator category has not changed from the CEG category for calendar year 2005 and your site information is the same, then you do not need to submit a report. This applies only for Conditionally Exempt Generators that are not remediation sites. CEGs that are generators due to remediation of environmental cleanup must continue to report every year until the cleanup is completed and the site identification number is withdrawn.

To be sure that nothing has changed, do the following:

- Determine your generator status for calendar year 2005. The attached Frequently Asked Questions provides information that will help you make this determination. You can also receive free technical assistance from the Toxics Use & Waste Reduction Assistance Program. An informational brochure has been included with this mailing.
- Review your last reported Site Identification (SI) Form and determine if you need to update any site contact information to DEQ.
- Verify that the site location listed at the end of this letter is still accurate. The RCRA Site ID Number is not transferable to other physical locations.

You can choose to verify the last reported information by submitting the SI Form annually to DEQ, although it is only required if the information about your facility has changed or you are a generator due to remediation.

If your generator category has changed in calendar year 2005 or you want to update the site contact information, please do one of the following by **April 1, 2006**:

- Access the on-line annual reporting system called HazWaste.Net using the information provided at the end of this letter and the attached General Instructions.

DEQ-DC1

- Use hardcopy paper forms. The attached Frequently Asked Questions tells you how to obtain the paper forms.

You may also want to consider withdrawing your RCRA Site Identification Number. State and federal requirements do not require Conditionally Exempt Generators to have this number. The Frequently Asked Questions will provide information to help you determine whether you should keep your identification number.

The following information will help you login to your facility information in the HazWaste.Net reporting software. The internet address for HazWaste.Net is www.deqhazwaste.net. The attached General Instructions will give you step-by-step instructions.

RCRA Site ID Number:	ORD027734359
Personal Identification Number (PIN)	5282
Facility Name:	Koppers Inc
Site Location:	7540 NW ST HELENS RD PORTLAND OR 97210
User Name for Data Administrator:	kamereras

The following information is included in this packet to help you with the reporting process:

- Frequently Asked Questions Related to Annual Verification for Conditionally Exempt Generators
- General instructions for using HazWaste.Net
- Find Solutions/Free Assistance Brochure

Thank you in advance for timely notification of changes to your facility information. If you have any questions regarding this letter, please call the Annual Report Hotline in Portland at (503) 229-6938 or toll-free within the State of Oregon at 1-800-452-4011, extension 6938. You can also e-mail your questions to hazwaste@deq.state.or.us. If you have questions concerning hazardous waste regulations, please call the technical assistance staff in the DEQ regional office nearest you. Telephone numbers are provided on the back page of the enclosed brochure.

Sincerely,

Nancy Dollar

Nancy Dollar, Project Coordinator
Hazardous Waste Program
Land Quality Division

Frequently Asked Conditionally Exempt Generator (CEG) Questions

State of Oregon
Department of Environmental Quality

Land Quality Division
811 SW 6th Avenue
Portland, OR 97204
Phone: (503) 229-5913
(800) 452-4011
Fax: (503) 229-6977
www.deq.state.or.us

1. *What if I want to use paper forms to report updated information?*
2. *How do I determine my generator status?*
3. *As a CEG, should I withdraw my RCRA Site ID number?*
4. *How do I withdraw my RCRA Site ID number?*
5. *What if a change of ownership occurred?*
6. *Where do I get additional help?*

1. *What if I want to use paper forms to report updated information?*

- Call the Annual Report Hot Line in Portland at (503) 229-6938 or toll-free in the State of Oregon at 1-800-452-4011, extension 6938.
- Send a request by email to hazwaste@deq.state.or.us.
- Download the Site ID Form from HazWaste.Net. If your generator status changed to a small or large quantity generator category you will also need to file the Waste Generation & Management Waste Stream (GM) Forms. Instructions for downloading and printing are provided in the attached HazWaste.Net General Instructions (see page 4).

2. *How do I determine my generator status?*

Hazardous waste generators are regulated differently, depending on how much waste they generate or accumulate in each calendar month. For purposes of annual verification and reporting, your classification is based on the greatest status reached in any one month of the calendar year. For example, if you were a small quantity generator (SQG) for only one calendar month of the year, you must report as an SQG on the annual report. The three generator categories are:

Conditionally Exempt Generator (CEG) – in every calendar month you generate:

- 2.2 pounds or less of acute hazardous wastes, or
- 220 pounds or less of hazardous wastes, or
- 220 pounds or less of spill cleanup debris containing hazardous wastes, or
- never accumulated on-site more than 2,200 pounds of hazardous wastes

Small Quantity Generator (SQG) – in any one calendar month you generate:

- more than 220 pounds but less than 2,200 pounds of hazardous wastes, or
- more than 220 pounds but less than 2,200 pounds of spill cleanup debris containing hazardous wastes, or
- accumulated on-site more than 2,200 pounds of hazardous wastes

Large Quantity Generator (LQG) – in any one calendar month you generate:

- 2,200 or more pounds of hazardous waste, or
- 2,200 or more pounds of spill cleanup debris containing hazardous waste, or
- more than 2.2 pounds of acute hazardous wastes, or

- more than 220 pounds of spill cleanup debris containing an acute hazardous waste, or
- accumulated on-site more than 2.2 pounds of acute hazardous waste

3. *As a CEG, should I withdraw my RCRA Site ID number?*

As a CEG, you have the following options:

Maintain the RCRA Site Number

- If there is any chance that your business may generate over the CEG waste limits in any one month. In some cases, a CEG may fall into the larger quantity limits requiring a site identification number during cleanout of outdated products, or while cleaning up a spill or release.
- Your hazardous waste transporter or collection facility requires a site identification number. It would be best to check because collection facilities that once required a DEQ site identification number are no longer requiring the number (e.g., Metro Recycling in Portland).
- If you fit into any of the following categories, you must maintain a RCRA Site ID number:
    - Small or Large Quantity Hazardous Waste Generator
    - Hazardous Waste Transporter
    - Treatment, Storage, or Disposal Facility
    - Hazardous Waste Recycling Facility
    - Marketer or Burner of Hazardous Waste Fuel
    - Universal Waste or Used Oil Reportable Activities

Withdraw your RCRA Site Number

- If your facility will never generate more than the CEG waste limits.
- Your hazardous waste transporter or collection facility does not require a RCRA site identification number.
- If your facility moved to a new location. If a RCRA Site ID number is needed for the new location, you must apply for a new number.
- If your facility is no longer operating.

