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: Traci Self DATE: 1/30/03

FROM: Amos TOTAL # OF PAGES: 5

For your review before mailing tomorrow

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

Registration Verification Report 2002

3 * 857

1. DEQ ID No: **ORD027734359** Name: **Koppers Industries Inc**
Location: **7540 NW ST HELENS RD**
PORTLAND, OR 97210
Site Contact Name: **Amos Kamerer** Site Contact Phone: **(503) 286-3681**
Current information, if different from above:

Your Standard Industrial Classification (SIC) code is currently:
2865: Cyclic Crudes & Intermediates
Current code if different:

DEQ
State of Oregon Department of Environmental Quality

Your current employee count is listed as 2 Please indicate the correct count if it has change 4

Verify the information in the left column, and make any corrections in the right column:

The owner of Koppers Industries Inc is:

2. Individual or Organization: **Koppers Industries Inc** Address: **436 7th Ave** **Pittsburgh, PA 15219** Phone: **(412) 227-2883**	Individual or Organization: Address: Phone:

The owner of the property on which Koppers Industries Inc is located is:

3. Individual or Organization: **Northwest Natural Gas Co** Address: **220 NW 2nd Avenue** **Portland, OR 97209** Phone: **(503) 226-4211**	Individual or Organization: Address: Phone:

The address for DEQ to send hazardous waste information to Koppers Industries Inc is:

4. Forms Contact: **Amos Kamerer** Organization: **Koppers Industries Inc** Address: **7540 NW St Helens Rd** **Portland, OR 97210-3663** Internet E-Mail: **kamererar@koppers.com** Phone: **(503) 286-3681**	Forms Contact: Organization: Address: Internet E-Mail: Phone:

The address for DEQ to send hazardous waste fee invoices for Koppers Industries Inc is:

5. Fee Contact: **Amos Kamerer** Organization **Koppers Industries Inc** Address: **7540 NW St Helens Rd** **Portland, OR 97210-3663** Phone: **(503) 286-3681**	Fee Contact: Organization: Address: Phone:

Hazardous waste generator status:

6. Koppers Industries Inc last reported as a Conditionally Exempt Generator on the 2001 Annual Report.
What was the generator status for Koppers Industries Inc in 2002, based on monthly generation records?

[XX] Large Quantity Generato [ ] Small Quantity Generato [ ] Conditionally Exempt Generato

12/16/2002

7. If the information for this facility has changed from what is preprinted in **Box 1** from the front of this form, then check all that apply. If no changes occurred, then skip to Box 8.

- ☐ The business (as preprinted) is no longer active at this location. We are a different company or a company new to this location. Date we opened for business: _____
- ☐ The business is the same; we have a new name.
- ☐ The location of the business has not changed. The local government modified the address.
- ☐ The business moved to a new location. ☐ I wish to apply for a new site-specific DEQ/EPA ID Number for the company's new location.

8. Has the ownership of this facility changed from what is preprinted in **Box 2** from the front of this form?

☐ **Yes** (If yes, Answer Questions 8a-8b) ☒ **No** (Skip to Box 9)

8a. What was the date of the ownership change? _____

8b. Are you completing this report for:

- ☐ The previous (preprinted name) company up to the time of closure? (Complete Box 9.)
- ☐ The current (new) company?
- ☐ Filing for the full calendar year?
- ☐ Filing for only that part of the year following purchase?

9. Indicate one of the following:

- ☒ I wish to keep the assigned DEQ/EPA Identification Number Active. (Skip to Box 10)
- ☐ I wish to cancel the assigned DEQ/EPA Identification Number because this facility does not generate or manage hazardous waste for the following reason (**Date must be provided**):
  - ☐ Closure of business (Date of Closure: _____)
  - ☐ Completion of a one-time cleanup and waste management activity (Date Completed: _____)
  - ☐ Change in business activity (Explain and Provide Date: _____ _____)
  - ☐ Other (Explain and Provide Date: _____ _____)

Note: The DEQ/EPA Identification Number is assigned to the physical location of the site and cannot be reassigned to a different location. The ID number is required for certain facilities such as: Hazardous Waste (HW) Transporters; Large Quantity HW Generators; Small Quantity HW Generators; Treatment, Storage, Disposal Facilities; HW Recycling Facilities; Marketers or Burners of HW Fuel; and facilities that engaged in some Used Oil or Universal Waste Activities. Conditionally Exempt Generators may also need an ID number for certain waste management activities.

10. *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 January 31, 2003

Amos S. Kamerer Plant Manager

Name (please print) Title

Mail completed form to:
Oregon DEQ
Land Quality Division
Attn: Hazardous Waste Forms Clerk
811 SW Sixth Avenue
Portland, OR 97204-1390

Remember: *If you were a small or large quantity generator during any part of 2002, you must complete the Waste Generation & Management Answer Sheets and attach them to this form. If filing Answer Sheets electronically, an Electronic Certification must be attached.*

Questions: (503) 229-5470 or (800) 452-4011 or visit our Website at www.deq.state.or.us/wmc/hw/hwrptonlineforms.htm

FROM :KOPPERS INDUSTRIES, INC. 503 285 2831 2003-01-30 13:24 #337 P.04/05

14. Provide the following information for each off-site shipment of waste.
(Include all shipments in 2002 for this waste stream even if it was generated in the previous year.)

Please Enter:
Facility Name: Koppers Industries Inc.
DEQ ID Number: ORD 027734359

2002 Manifest Shipment Date (enter month/day)	Manifest Document Number	Quantity Shipped of this Waste Stream (use unit of measure from Question #9)	DEQ/U.S. EPA ID # of First Transporter	Final management (enter mgmt. code, other than M141)	DEQ/U.S. EPA ID # of Receiving Facility (Designated Facility)
08/26/02	03726	21,262	WAD058364647	MO42	UTD 981552177
11/09/02	10304	44,820	WAD058364647	MO42	UTD981552177
11/13/02	10305	29,220	WAD058364647	MO42	UTD981552177
11/19/02	10307	42,540	WAD058364647	MO42	UTD981552177
12/02/02	10306	41,360	WAD058364647	MO42	UTD981552177
12/06/02	10342	45,180	WAD058364647	MO42	UTD981552177
12/11/02	10340	46,420	WAD058364647	MO42	UTD981552177
12/11/02	10324	21,834	WAD058364647	MO43	UTD981552177
12/11/02	10324	4,613	WAD058364647	MO41	UTD981552177

Comments: This work was done to recover usable product from several tanks, which resulted in having tank residues that required disposal. This was a one time event. We expect to return to tonditionally Exempt Generator status in the year 2003 and beyond.

Koppers019042

2002 Waste Generation and Management—Answer Sheet

PLEASE ENTER:
Facility Name: Koppers Industries Inc.
DEQ ID Number: ORD 027734359

NOTE: Make as many two-sided copies of the answer sheet as you need BEFORE answering any questions. REVIEW QUESTIONS ON PAGES 22-24 BEFORE COMPLETING ANSWER SHEET.

1. Waste Stream Description: Tank Residues

2. Waste Code(s): U051 | D0 18

3. State-Only Code OR: ORD 051 | ORD018

4. Mixed Waste? ☒ No ☐ Yes

5. Source Code: A A38

6. Form Code: B 606

7. Waste Origin: 1 ☐ 2 ☒ 3 ☐ 4 ☐ (If box 4, answer 7A)

7A. Residual Management Code M: _____

8. Reported toxic substances in waste? 1 ☐ 2 ☐ 3 ☐ (If box 3, answer 8A)

8A. CAS Number(s): 8001-58-9 | 71-43-2

9. Total quantity generated in 2002 for this waste stream: 297,249

Unit of Measure: P ☒ G ☐ ST ☐ C ☐ K ☐ L ☐ MT ☐

9A. Density: 8.7 ☐ Pounds/gallon ☐ Specific gravity ☐ Pounds/cubic yard

10. Did this waste stream contain mercury? ☒ No ☐ Yes (If Yes, answer 10A)

10A. What percentage of mercury? _____

11. Managed on or off-site? ☐ On-site (Answer 11A) ☒ Off-site (Answer 14) ☐ Both On-site & Off-site (Answer both 11A and 14)

11A. Quantity managed or recycled on-site _____ Management Code M _____

12. Total quantity of waste remaining on-site at the end of 2002: 0 (Not otherwise managed on-or off-site, but accumulated or stored)

13. Total quantity of waste carried over from 2001: 0

Monthly Generation Worksheet (Optional)

*Provide the actual monthly hazardous waste generation amounts for this waste stream (should not be a yearly average) Recommended for Small Quantity Generators.

January		July	
February		August	21,262
March		September	
April		October	
May		November	275,987
June		December	

Total Quantity Generated for 2002: 297,249

(Report shipments and comments on reverse side of sheet)

FROM :KOPPERS INDUSTRIES, INC. 503 285 2831 2003-01-30 13:24 #337 P.05/05

Koppers019043

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: Traci Self DATE: 1/25/03

FROM: Amos TOTAL # OF PAGES: 3

For your Review, comments and help

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

2002 Waste Generation and Management—Answer Sheet

PLEASE ENTER:
Facility Name: Koppers Industries, Inc.
DEQ ID Number: ORD027734359

NOTE: Make as many two-sided copies of the answer sheet as you need BEFORE answering any questions.
REVIEW QUESTIONS ON PAGES 22-24 BEFORE COMPLETING ANSWER SHEET.

1. Waste Stream Description: Tank residues

2. Waste Code(s): U051 D018

3. State-Only Code OR: ORU051 ORD018

4. Mixed Waste? ☒ No ☐ Yes

5. Source Code: A A38 6. Form Code: B _____ ? Pages 73 & 74

7. Waste Origin 1☐ 2☐ 3☐ 4☐ (If box 4, answer 7A)

7A. Residual Management Code M _____ ?