4. *How do I withdraw my RCRA Site ID number?*

Submit a Site Identification (SI) Form to DEQ by using the on-line HazWaste.Net reporting system or by filling out the hardcopy paper form. Follow these steps on the SI Form to withdraw your number:

Section 1. – Reason for Submittal

- Check the box "To Withdraw Site Identification Number"
- Check the box "Completion of RCRA Waste Activity"
- Provide an "Effective Date" indicating the date the site identification number was no longer needed. If you do not know the exact date, provide December 31 and the calendar year you are reporting (e.g., 12/31/05 is the calendar year DEQ is verifying at this time).

Sections 3 through 9 – Site Location and Site Contact Information

You should be using a form that has your last reported site information pre-printed on the left side of form.

- Provide any new information in the space provided on the right hand side of the form.

Section 10 – Hazardous Waste Activities

- In question 1, check the box for the correct generator status category (CEG, SQG, or LQG) for the calendar year you are reporting. If you had a SQG or LQG generator status you must also file the separate Generation & Management Waste Stream (GM) Forms.
- Check any other boxes in questions 2 through 10 of Section 10 if they apply to you.

Sections 11, 12 and 13 are not applicable for annual reporting (Use for notifying DEQ of new activities)

Section 14 – Comments

Use this section to provide additional information.

Section 15 – Certification

Provide your signature and date in this section. The completed form can then be mailed to the address provided at the top of the SI Form. An acknowledgement letter for withdrawal of the ID number will be mailed to you after processing.

5. *What if a change of ownership occurred?*

A new owner or his/her representative must submit the Site ID (SI) Form by mail since a signature is required. You can generate a pre-populated SI Form in HazWaste.Net (see attached General Instructions for using HazWaste.Net) or call the Annual Report Hot Line to request a form. The pre-populated SI Form has the last reported site information with space to provide updated information. If the new owner does not need a RCRA Site ID number, then the previous owner should file the SI Form and withdraw the number.

6. *Where do I get additional help?*

For questions about the RCRA Site ID number or the annual verification reporting, please call the DEQ Annual Report Hot Line in Portland at (503) 229-6938 or toll free within Oregon at (800) 452-4011, extension 6938.

For questions regarding hazardous waste regulations, please call the small business technical assistance staff in the DEQ regional office nearest you:

Portland: 2020 SW Fourth Avenue, Ste 400, Portland 97201 – Phone: **(503) 229-5263**

Eugene: 1102 Lincoln Street, Suite 210, Eugene 97401 – Phone: **(541) 686-7838**

Medford: 221 Stewart Avenue, Ste 201, Medford, OR 97501 – Phone: **(541) 776-6010**

Salem: 750 Front Street, NE, Suite. 120, Salem 97310 – Phone: **(503) 378-8240**

Bend: 2146 NE 4th Street, Ste 104, Bend, 97701 – Phone: **(541) 388-6146**

Instructions for printing hardcopy forms from HazWaste.Net

How do I print a Site ID Form from the HazWaste.net system?

The Site ID Form printed from HazWaste.net will include the information reported in the previous year. There is space to provide updated information next to the last reported information.

- New users of HazWaste.Net would start by following the General Instructions for creating a user profile (Steps 1 through 10). Repeat users would sign into HazWaste.Net following the General Instructions Steps 8 through 10.
- On the Reporting Forms Log screen, select the "Open Pre-Printed Site ID Form" link at the top of the page.
- Select File and Print.

Where do I find the GM Form and the associated Code lists?

Go to www.deqhazwaste.net and scroll down towards the bottom of the screen. Open up the links to print these documents to report your waste stream information on hardcopy forms.

- Generation & Management Waste Stream (GM) Form
- Source Codes
- Form Codes
- Hazardous Waste Management Codes

Additional information for previous users of HazWaste.Net

What is the difference between a Data Administrator and Data Entry User?

The enclosed cover letter includes the name of the latest Data Administrator from the previous reporting year. The Data Administrator is usually the first person to set up a user profile in HazWaste.net. A Data Administrator has annual report submission rights. Unless designated as a Data Administrator, other users only have data entry roles. Data entry users cannot submit the completed report to DEQ. Once you sign in to HazWaste.net, your user name and role is displayed on the top left comer of the screen. If you need your user role changed, follow the instructions in the next question.

What do I do if the user name listed on the enclosed cover letter is not the person who will submit the 2005 report to DEQ?

- Use the General Instructions to create a new user profile for the person who will submit your 2005 data. Use the PIN provided in the enclosed cover letter to access the system. This person is a data entry user until their status is changed to Data Administrator.
- Ask the 2004 Data Administrator to change the user's role. Go to the Admin tab located at the top of the Forms Log screen and click the Edit Role link to update roles; or
- Call or email the Annual Report Hotline and ask that your user role be changed to Data Administrator. In Portland call (503) 229-6938 or toll-free in Oregon at 1-800-452-4011, extension 6938. An email request can be sent to hazwaste@deq.state.or.us

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want to use the Export...Import feature to copy waste stream information. Contact the Annual Report Hotline for more information.

24. Provide all the information requested (A-1 through B-5).
25. Click the **Manage Shipments** button to record information about off-site shipments (B-6). The data entry screen for off-site shipments displays.
26. Provide all the information requested.
27. Click **Save and Return** button at the bottom of screen.
28. Click **Save and Validate** button when you are done with this waste stream. Click the **Save** button to save data without validating.
29. Repeat steps until you have entered all of your waste streams.
30. Select the **Forms** tab to return to the **Reporting Forms Log** screen.

Validating your data

31. On the **Reporting Forms Log** screen, scroll down to the **Annual Report Form History** section. Click the **Validate Data** link on the right side of the screen. If the **Validate Report Results** screen is displayed with errors, click on the form links to correct the errors. Printing a copy of the error report may be helpful if you have more than a few errors.
32. Correct all errors identified in the report and then validate your data again.
33. When you get a message "No errors at this time", select the **Forms** tab to return to the **Reporting Form Log** screen.

Submitting your data

34. On the **Reporting Forms Log** screen, scroll down to the **Annual Report Form History** section. Click the **Submit Data** link on the right side of the screen. The **Annual Report Submission** screen displays.
    Note: Only the Data Administrator has access to the **Submit Data** link. Review the Frequently Asked Questions document (questions 5 and 6) for help if you do not have access.
35. Click the **Submit** button.
36. Click **OK** if you want to certify your report. The system will do a final check of your data and will display a **Processing Request** message. Once your data is checked, the system will display one of two screens:
    - **Validate Report** screen. Correct all errors identified in the report and then submit your data again. The **Reporting Form Log** screen displays if there are no errors.
    - **Reporting Forms Log** screen with a **"Your electronic submission to DEQ was successful. Thank you."**
37. You can log off or print a copy of your report.