8. Reported toxic substances in waste? 1☐ 2☐ 3☐ (If box 3, answer 8A)

? 8A. CAS Number(s): 8001-58-9

9. Total quantity generated in 2002 for this waste stream: 338,609

Unit of Measure P☒ G☐ ST☐ C☐ K☐ L☐ MT☐

9A. Density _____ ☐ Pounds/gallon ☐ Specific gravity ☐ Pounds/cubic yard

10. Did this waste stream contain mercury? ☒ No ☐ Yes (If Yes, answer 10A)

10A. What percentage of mercury? _____

? 11. Managed on or off-site? ☐ On-site (Answer 11A) ☐ Off-site (Answer 14) ☐ Both On-site & Off-site (Answer both 11A and 14)

11A. Quantity managed or recycled on-site _____ Management Code M _____

12. Total quantity of waste remaining on-site at the end of 2002: 0 (Not otherwise managed on-or off-site, but accumulated or stored)

13. Total quantity of waste carried over from 2001: _____ ?

Monthly Generation Worksheet (Optional)
*Provide the actual monthly hazardous waste generation amounts for this waste stream (should not be a yearly average) Recommended for Small Quantity Generators.

January		July	
February		August	21,262
March		September	
April		October	
May		November	275,987
June		December	

Total Quantity Generated for 2002: 297,249

(Report shipments and comments on reverse side of sheet)

FROM :KOPPERS INDUSTRIES, INC. 503 285 2831 03,01-25 12:30 #332 P.02/03
Koppers019045

14. Provide the following information for each off-site shipment of waste.
(include all shipments in 2002 for this waste stream even if it was generated in the previous year.)

Please Enter:
Facility Name: Koppers Industries, Inc.
DEQ ID Number: ORD 027734 359

2002 Manifest Shipment Date (enter month/day)	Manifest Document Number	Quantity Shipped of this Waste Stream (use unit of measure from Question #9)	DEQ/U.S. EPA ID # of First Transporter	Final management (enter mgmt. code, other than M141) ?	DEQ/U.S. EPA ID # of Receiving Facility (Designated Facility)
08/26/02	03726	21,262	WAD 058364647		UTD 981552177
11/09/02	10304	44,820	"		"
11/13/02	10305	29,220	"		"
11/19/02	10307	42,540	"		"
12/02/02	10306	41,360	"		"
12/06/02	10342	45,180	"		"
12/11/02	10340	46,420	"		"
12/11/02	10324	26,447	"		"

? 0

Comments:

Koppers019046

FROM :KOPPERS INDUSTRIES, INC 503 285 2831 3,01-25 12:31 #332 P.03/03

Regist tion Verification Rep rt 2001

3 *1021

1. DEQ ID No: ORD027734359 Name: Koppers Industries Inc
Location: 7540 NW ST HELENS RD
PORTLAND, OR 97210
Site Contact Name: Amos Kamerer Site Contact Phone: (503) 286-3681
Current information, if different from above:

Your Standard Industrial Classification (SIC) code is currently:
2865: Cyclic Crudes & Intermediates
Current code if different:

DEQ
State of Oregon Department of Environmental Quality

Your current employee count is listed as: 6 Please indicate the correct count if it has changed 2

Verify the information in the left column, and make any corrections in the right column:

The owner of Koppers Industries Inc is:

2. Individual or Organization: Koppers Industries Inc Address: 436 7th Ave Pittsburgh, PA 15219 Phone: (412) 227-2883	Individual or Organization: Address: Phone:

The owner of the property on which Koppers Industries Inc is located is:

3. Individual or Organization: Northwest Natural Gas Co Address: 220 NW 2nd Avenue Portland, OR 97209 Phone: (503) 226-4211	Individual or Organization: Address: Phone:

The address for DEQ to send hazardous waste information to Koppers Industries Inc is:

4. Forms Contact: Amos Kamerer Organization: Koppers Industries Inc Address: 7540 NW St Helens Rd Portland, OR 97210-3663 Internet E-Mail: kamereras@koppers.com Phone: (503) 286-3681	Forms Contact: Organization: Address: Internet E-Mail: Phone:

The address for DEQ to send hazardous waste fee invoices for Koppers Industries Inc is:

5. Fee Contact: Amos Kamerer Organization Koppers Industries Inc Address: 7540 NW St Helens Rd Portland, OR 97210-3663 Phone: (503) 286-3681	Fee Contact: Organization: Address: Phone:

Hazardous waste generator status:

6. Koppers Industries Inc last reported as a Conditionally Exempt Generator on the 2000 Annual Report.
What was the generator status for Koppers Industries Inc in 2001, based on monthly generation records?

☐ Large Quantity Generator ☐ Small Quantity Generator ☒ Conditionally Exempt Generator

cc: T. Self, KII; M. Cilley, KII

12/17/2001

7. If the information for this fa[illegible]nas changed from what is preprinted in B[illegible] from the front of this form, then check all that apply. If no changes occurred, then skip to Box 8.

- ☐ The business (as preprinted) is no longer active at this location. We are a different company or a company new to this location. Date we opened for business: _____
- ☐ The business is the same; we have a new name.
- ☐ The location of the business has not changed. The local government modified the address.
- ☐ The business moved to a new location. ☐ I wish to apply for a new site-specific DEQ/EPA ID Number for the company's new location.

8. Has the ownership of this facility changed from what is preprinted in **Box 2** from the front of this form?

☐ **Yes** (If yes, Answer Questions 8a-8b) ☒ **No** (Skip to Box 9)

8a. What was the date of the ownership change? _____

8b. Are you completing this report for:

- ☐ The previous (preprinted name) company up to the time of closure? (Complete Box 9.)
- ☐ The current (new) company?
- ☐ Filing for the full calendar year?
- ☐ Filing for only that part of the year following purchase?

9. Indicate one of the following:

- ☒ I wish to keep the assigned DEQ/EPA Identification Number Active. (Skip to Box 10)
- ☐ I wish to cancel the assigned DEQ/EPA Identification Number because this facility does not generate or manage hazardous waste for the following reason (**Date must be provided**):
  - ☐ Closure of business (Date of Closure: _____)
  - ☐ Completion of a one-time cleanup and waste management activity (Date Completed: _____)
  - ☐ Change in business activity (Explain and Provide Date: _____)
  - ☐ Other (Explain and Provide Date: _____)

Note: The DEQ/EPA Identification Number is assigned to the physical location of the site and cannot be reassigned to a different location. The ID number is required for certain facilities such as: Hazardous Waste (HW) Transporters; Large Quantity HW Generators; Small Quantity HW Generators; Treatment, Storage, Disposal Facilities; HW Recycling Facilities; Marketers or Burners of HW Fuel; and facilities that engaged in some Used Oil or Universal Waste Activities. Conditionally Exempt Generators may also need an ID number for certain waste management activities.

10. ***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 1/18/02

Amos S. Kamerer — Plant Manager

Name (please print) Title

Mail completed form to:
Oregon DEQ
Land Quality Division
Attn: Hazardous Waste Forms Clerk
811 SW Sixth Avenue
Portland, OR 97204-1390

***Remember:** If you were a small or large quantity generator during <u>any</u> part of 2001, you must complete the Waste Generation & Management Answer Sheets and attach them to this form. If filing Answer Sheets electronically, an Electronic Certification must be attached.*

Questions: (503) 229-5470 or (800) 452-4011 or visit our Website at www.deq.state.or.us/wmc/hw/hwrptonlineforms.htm

Regist..tion Verification Report 2000

3 *978

1. DEQ ID No: **ORD027734359** Name: **Koppers Industries Inc**
   Location: **7540 NW ST HELENS RD**
   PORTLAND, OR 97210
   Site Contact Name: **Amos Kamerer** Site Contact Phone: **503 286-3681**
   Current information, if different from above:

Your Standard Industrial Classification (SIC) code is currently:
2865: Cyclic Crudes & Intermediates
Current code if different:

DEQ
State of Oregon Department of Environmental Quality

Your current employee count is listed as: 11 Please indicate the correct count if it has changed: 6

Verify the information in the left column, and make any corrections in the right column:

The owner of Koppers Industries Inc is:

2. Individual or Organization: **Koppers Industries Inc** Address: **436 7th Ave** **Pittsburg, PA 15219** Phone: **412 227 2883**	Individual or Organization: Address: Phone:

The owner of the property on which Koppers Industries Inc is located is:

3. Individual or Organization: **Northwest Natural Gas Co** Address: **220 NW 2nd Ave** **Portland, OR 97209** Phone: **503 226-4211**	Individual or Organization: Address: Phone:

The address for DEQ to send hazardous waste information to Koppers Industries Inc is:

4. Forms Contact: **Amos Kamerer** Organization: **Koppers Industries Inc** Address: **7540 NW St Helens Rd** **Portland, OR 97210-3663** Internet E-Mail: **Data missing, please update** Phone: **503 286-3681**	Forms Contact: Organization: Address: Internet E-Mail: kamereras@koppers.com Phone:

The address for DEQ to send hazardous waste fee invoices for Koppers Industries Inc is:

5. Fee Contact: **Amos Kamerer** Organization: **Koppers Industries Inc** Address: **7540 NW St Helens Rd** **Portland, OR 97210-3683** Phone: **503 286-3681**	Fee Contact: Organization: Address: Phone:

Hazardous waste generator status:

6. Koppers Industries Inc last reported as a Conditionally Exempt Generator on the 1999 Annual Report.
What was the generator status for Koppers Industries Inc in 2000, based on monthly generation records?

[ ] Large Quantity Generator [ ] Small Quantity Generator [X] Conditionally Exempt Generator

cc: T. Self, K-1800; M. Cilley, Stickney

01/02/2001

7. If the information for this facility has changed from what is preprinted in Box 1 from the front of this form, then check all that apply. If no changes occurred, then skip to Box 8.