Printing a copy of your submitted report (See page 4 for printing blank forms)

38. To print a copy of the **RCRA Waste Site Identification Form**
    - On the **Reporting Forms Log** screen, in the **Site ID Form History** section, click the **Print** link next to the report you want to print. The most recent report submitted is displayed on the top row.
39. To print a copy of your **Generation and Management Answer Sheet**
    - Select the **Forms** tab to display the **Reporting Forms Log** screen and then scroll down to the **Annual Report Form History** section.
    - Click the **GM – Waste Streams Generated** link. The **GM Waste Streams** summary screen displays.
    - Click the **Print** link next to each waste stream.

If you need help using HazWaste.net, please call DEQ in Portland at (503) 229-6938 or toll-free within the State of Oregon at (800) 452-4011, extension 6938.

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13. Do the following:
    - Section 1 : Only use this section if you want to withdraw your Site Identification Number:
        - Select the reason for withdrawing your number.
        - Select the Effective date.
        - Select Filing for partial year if you are filing the report for a portion of the year covering your ownership.
        - Select Clear Selection if you selected Withdraw or Revised by mistake.
    - Section 2: Not applicable.
    - Section 3-10: Last year's reporting information is displayed. Verify and update information. Answer all questions marked with a red asterisk (required fields).
      Note: In Section 6, Legal Owner, cannot not be changed electronically. See additional information on page 4 to print a pre-populated SI Form in order to mail hardcopy form.
      Note: In Section 10, Question 1, make sure your generator status matches the quantity of waste your facility generated during the 2005 reporting year.
    - Section 11-13: Not applicable.
    - Section 14: Enter comments to provide additional information.
14. Click the **Save** button. If no errors are identified, the **Reporting Forms Log** screen displays.

CEGs skip to Step 34 "Submitting your data." Small and Large Quantity Generators continue with the following steps.

Entering your Off-site Facility Identification (OI) information (Form used to collect transporter and designated Treatment, Storage, Disposal [TSD] information)

15. Scroll down to the **Annual Report Form History** section. **Click** the **OI – Off-site Facilities** link. The **OI Summary** screen displays.
16. Click the **Add** button. The **OI Facilities** screen opens.
17. You can complete this form by doing one of the following:
    - In the **Site Identification Number** box, type your handler's US EPA ID number and then Click the **Find** button, or
    - In the **Name** box, type your handler's name and then Click the **Find** button. Click the **RCRA Site ID** link next to the facility you want to select.
    - If the system does not return information on your handler, type the US EPA identification number, name, and address information for your handler, in the appropriate boxes.
18. **Select** the handler type(s).
19. Click the **Save and Validate** button at the bottom of screen. Click the **Save** button to save data without validating.
20. Repeat these steps to record all off-site facilities you used during the report year.
21. Select the **Forms** tab to return to the **Reporting Forms Log** screen.

Entering your Generation and Management (GM) Information (Form used to collect waste stream information)

22. Scroll down to the **Annual Report Form History** section. Click the **GM – Waste Streams Generated** link. The **GM Waste Streams** summary screen displays.
23. Click the **Add** button. The **GM Form (simple version)** screen displays. You can Click the **Switch to Expert Version** button which will allow you to enter your data by keying in the information. On the simple version screen displayed, you can add information by typing or from drop down boxes. For example, the simple version has a drop down box that includes the site identification numbers you entered on the OI form. The simple version also gives you the option to **Select Waste Stream** to copy waste stream information from the previous year. This is a good feature if you have the same waste streams every year and want to save some typing of waste stream descriptions. Companies with a large amount of waste streams may

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GENERAL INSTRUCTIONS

DEQ's Hazardous Waste Reporting System, HazWaste.net

This document provides general information for using HazWaste.net. For more detailed instructions, print the HazWaste.net Training Manual located at www.deqhazwaste.net. The Form, Source, and Management code lists, needed for the waste generation and management (GM) form, can also be found at this internet address. For specific information about the questions asked on the reporting forms use the online help boxes (?) located next to each question.

Navigation Tip

Please do not use the Back or Forward buttons to move between screens. This may result in your losing data. You can click the Forms tab on the top of the screen to select and open forms from the Reporting Forms Log screen.

Creating a User Profile (Only for new users)

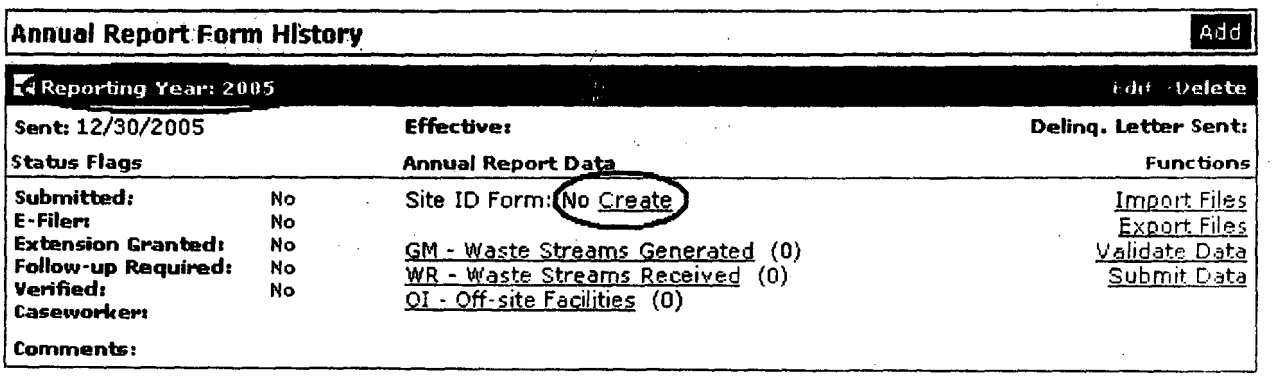
1. Go to the annual reporting home page at www.deqhazwaste.net.
2. Click the **HazWaste.net** link located at the top of the page. This will open the **Sign In** screen.
3. Click the **Create User Profile** link that is located in the gray box to the right of the Sign In box. This will open the **PIN Validation** screen.
4. Type your RCRA Site Identification Number and Personal Identification Number (PIN). You can find your RCRA ID# and PIN in the enclosed cover letter.
5. Click the **Submit** button. This will open the **User Profile** screen.
6. Answer all the questions marked with a red asterisk (required fields). You choose your own user name and password. The user name is not case sensitive; the password is case sensitive.
7. Click the **Submit** button. You will return to the **Sign In** screen.

Sign In to HazWaste.net (additional information provided for previous users on page 4)

8. Sign in to HazWaste.net at www.deqhazwaste.net using the user name and password you created.
9. Click **Submit**. After you sign in, sites assigned to you are displayed.
10. Click the **RCRA Site ID Number** link to begin your annual report.

Entering your Site ID Form (Form used to collect site contacts and generator status)

11. The **Reporting Forms Log** screen, which shows your facility's reporting history, displays. **Scroll** down to the **Annual Report Form History** section. Your Reporting Year 2005 box displays.



12. Click the **Create** link, located in the middle of this box, immediately after "**Site ID Form**:" The **Site ID Form** displays.

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Post-it® Fax Note 7671 | Date 2/23/05 | # of pages ▶ 6

To Traci Self | From Amos

Co./Dept. For your files | Co. —

Phone # | Phone #

Fax # | Fax #

Land Quality

DEQ

Production Database Site ID Form

User: kamereras Role: Administrator Log Off

RCRA Site ID: ORD027734359

Koppers Inc
7540 NW ST HELENS RD
PORTLAND, OR 97210

The Site ID Form has been submitted to DEQ. Therefore, changes to this record cannot be saved. If a modification is needed to a Site ID Form that is included as part of your annual report submission, please submit an amendment request. Otherwise, you will need to contact DEQ to modify your revised or withdrawn Site ID Form.

Site ID Form

1. Reason for Submittal

To provide **New** Notification of Regulated Waste Activity (complete entire form)

- ○ Initial notification ($200 non-refundable fee required)
- ○ Change in business ownership (represent the new owner) (No fee required)
- ○ Reactivation of RCRA Site ID Number ($200 non-refundable fee required)

○ To provide **Revised** Site Identification Information

To **Withdraw** Site Identification Number

- ○ Completion of RCRA waste activity
- ○ Change in business ownership (represent the old owner)

○ To **Admin-Withdraw** Site Identification Number

Effective Date 12/31/2004 (mm/dd/yyyy)

☑ To provide as a component of the **Annual Hazardous Waste Report** (skip sections 11, 12, and 13)

Reporting Year: 2004 If ownership changed: ◉ Filing for entire year ○ Filing for partial year

2. RCRA Site ID Number: ORD027734359

3. Site Location Information

Company Name	Koppers Inc *
Site Location	7540 NW ST HELENS RD *
	PORTLAND OR 97210
	MULTNOMAH
Corp. Div. Registry Nbr.	[redacted]
NAICS Code	325192 * [redacted]
Number of Employees	3

4. Site Contact

Person Name	Amos Kamerer *
Mailing Address	7540 NW Saint Helens Road *
City	Portland *

State	Oregon *
Zip	97210-3663 * 12345-6789
Country	UNITED STATES *
Phone Number (Ext)	(503) 286-3681 * (123)123-4567, ext 1234
Email Address	kamereras@koppers.com

5. Land Owner

Organization Name	Northwest Natural Gas Co * (or provide Person Name below)
Person Name	
Mailing Address	220 NW 2nd Avenue *
City	Portland *
State	Oregon *
Zip	97209 * 12345-6789
Country	UNITED STATES *
Phone Number (Ext)	(503) 226-4211 * (123)123-4567, ext 1234
Owner Type	(•) Private ( ) Federal ( ) State ( ) County ( ) District ( ) Municipal ( ) Tribal ( ) Other *

6. Legal Owner

Organization Name	Koppers Inc * (or provide Person Name below)
Person Name	
Mail Address	436 7th Ave *
City	Pittsburgh *
State	Pennsylvania *
Zip	15219-1500 * 12345-6789
Country	UNITED STATES *
Phone Number (Ext)	(412) 227-2883 * (123)123-4567, ext 1234
Owner Since	12/29/1988 (mm/dd/yyyy)
Owner Type	(•) Private ( ) Federal ( ) State ( ) County ( ) District ( ) Municipal ( ) Tribal ( ) Other *

7. Site Operator

Organization Name	Koppers Inc * (or provide Person Name below)
Person Name	Amos Kamerer
Mail Address	7540 NW Saint Helens Road *
City	Portland *
State	Oregon *
Zip	97210-3663 * 12345-6789
Country	UNITED STATES *
Phone Number (Ext)	(503) 286-3681 * (123)123-4567, ext 1234
Operator Since	(mm/dd/yyyy)

Operator Type	(•) Private ( ) Federal ( ) State ( ) County ( ) District ( ) Municipal ( ) Tribal ( ) Other *

8. Forms Contact

Person Name	Amos Kamerer *
Organization Name	Koppers Inc
Title	
Mailing Address	7540 NW Saint Helens Road *
City	Portland *
State	Oregon *
Zip	97210-3663 * 12345-6789
Country	UNITED STATES *
Phone Number (Ext)	(503) 286-3681 * (123)123-4567, ext 1234
Email Address	kamereras@koppers.com *

9. Fee Contact

Person Name	Amos Kamerer *
Organization Name	Koppers Inc
Title	
Mail Address	7540 NW Saint Helens Road *
City	Portland *
State	Oregon *
Zip	97210-3663 * 12345-6789
Country	UNITED STATES *
Phone Number (Ext)	(503) 286-3681 * (123)123-4567, ext 1234
Email Address	kamereras@koppers.com

10. Type of Regulated Waste Activity

1. Generator of Hazardous Waste

( ) a. LQG: Large Quantity Generator (Generates greater than 2,200 lbs/mo or more than 2.2 lbs of acute hazardous waste)

( ) b. SQG: Small Quantity Generator (Generates between 220-2,200 lbs/mo or more than 2,200 lbs accumulated on-site)

(•) c. CEG: Conditionally Exempt Generator (Generates between 0-220 lbs/mo, less than 2.2 lbs of acute hazardous waste and less than 2,200 lbs accumulated on-site)

2. Are you a hazardous waste generator due to remediation of environmental contamination or a business closure?

( ) Yes

(•) No

If yes, find out about expedited annual reporting at: http://www.deq.state.or.us/wmc/hw/factsheets/HWFeesForCleanups.pdf

[ ] **3. Importer of Hazardous Waste**

[ ] **4. Generator of Mixed Radioactive Waste**

[ ] **6. Treatment, Storage, Disposal (TSD) Facility**
(Note: A RCRA Permit is required for this activity)

7. Recycler of Hazardous Waste

[ ] a. Recycles HW generated at this facility

[ ] b. Recycles HW generated by other facilities

8. Hazardous waste management in RCRA permit exempt units (e.g., elementary neutralization units, waste water treatment units, or accumulation tanks or containers)

[ ] a. Manages HW generated at this facility

[ ] b. Manages HW generated by other facilities

9. Exempt Boiler and/or Industrial Furnace

[ ] a. Small Quantity On-site Burner Exemption

[ ] b. Smelting, Melting, Refining Furnace Exemption

10. Underground Injection Control

( ) Yes

(•) No

5. Transporter of Hazardous Waste

- a. Transports hazardous waste generated at this facility
- b. Transports for commercial purposes
- c. Hazardous Waste Transfer Facility

If yes, there may be additional reporting requirements at: http://www.deq.state.or.us/wq/groundwa/uichome.htm

11. Description of Hazardous Waste (Not required if part of an annual report)

1. Waste Codes for Federally Regulated Hazardous Wastes: Identify those codes that best describe your waste.(e.g., D001 - Ignitable, D002 - Corrosive, D003 - Reactive, etc) Enter the code only, separated by commas.