- ☐ The business (as preprinted) is no longer active at this location. We are a different company or a company new to this location. Date we opened for business: _____
- ☐ The business is the same; we have a new name.
- ☐ The location of the business has not changed. The local government modified the address.
- ☐ The business moved to a new location. ☐ I wish to apply for a new site-specific DEQ/EPA ID Number for the company's new location.

8. Has the ownership of this facility changed from what is preprinted in Box 2 from the front of this form?

☐ **Yes** (If yes, Answer Questions 8a-8b) ☒ **No** (Skip to Box 9)

8a. What was the date of the ownership change? _____

8b. Are you completing this report for:

- ☐ The previous (preprinted name) company up to the time of closure? (Complete Box 9.)
- ☐ The current (new) company?
- ☐ Filing for the full calendar year?
- ☐ Filing for only that part of the year following purchase?

9. Indicate one of the following:

- ☒ I wish to keep the assigned DEQ/EPA Identification Number Active. (Skip to Box 10)
- ☐ I wish to cancel the assigned DEQ/EPA Identification Number because this facility does not generate or manage hazardous waste for the following reason (**Date must be provided**):
  - ☐ Closure of business (Date of Closure: _____)
  - ☐ Completion of a one-time cleanup and waste management activity (Date Completed: _____)
  - ☐ Change in business activity (Explain and Provide Date: _____)
  - ☐ Other (Explain and Provide Date: _____)

Note: The DEQ/EPA Identification Number is assigned to the physical location of the site and cannot be reassigned to a different location. The ID number is required for certain facilities such as: Hazardous Waste (HW) Transporters; Large Quantity HW Generators; Small Quantity HW Generators; Treatment, Storage, Disposal Facilities; HW Recycling Facilities; Marketers or Burners of HW Fuel; and facilities that engaged in some Used Oil or Universal Waste Activities. Conditionally Exempt Generators may also need an ID number for certain waste management activities.

10. ***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
	1/24/01
A. S. Kamerer	Plant Manager
Name (please print)	Title

Mail completed form to:
Oregon DEQ
Waste Prevention & Management Division
Attn: Hazardous Waste Forms Clerk
811 SW Sixth Avenue
Portland, OR 97204-1390

***Remember:** If you were a small or large quantity generator during any part of 2000, you must complete the Waste Generation & Management Answer Sheets and attach them to this form. If filing Answer Sheets electronically, an Electronic Certification must be attached.*

Questions: (503) 229-5470 or (800) 452-4011 or visit our Website at www.deq.state.or.us/wmc/hw/hwrptonlineforms.htm

Registration Verification Report '99

1. DEQ ID No: ORD027734359 Name: Koppers Industries Inc
Location: 7540 NW ST HELENS RD
PORTLAND, OR 97210
Site Contact: Amos Kamerer Site Phone: 503 286-3681

Current information, if different from above:

Your Standard Industrial Classification (SIC) code is currently listed as:
2865: Cyclic crudes & intermediates

Current code if different:

Your current employee count is listed as: 11 Please indicate the correct count if it has changed:

Verify the information in the left column, and make any corrections in the right column:

The owner of Koppers Industries Inc is:

2.	Owner: Data missing, please update Organization: Koppers Industries Inc Address: 436 7th Ave Pittsburg, PA 15219 Phone: 412 227 2883	Owner: Organization: Address: Phone:	

The owner of the property on which Koppers Industries Inc is located is:

3.	Owner Data missing, please update Organization: Northwest Natural Gas Co Address: 220 NW 2nd Ave Portland, OR 97209 Phone: 503 226-4211	Property Contact: Organization: Address: Phone:	

The address for DEQ to send hazardous waste information to Koppers Industries Inc is:

4.	Forms Contact: Amos Kamerer Organization: Koppers Industries Inc Address: 7540 NW St Helens Road Portland, OR 97210-3663 Internet E-Mail: Please update. Phone: 503 286-3681	Forms Contact: Organization: Address: Internet E-Mail: Phone:	

The address for DEQ to send hazardous waste fee invoices for Koppers Industries Inc is:

5.	Fee Contact: Amos Kamerer Organization: Koppers Industries Inc Address: 7540 NW St Helens Rd Portland, OR 97210-3663 Phone: 503 286-3681	Fee Contact: Organization: Address: Phone:	

Hazardous waste generator status:

6. Koppers Industries Inc last reported as a Conditionally Exempt Generator on the 1998 Annual Report.

What was the generator status for Koppers Industries Inc in 1999?

[ ] Large Quantity Generator [ ] Small Quantity Generator [x] Conditionally Exempt Generator

12/30/1999 * 989

7. If the information for this facility has changed from what is preprinted in Box 1 from the front of this form, then check all that apply. ☒ Not Applicable (Skip to Box 8)

- ☐ The business (as preprinted) is no longer active at this location. We are a different company or a company new to this location.
  Date we opened for business: _____
- ☐ The business is the same; we have a new name.
- ☐ The location of the business has not changed. The local government modified the address.
- ☐ The business moved to a new location. ☐ I wish to apply for a new site-specific DEQ/EPA ID Number for the company's new location.