2. Waste Codes for State Regulated Hazardous Wastes: Identify those codes that best describe your waste. (e.g., ORX001, ORX007, ORP003, ORU001, etc) Enter the code only, separated by commas.

12. Universal Waste Activities (Mark the appropriate boxes for activities that apply to your site)

- **1. Large Quantity Handler of Universal Waste** (Accumulates a total of 11,000 lbs. or more of universal waste at any time, at the location at which it was generated)
- **2. Off-site Universal Waste Collection Site** (Accumulates a total of 2,000 lbs. or more of universal waste received from off-site). If yes, there are additional notification requirements at : http://www.deq.state.or.us/wmc/documents/uwnotification.pdf
- **3. Pesticide Collection Program** (Collects and accumulates waste pesticides from off-site). If yes, there are additional notification requirements at: http://www.deq.state.or.us/wmc/documents/uwnotification.pdf
- **4. Destination Facility for Universal Waste** (A facility that treats, dispose of, or recycles universal wastes on-site)

5. (Mark all boxes that apply; skip if you did not check items 1 through 4 in this section.)

	Generate	Accumulate
a. Batteries	☐	☐
b. Mercury containing thermostats	☐	☐
c. Lamps	☐	☐
d. Pesticides	☐	☐

13. Used Oil Activities (Mark the appropriate boxes for activities that apply to your site)

- **1. Used Oil Collection Center**
- **2. Used Oil Transporter**
- **3. Used Oil Transfer Facility**
- **4. Used Oil Processor/Re-refiner**

Indicate type(s) of activity(s)

- a. Processor
- b. Re-refiner
- **5. Off-Specification Used Oil Burner** (not used oil space heaters operating according to CFR 279.23)
- **6. Used Oil Fuel Marketer**

Indicate type(s) of activity(s)

- a. Marketer who directs shipments of off-specification used oil to off-specification used oil burner
- b. Marketer who first claims the used oil to meet the specifications

14. Comments

Help Support

Land Quality

DEQ

HOME FORMS PROFILE ADMIN

Production Database Reporting Forms Log

User: kamereras Role: Administrator Log Off

RCRA Site ID: ORD027734359

Koppers Inc
7540 NW ST HELENS RD
PORTLAND, OR 97210

Open Pre-printed Site ID Form

Reporting Forms Log

Your electronic submission to DEQ was successful. Thank you.

Site ID Form History

Type	Status	Effective	Legal Owner	Submitted	E-Filer	
AR: RY2004	CEG	12/31/2004	Koppers Inc	Yes	Yes	View Print
AR: RY2003	LQG	12/31/2003	Koppers Inc	Yes	Yes	View Print
AR: RY2002	LQG	2/12/2003	Koppers Industries Inc	Yes	No	View Print
AR: RY2001	CEG	1/23/2002	Koppers Industries Inc	Yes	No	View Print
AR: RY2000	CEG	1/26/2001	Koppers Industries Inc	Yes	No	View Print
AR: RY1999	CEG	3/9/2000	Koppers Industries Inc	Yes	No	View Print
AR: RY1998	CEG	2/9/1999	Koppers Industries Inc	Yes	No	View Print
AR: RY1997	CEG	2/20/1998	Koppers Industries Inc	Yes	No	View Print
AR: RY1996	CEG	1/10/1997	Koppers Industries Inc	Yes	No	View Print
AR: RY1995	CEG	1/3/1996	Koppers Industries Inc	Yes	No	View Print
AR: RY1994	CEG	4/10/1995	Koppers Industries Inc	Yes	No	View Print
AR: RY1993	CEG	2/3/1994	Koppers Industries Inc	Yes	No	View Print
AR: RY1992	CEG	2/10/1993	Koppers Industries Inc	Yes	No	View Print
New: RY1991	CEG	4/1/1992	Koppers Industries Inc	Yes	No	View Print

Annual Report Form History

− Reporting Year: 2004

Sent: 12/29/2004 **Effective:** 12/31/2004

Status Flags		Annual Report Data	Functions
Submitted:	Yes	Site ID Form: Yes	Export Files
E-Filer:	Yes		Amend Data
Extension Granted:	No	GM - Waste Streams Generated (0)	
		WR - Waste Streams Received (0)	
		OI - Off-site Facilities (0)	

+ Reporting Year: 2003

+ Reporting Year: 2002

+ Reporting Year: 2001

+ Reporting Year: 2000

+ Reporting Year: 1999
+ Reporting Year: 1998
+ Reporting Year: 1997
+ Reporting Year: 1996
+ Reporting Year: 1995
+ Reporting Year: 1994
+ Reporting Year: 1993
+ Reporting Year: 1992
+ Reporting Year: 1991

Help Support

KOPPERS

FAX TRANSMITTAL

7540 N.W. Saint Helens Rd.
Portland, Oregon 97210-3663
Phone: (503) 286-3681
Fax: (503) 285-2831
Web Page: www.koppers.com

TO: Traci Self DATE: 4/5/04

FROM: Amos TOTAL # OF PAGES: 7

Here's A copy of the 2003 ODEQ HW Report
for your files —

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

		[illegible]	Koppers Industries Inc	Yes	No	View Print
AR: RY1998	CEG	2/9/1999	Koppers Industries Inc	Yes	No	View Print
AR: RY1997	CEG	2/20/1998	Koppers Industries Inc	Yes	No	View Print
AR: RY1996	CEG	1/10/1997	Koppers Industries Inc	Yes	No	View Print
AR: RY1995	CEG	1/3/1996	Koppers Industries Inc	Yes	No	View Print
AR: RY1994	CEG	4/10/1995	Koppers Industries Inc	Yes	No	View Print
AR: RY1993	CEG	2/3/1994	Koppers Industries Inc	Yes	No	View Print
AR: RY1992	CEG	2/10/1993	Koppers Industries Inc	Yes	No	View Print
New: RY1991	CEG	4/1/1992	Koppers Industries Inc	Yes	No	View Print