8. Has the ownership of this facility changed from what is preprinted in Box 2 from the front of this form?
☐ Yes (If yes, Answer Questions 8a-8b) ☒ No (Skip to Box 9)

8a. What was the date of the ownership change? _____

8b. Are you completing this report for:
- ☐ The previous (preprinted name) company up to the time of closure? (Complete Box 9.)
- ☐ The current (new) company?
  - ☐ Filing for the full calendar year?
  - ☐ Filing for only that part of the year following purchase?

9. Has this facility stopped generating hazardous waste?
☐ Yes (Answer Questions 9a-9b) ☒ No (Skip to Box 10)

9a. What best describes the reason the facility stopped generating and managing hazardous waste?

- ☐ Closure of business (Date of Closure _____)
- ☐ Completion of a one-time cleanup and waste management activity (Date Completed _____)
- ☐ Change in business activity (Explain and Provide Date: _____
  _____)

9b. Indicate one of the following:
- ☐ I wish to keep the assigned DEQ/EPA Identification Number Active.
- ☐ I wish to cancel the assigned DEQ/EPA Identification Number (Cancellation Date _____)

Note: The DEQ/EPA Identification Number is assigned to the physical location of the site and cannot be reassigned to a different location. The ID number is required for certain facilities such as: Hazardous Waste (HW) Transporters; Large Quantity HW Generators; Small Quantity HW Generators; Treatment, Storage, Disposal Facilities; HW Recycling Facilities; Marketers or Burners of HW Fuel; and facilities that engaged in some Used Oil or Universal Waste Activities. Conditionally Exempt Generators may also need an ID number for certain waste management activities.

10. *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	March 8, 2000 Date
Amos S. Kamerer Name (please print)	Plant Manager Title

Mail completed form to:
Oregon DEQ
Waste Management & Cleanup Division
Attn: Hazardous Waste Forms Clerk
811 SW Sixth Avenue
Portland, OR 97204-1390

***Remember:** If you were a small or large quantity generator during any part of 1999, you must complete the Waste Generation & Management Answer Sheets and attach them to this form.*

cc: T. Self, K-1800; M. Cilley, Stickney

Registration Verification Report '98

DEQ ID No: ORD027734359 Name: Koppers Industries Inc

Location: 7540 NW ST HELENS RD
PORTLAND, OR 97210

Current name if different from above: _____

Your Standard Industrial Classification (SIC) code is currently listed as:
2865: Cyclic crudes & intermediates

Current code if different: _____

Your current employee count is listed as 10. Please indicate the correct count if it has changed: 11

Verify the information in the left column, and make any corrections in the right column:

The owner of Koppers Industries Inc is:

Organization: Koppers Industries Inc	Organization:
Address: 436 7th Ave	Address:
Pittsburg, PA 15219	
Phone: 412 227 2883	Phone:

The owner of the property on which Koppers Industries Inc is located is:

Organization: Northwest Natural Gas Co	Organization:
Address: 220 NW 2nd Ave	Address:
Portland, OR 97209	
Phone: 503 226-4211	Phone:

The address for DEQ to send hazardous waste information to Koppers Industries Inc is:

Organization: Koppers Industries Inc	Organization:
Address: 7540 NW St Helens Road	Address:
Portland, OR 97210-3663	

The address for DEQ to send hazardous waste fee invoices for Koppers Industries Inc is:

Organization: Koppers Industries Inc	Organization:
Address: 7540 NW St Helens Rd	Address:
Portland, OR 97210-3663	

The contact names and phone numbers for Koppers Industries Inc are:

Fees:	Amos Kamerer	503 286-3681	Fees:	
Site visits:	Amos Kamerer	503 286-3681	Site visits:	
Forms:	Amos Kamerer	503 286-3681	Forms:	

Hazardous waste generator status:

Koppers Industries Inc last reported as a Conditionally Exempt Generator on the 1997 Annual Report

What was the generator status for Koppers Industries Inc in 1998?

☐ Large Quantity Generator ☐ Small Quantity Generator ☒ Conditionally Exempt Generator

01/14/1999

1. Has the ownership of this facility changed from what is indicated on the front of this form?
☐ Yes ☒ No (If no, go to question 2)

1a. What was the date of the ownership change? _____

1b. Did the management of this facility change with the ownership?
☐ New management ☐ Same management

1c. Which best describes the conditions of the ownership change?
☐ Sale of business to new owner
☐ Corporate merger
☐ Separation from parent company
☐ Other _____

1d. Indicate one of the following:
☐ I represent the current owner of this facility
☐ I represent the previous owner of this facility

2. Has this facility stopped doing business? ☐ Yes ☒ No (If no, go to question 3)

2a. What was the date of closure? _____

If closure was due to an ownership change, be sure to answer question 1.

3. Has this facility stopped generating hazardous waste? ☐ Yes ☒ No
(Mark "No" if you are still a conditionally exempt small quantity generator.)