Annual Report Form History

— Reporting Year: 2003

Sent: 12/24/2003 **Effective:** 12/31/2003

Status Flags		Annual Report Data	Functions
Submitted:	Yes	Site ID Form: Yes	Export Files
E-Filer:	No		Amend Data
Extension Granted:	No	GM - Waste Streams Generated (1)	
		WR - Waste Streams Received (0)	
		OI - Off-site Facilities (2)	

+ Reporting Year: 2002

+ Reporting Year: 2001

+ Reporting Year: 2000

+ Reporting Year: 1999

+ Reporting Year: 1998

+ Reporting Year: 1997

+ Reporting Year: 1996

+ Reporting Year: 1995

+ Reporting Year: 1994

+ Reporting Year: 1993

+ Reporting Year: 1992

+ Reporting Year: 1991

Help Support

Land Quality

HOME **FORMS** PROFILE ADMIN

Reporting Forms Log

User: kamereras **Role:** Administrator Log Off

RCRA Site ID: ORD027734359

Koppers Inc
7540 NW ST HELENS RD
PORTLAND, OR 97210

Open Pre-printed Site ID Form

Reporting Forms Log

Site ID Form History

Type	Status	Effective	Legal Owner	Submitted	E-Filer	
AR: RY2003	LQG	12/31/2003	Koppers Industries Inc	Yes	No	View Print
AR: RY2002	LQG	2/12/2003	Koppers Industries Inc	Yes	No	View Print
AR: RY2001	CEG	1/23/2002	Koppers Industries Inc	Yes	No	View Print
AR: RY2000	CEG	1/26/2001	Koppers Industries Inc	Yes	No	View Print
AR: RY1999	CEG	3/9/2000	Koppers Industries Inc	Yes	No	View Print
AR: RY1998	CEG	2/9/1999	Koppers Industries Inc	Yes	No	View Print
AR: RY1997	CEG	2/20/1998	Koppers Industries Inc	Yes	No	View Print
AR: RY1996	CEG	1/10/1997	Koppers Industries Inc	Yes	No	View Print
AR: RY1995	CEG	1/3/1996	Koppers Industries Inc	Yes	No	View Print
AR: RY1994	CEG	4/10/1995	Koppers Industries Inc	Yes	No	View Print
AR: RY1993	CEG	2/3/1994	Koppers Industries Inc	Yes	No	View Print
AR: RY1992	CEG	2/10/1993	Koppers Industries Inc	Yes	No	View Print
New: RY1991	CEG	4/1/1992	Koppers Industries Inc	Yes	No	View Print

Annual Report Form History

− Reporting Year: 2003

Sent: 12/24/2003 **Effective:** 12/31/2003

Status Flags		Annual Report Data	Functions
Submitted:	Yes	Site ID Form: Yes	Export Files
E-Filer:	No		Amend Data
Extension Granted:	No	GM - Waste Streams Generated (1)	
		WR - Waste Streams Received (0)	
		OI - Off-site Facilities (2)	

+ Reporting Year: 2002

+ Reporting Year: 2001

+ Reporting Year: 2000

+ Reporting Year: 1999

+ Reporting Year: 1998

Land Quality

RCRA Site ID: ORD027734359

Koppers Inc
7540 NW ST HELENS RD
PORTLAND, OR 97210

Reporting Year: **2003**

Find Sequence Number:

GM Waste Streams

Sequence	Waste Stream ID	Waste Description	Total Quantity (lbs)	
1		Hazardous waste, solid, n. o. s.	2,908.00	·Print ·View

Land Quality

HOME FORMS PROFILE ADMIN
GM Form (simple version)

User: kamereras Role: Administrator Log Off

RCRA Site ID: ORD027734359

Koppers Inc
7540 NW ST HELENS RD
PORTLAND, OR 97210

Reporting Year: **2003**

The annual report for this reporting year has been submitted to DEQ. Therefore, changes to this record cannot be saved. If a modification is needed, please submit an amendment request.

GM Form (simple version) [redacted]

A. Description of Hazardous Waste Stream

Sequence Number: 1

A-1. What is your waste stream identification? (optional)

A-2. Briefly describe the hazardous waste stream:
Hazardous waste, solid, n. o. s.

A-3. Which EPA hazardous waste codes are associated with this waste stream?
D018 - BENZENE
U051 - CREOSOTE

A-4. Which Oregon state-only hazardous waste code is associated with this waste stream?

A-5. Which source code best describes the type of process or activity from which this waste stream was generated?
G14 - Removal of tank sludge, sediments or slag

A-5.a. If you specified source code G25 in question A-5, please enter the management method code from the on-site hazardous waste management system:

A-5.b. If you specified source code G62 in question A-5, please enter the country of origin from which this waste was received:

A-6. Which form code best corresponds to the physical form or chemical composition of this waste stream?
W319 - Other inorganic solids (specify in comments)

A-7. If there were toxic substances in this waste stream that your facility reported on its 2002 Toxic Chemical Release Inventory(TRI) Reporting Form (Form R), please provide the CAS numbers reported:

BENZENE - 71-43-2
CREOSOTE - 8001-58-9

A-8. Did this waste stream contain mercury? ○ Yes ◉ No

A-8.a. If you answered yes to question A-8, please provide a reasonable estimate of the percentage of mercury in this waste stream (do not type the % sign):

B. Hazardous Waste Management Activities

B-1. What is the total amount of this waste stream generated in the reporting year and what is the unit of measure?

2908.000 ◉ Pounds ○ Gallons ○ Tons ○ Cubic Yards ○ Kilograms

B-1.a. If the waste stream is measured in gallons or cubic yards, what is its density?

○ Pounds/gallon ○ Specific gravity ○ Pounds/cubic yard ○ N/A

B-2. Was the waste stream managed on-site, off-site, or both?

○ On-Site ◉ Off-Site ○ Both

B-3. If all or part of this waste stream was managed on-site, how much was managed on-site and how was it managed?

Quantity

Management Method Code

B-4. Indicate the quantity of this waste stream that was remaining on-site at the end of the calendar year you are reporting:

0.000

B-5. Indicate the quantity of this waste stream that was carried forward from the previous reporting year:

0.000

B-6. You have entered 4off-site shipments of this waste stream. Please click the Manage Shipments button to add, edit, or delete off-site shipments.