3a. What was the date the facility stopped generating hazardous waste? _____

3b. What best describes the reason the facility stopped generating hazardous waste?
☐ Closure (Complete question 2)
☐ Completion of a one-time hazardous waste generation activity
☐ Change in production process
☐ Elimination of hazardous materials/chemicals
☐ Change in business activity
☐ Other _____

Remember: If you were a small or large quantity generator during any part of 1998, you must complete the hazardous waste reporting forms.

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	FEBRUARY 4, 1999 Date
AMOS S. KAMERER Name (please print)	PLANT MANAGER Title

Reason for Not Preparing Pounds Report

This form is for reporting year 2003. Refer to the fact sheet "Oregon's Toxics Use Reduction and Hazardous Waste Reduction (TUHWR) Act", TUHWR Questions and Answers, and to the TUHWR Act and regulations to clarify when not to prepare a Pounds Report.

DEQ
State of Oregon Department of Environmental Quality

Toxics Use/Waste Reduction Assistance Program
811 SW 6th Avenue
Portland, OR 97204
Phone: (503)229-5181
Fax: (503)229-6977
Contact: David Livengood
www.deq.state.or.us/wmc/tuwrap

Name of Company: KOPPERS INC

Physical Address: 7540 NW ST HELENS RD, PORTLAND, OR 97210

Mailing Address: KOPPERS INC , 7540 NW SAINT HELENS ROAD, PORTLAND, OR 97210-3663

Contact Person: T. J. Turner Title: General Foreman

Phone Number: (503) 286-3681 E-Mail Address: turnertj@koppers.com

TRI ID#: 97210KPPRS7540N DEQ ID#: ORD027734359

I do not prepare a Pounds Report under the Toxics Use Reduction and Hazardous Waste Reduction (TUHWR) Act since the facility: (check one box)

- ☐ Manufactures the toxic substance as a product.
- ☒ Generates the hazardous waste solely as a result of remedial cleanup activities.

I certify the above information is correct:

Name of Senior Manager or Business Owner: T. J. Turner

Signature: T J Turner Date: 8-30-04

Return form by September 1, 2004 to:

DEQ – HWPPD TUWRAP
811 SW Sixth Avenue
Portland, OR 97204

cc: T. Self
FAX: 8/30/04

Notice of Plan Completion

This form is for reporting year 2003. Refer to the fact sheet "Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act", TUHWR Questions and Answers, and to the Act and regulations for information on planning requirements.

DEQ
State of Oregon Department of Environmental Quality

Name of Company: KOPPERS INC

Physical Address: 7540 NW ST HELENS RD, PORTLAND, OR 97210

Mailing Address: KOPPERS INC , 7540 NW SAINT HELENS ROAD, PORTLAND, OR 97210-3663

Contact Person: T. J. Turner Title: General Foreman

Phone Number: (503) 286-3681 E-Mail Address: turnertj@koppers.com

TRI ID#: 97210KPPRS7540N DEQ ID#: ORD027734359

Toxics Use/Waste Reduction Assistance Program
811 SW 6th Avenue
Portland, OR 97204
Phone: (503)229-5181
Fax: (503)229-6977
Contact: David Livengood
www.deq.state.or.us/wmc/tuwrap

I certify that the facility identified on this form has completed a Reduction Plan, as required under Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act, and that this Plan is kept on site.

Name of Senior Manager or Business Owner: T. J. Turner

Signature: T J Turner Date 8-30-04

Return form by September 1, 2004 to: DEQ - HWPPD - TU/WRAP
811 SW Sixth Avenue
Portland, OR 97204

cc: T. Self
FAX: 8/30/04

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

August 5, 2004

HW:TURHWFC
Hazardous Waste Coordinator
Koppers Inc
7540 NW Saint Helens Road
Portland, OR, 97210-3663

AUG 13 2004

RE: Report(s) due September 1, 2004

Oregon's 1989 Toxics Use Reduction and Hazardous Waste Reduction (TUHWR) Act was one of the first State laws to promote pollution prevention through facility-wide planning. Since its passage, businesses throughout the State have successfully employed the law's planning requirements to reduce their use of toxic chemicals and generation of hazardous wastes. We are writing to inform you that our records indicate your facility is subject to TUHWR Act's planning and/or reporting requirements.

The planning and reporting requirements apply to certain businesses, industrial facilities, government agencies and institutions categorized as:

- **Small Quantity Generators** are facilities that generate between 220 and 2,200 pounds of hazardous waste in a calendar month. These facilities must prepare a *Reduction Plan*, submit to DEQ a *Notice of Plan Completion*, and keep them on site.

- **Large Quantity Generators** are facilities that generate more than 2,200 pounds of hazardous waste or more than 2.2 pounds of acutely hazardous waste in a calendar month. These facilities must prepare a *Reduction Plan*, submit to DEQ a both a *Notice of Plan Completion* and a *Pounds Report,* and keep them on site

- **Large Users** - users of toxic chemicals who are required to report under the federal Toxics Release Inventory program (Section 313 of the Emergency Planning and Community Right-to-Know Act). These facilities must prepare a *Reduction Plan*, submit to DEQ both a *Notice of Plan Completion* and a *Pounds Report*, and keep them on site.