C. Use the Comments section to provide comments, information or explanations as necessary. In your comments, always provide the reference to the specific question number.

A-6. Tank residues and PPE.

Help Support

DEQ

Land Quality

HOME **FORMS** PROFILE ADMIN

GM Form (simple version)

User: kamereras **Role:** Administrator Log Off

RCRA Site ID: ORD027734359

Koppers Inc
7540 NW ST HELENS RD
PORTLAND, OR 97210

Reporting Year: **2003**
Sequence Number: 1
Description: Hazardous waste, solid, n. o. s.

GM Form (simple version)

Find Manifest Number:

B-6. Please provide the following information for each off-site shipment of waste in the same unit of measure you reported for the amount generated:

Page 1 of 1 (4 Records)

i. Shipment Date (mm/dd/yyyy)	ii. Manifest Number	iii. Quantity Shipped	iv. Transporter ID	v. Management Code	vi. Designated Facility ID
02/28/2003	86766	1149.00	WAD058364647	H040	UTD981552177
08/20/2003	97394	195.00	WAD058364647	H040	UTD981552177
09/11/2003	98454	619.00	WAD058364647	H040	UTD981552177
12/11/2003	98452	645.00	WAD058364647	H040	UTD981552177

Help Support

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Headquarters
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6124
TTY (503) 229-6993

December 24, 2003

Post-it® Fax Note 7671	Date 12/29/03	# of pages ▶ 6
To Traci Self	From Amos	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

Amos Kamerer (LQ-HW-AR)
Koppers Industries Inc
7540 NW St Helens Rd
Portland, OR 97210-3663

HazWaste Personal Identification Number (PIN)

All hazardous waste generators that have an active RCRA Site Identification Number are required to file an annual report. A reminder and instructions will be sent to the forms contact each December indicating a March 1 due date. The PIN number below provides you access to HazWaste.net, the State of Oregon's Hazardous Waste Electronic Reporting application. The Web address for the HazWaste.net application is www.deq.state.or.us/wmc/hw/hwrptonlineforms.htm. Please go to this Web address and select the option to create an account. Provide your RCRA Site ID Number and PIN when prompted. You will then be asked to setup a user profile for future access to the application.

By default, the user who sets up the application is given the Administrator role. The administrator has the option of establishing additional "data entry" type roles so that others may have access to the application for this RCRA Site ID Number. Please refer to the application help for a definition of user roles.

RCRA Site ID Number:	ORD027734359
Personal Identification Number (PIN)	5282
Facility Name:	Koppers Industries Inc
Site Location:	7540 NW ST HELENS RD PORTLAND, OR 97210

Thank you for using HazWaste.Net. If you have any questions, please call DEQ in Portland at (503) 229-6352 or toll-free with the Oregon at 1-800-452-4011, extension 6352. You can also email your questions to hazwaste@deq.state.or.us.

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
503-229-5696
TTY 503-229-6993

December 24, 2003

Re: 2003 Hazardous Waste Annual Report
New Reporting Forms
New Electronic Reporting System

Dear Hazardous Waste Coordinator:

Department of Environmental Quality (DEQ) records indicate that your company has filed for an identification number for hazardous waste activities. All hazardous waste generators must submit an annual report as required by Oregon Administrative Rules 340-102-0012, 340-102-0041, and 340-104-0075. The annual report for calendar year 2003 is due by **March 1, 2004**.

Important changes to this year's reporting are 1) electronic reporting replaces the previous paper reports and 2) reporting forms have been updated to be consistent with the Environmental Protection Agency (EPA) requirements. DEQ is encouraging reporters to use the new electronic reporting system, HazWaste.net. Our goal is to make the process of reporting faster, easier, and better. More specific detail on these changes and important reporting instructions follows. In addition, this notice includes as a separate attachment your Personal Identification Number (PIN) for electronic reporting and a Hazwaste.net training schedule with dates and places. We hope to see you there!

Benefits of Using HazWaste.net – the New Electronic Reporting System

- All hazardous waste reporters, Conditionally Exempt, Small, and Large Quantity Generators can fill out their report information in HazWaste.net and submit on-line via the Internet.
- Companies that have their own electronic hazardous waste tracking systems (one example would be Excel spreadsheets) can import the data files directly into HazWaste.net.
- Hazardous waste shipping records can be entered all year but not submitted to DEQ until the user is ready. Information not yet submitted to DEQ can only be viewed by you.
- Site information such as contact information, ownership changes, closures, etc., can be submitted throughout the year.
- HazWaste.net is designed for use by both beginners and experts. The simple version on the Generation & Management (GM) Waste Stream Form has drop-down lists for the required codes (Form, Source, and Management Method).
- Validation checks alert you to errors before you submit your data.
- You can view your annual reports from earlier years.

How to Submit Your 2003 Annual HW Report Electronically

- HazWaste.net works with any computer having Internet and e-mail access.
- Open HazWaste.net using the web site address provided on your attached PIN letter (www.deq.state.or.us/wmc/hw/hwrptonlineforms.htm).

DEQ-1

- View or print the training manual, the frequently asked questions, the hazardous waste definitions, the code lists or any other helpful document you think you might need.
- The line-by-line instructions is the same information found in the electronic help boxes for each question on the forms.
- The training manual will walk you through using HazWaste.net.

New Reporting Updates for 2003

- The DEQ/EPA Identification Number is now referred to as the RCRA Site Identification Number.
- The Site Identification (SI) Form replaces four forms: 1) the Registration Verification Report, 2) Notification of Hazardous Waste Activity Form, 3) Notification of Used Oil Activity Form, and 4) Notification of Universal Waste Activity Form.
- The Standard Industrial Classification (SIC) code has been replaced by the North American Industry Classification System (NAICS) code by the U.S. Census Bureau. Your NAICS code must be provided on the SI Form.
- The Form, Source, and Management Method codes have been revised by the Environmental Protection Agency (EPA). Small and large quantity generators must use these new codes on their GM Waste Stream Forms. Treatment, Storage, Disposal (TSD) facilities must use these new codes on their Waste Received (WR) Forms.
- A few new questions have been added to the SI Form and the GM Waste Stream Form. Help in answering these new questions or any of the form questions can be found in the electronic help boxes, by downloading and printing the line-by-line instructions, or by calling DEQ (See "Where to Get Help" section).
- The Off-Site Identification (OI) Form has been added to make it easier to enter RCRA Site ID numbers for transporters and waste receiving facilities (TSDs) on the GM Waste Stream forms. You enter the OI facility once in the OI Form and it becomes part of your drop down list on the GM Waste Stream Form (simple version). This saves you time so you do not have to enter the identification number for OI facilities multiple times for multiple shipments.

Important Reporting Instructions

- The 2003 annual report must accurately reflect your company's hazardous waste activities for calendar year 2003.
- Your generator status is determined by the largest amount of hazardous waste you generated or had on-site in <u>any one month</u> during the 2003 calendar year.
- If your facility was a Conditionally Exempt Generator (CEG) during every month of 2003, submit only the SI Form. GM Waste Stream Forms are not required.
- Verify that the information DEQ has in the HazWaste.net database is correct. Revise any information that needs to be updated by typing over the top of the incorrect data.
- **If there was an ownership change, the SI Form must be submitted by mail.** The signature of the legal owner or an authorized representative is required. Download and print the SI Form from HazWaste.net or call the

number given below to request that a copy be mailed to you. To print a SI Form from HazWaste.net follow these steps:

a.) Follow the directions in the PIN letter to create a user account.
b.) Once in HazWaste.net, click on "Open Pre-Printed Site ID Form" at the top of the Forms main page and print the form.
c.) Update the form by handwriting the new owner information in the space provided. Under "Reason for Submittal" check the "Change in business ownership (represent the new owner)" box. Please provide the effective date. Complete the entire form (revising or checking all boxes that are applicable).
d.) If you are a CEG you can also submit your 2003 annual report at the same time. Follow the previous step but also check the box "To provide as a component of the Annual Hazardous Waste Report" and enter 2003. Be sure to indicate if you are filing for the entire year or the part of the year you were in ownership.
e.) SQGs and LQGs can file their waste stream information electronically after DEQ processes the hardcopy SI Form for the new ownership. If you prefer to file the waste stream information with the hardcopy SI Form, call the number below and request that the forms be mailed to you.
f.) Mail the completed signed form to the address provided at the top of the printed SI Form.

- **If you would like to withdraw the RCRA Site Identification Number,** check the Withdrawal selection on the SI Form. Report your hazardous waste activities for the part of the year the facility operated in 2003.
- **If you need an extension to the March 1, 2004 deadline,** please email your request before March 1, 2004 to hazwaste@deq.state.or.us.
- The following are some important examples of information you will find in the Frequently Asked Questions.

  a.) Did you know that if hazardous waste is treated on-site and rendered non-hazardous before shipment to a solid waste landfill it must still be reported on the GM Waste Stream Forms?
  b.) When reporting off-site shipments on the GM Waste Stream Form subject to multiple management methods, the final management method the Treatment, Storage, Disposal (TSD) facility provided must be reported.
  c.) Hazardous waste that is treated on-site and creates a hazardous residual must be reported on two GM Waste Stream Forms. One form for the on-site treatment (e.g., distillation) and one form for the hazardous residual (e.g., sludge).

Where to Get Help

- Call DEQ in Portland at (503) 229-6938 or toll-free within the State of Oregon at 1-800-452-4011, extension 6938, if you need help with any of the following:
  a.) If you feel you have received this letter in error.
  b.) If you cannot file electronically and need to request paper forms.
  c.) If you need more information about any of the questions asked on the reporting forms.

- **If you need help using HazWaste.net,** do one of the following:
  a.) Attend one of the training workshops around the state designed to give you an overview of the electronic reporting system. Please see the attached training schedule for the event closest to you.
  b.) Telephone DEQ in Portland at 503-229-6352 or 503-229-6968. You can call toll-free within the State of Oregon at 1-800-452-4011, extension 6352 or extension 6968.
  c.) Email your questions to hazwaste@deq.state.or.us

- **If you need help or more information about hazardous waste regulations,**
  a.) Visit DEQ's hazardous waste web site for technical resources, regulations, fact sheets, etc., at www.deq.state.or.us/wmc/hw/hw.htm.
  b.) Contact DEQ's Toxics Use/Waste Reduction Assistance Program (TU/WRAP) staff at your nearest regional office. TU/WRAP staff provides free and confidential technical assistance to businesses throughout Oregon. Call one of these regional offices:

Eastern Region
2146 NE 4th St., Suite 104
Bend, OR 97701
(541) 388-6146

Northwest Region
2020 SW 4th Ave., Suite 400
Portland, OR 97201
(503) 229-5263

Western Region
750 Front St., NE, Suite 120
Salem, OR 97310
(503) 378-8240

Thank you in advance for timely reporting and safely managing your hazardous waste. Remember, the annual report for calendar year 2003 is due by **March 1, 2004.**

Sincerely,

Nancy Dollar

Nancy Dollar, Project Coordinator
Land Quality Division
Hazardous Waste Program

Department of Environmental Quality
Training Schedule for
New Electronic Reporting System-HazWaste.Net

Date	City	Time	Location
Jan. 6, 2004	Portland	9:00 to 11:00	Conference Room 3A **DEQ Headquarters** 811 SW Sixth Ave. Portland, OR
Jan. 7, 2004	Salem	2:00 to 4:00	Bldg 49, Fireside Room at **Chemeketa Community College** 4000 Lancaster Dr NE Salem, OR 97309
Jan. 8, 2004	The Dalles	2:00 to 4:00	Boardroom in Building One **Columbia Gorge Community College** 400 East Scenic Drive The Dalles, OR
Jan. 13, 2004	Medford	2:00 to 4:00	3rd Floor Council Chamber **Medford City Hall** 411 W. 8th Street Medford, OR
Jan. 14, 2004	Eugene	2:00 to 4:00	Bldg. 1, Student Services Bldg., Room 102 **Lane Community College** 4000 East 30th Avenue Eugene, OR
Jan. 15, 2004	Portland	2:00 to 4:00	Conference Room 3A **DEQ Headquarters** 811 SW Sixth Avenue Portland, OR
Jan. 20, 2004	Bend	2:00 to 4:00	Conference Room **DEQ – Bend Office** 2146 NE 4th, Suite 104 Bend, OR
Jan. 21, 2004	Pendleton	2:00 to 4:00	CSEPP Conference Room **Umatilla County Justice Center** 4700 NW Pioneer Place Pendleton, OR

DEQ is encouraging hazardous waste generators to file their 2003 Annual Hazardous Waste Report electronically using the new HazWaste.net system.

This training is designed to give you an overview of the new electronic reporting system and answer any questions you might have. You do not need to register for the training. We hope to see you there.

If you have any questions, call DEQ in Portland at (503) 229-6352, or toll-free within the State of Oregon at 1-800-452-4011. You can also email your questions to hazwaste@deq.state.or.us