If your facility is in one of the above categories, you must send DEQ the associated form(s) applicable to your specific category. The planning or reporting requirements may not apply to some facilities, and you may be able to claim an exemption. If you believe your facility is not subject to the TUHWR requirements, please complete the *Reason for Not Preparing Plan* form or the *Reason for Not Preparing Pounds Report.* This information will help us avoid sending

cc: T. Self

DEQ-DC1

you unnecessary paperwork in the future. The due date for returning these forms to DEQ is: **September 1, 2004.**

Please submit your form(s) to: **DEQ HWPPD TUWRAP**
811 SW Sixth Ave
Portland, OR 97204

Please check your mailing address. If it is incorrect, please make corrections on the form(s) you return to DEQ.

If you would like to learn more about the TUHWR exemptions, planning and reporting requirements, or how to request free technical assistance, please read the enclosed fact sheet If you want to obtain additional copies of forms and more specific information, please visit DEQ's web site at www.deq.state.or.us/wmc/tuwrap.html and click on the TUHWR Reporting Fact Sheet & Forms link. If you believe that our records are incorrect or just have questions about the requirements, please contact your nearest technical assistance provider or call me at 503-229-5181 or e-mail livengood.david@deq.state.or.us . Thank you in advance for helping us implement the TUHWR Program.

Sincerely,

David Livengood
Toxics Use & Waste Reduction Assistance Program
Coordinator

Enclosures
1. Reporting Forms: NPC APR
2. *Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act Fact Sheet*

DEQ-DC1

Fact Sheet

Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act

State of Oregon
Department of Environmental Quality

Toxics Use/Waste Reduction Assistance Program
811 SW 6th Avenue
Portland, OR 97204
Phone: (503) 229-5181
Fax: (503) 229-6977
Contact: David Livengood
www.deq.state.or.us/wmc/tuwrap.html

What does the Act do?

Oregon's Toxics Use Reduction and Hazardous Waste Reduction (TUHWR) Act of 1989 was one of the first laws in the nation to mandate pollution prevention planning. The Act is a comprehensive approach to reducing or eliminating toxic substances use and hazardous wastes generation.

What does the Act require?

By requiring certain facilities to develop a *TUHWR Reduction Plan and* monitor their progress, the Act encourages Oregon facilities to continuously improve their operations. Since the adoption of the Act, numerous facilities throughout the state have reduced the use of toxic chemicals and the generation of hazardous wastes. For examples of success stories, see DEQ Internet site at: http://www.deq.state.or.us/wmc/tuwrap/success.html

Facilities that must comply with the TUHWR Act

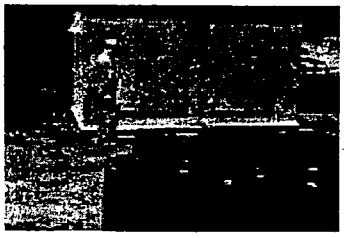
The Act's requirements affect three groups:

- *Large Toxics Users*: Users of toxic chemicals who are required to prepare a Form R or Form A under the federal Toxics Release Inventory program (Superfund Amendments and Reauthorization Act, Title III, Section 313).
- *Large Quantity Generators*: Facilities that generate more than 2,200 pound of hazardous waste or more than 2.2 pounds of acutely hazardous waste in a calendar month.
- *Small Quantity Generators*: Facilities that generate between 220 and 2,200 pounds of hazardous waste in a calendar month.

Exemptions & Special Circumstances

There are exemptions and circumstances that, if applicable a facility would not have to comply with the TUHWR Law. Those apply if a facility:

- *Manufactures a toxic substance as a product for sale;*
- *Generates hazardous waste solely as a result of remediation (i.e., environmental cleanup activities;*
- *Generates hazardous waste due to a one-time cleanout event;*



- *Instituted an environmental management system (EMS);*
- *Implemented a consumer education program to increase demand for less toxic products;*
- *Recently changed ownership and the Reduction Plan prepared by a prior owner is still valid; and*
- *Has moved outside of Oregon or is out of business.*

If you believe your facility can claim an exemption or special circumstance, please verify the exemption and get the required notification form from your nearest technical assistance provider listed at the end of this fact sheet.

Toxics Use & Hazardous Waste Reduction Plan

Large toxics user, large quantity generator or small quantity generator must prepare a *TUHWR Reduction Plan*, unless your facility has an exemption. The purpose of a *Plan* is to help your facility reduce its toxic chemicals use and, as a second priority, its hazardous waste generation. The *Plan* encourages you to review your processes and procedures. The *Plan* should cover a five- to ten-year planning cycle.

The TUHWR Plan should include:

- Policy statement;
- Plan scope and objectives;
- Reduction evaluations;
- Employee awareness and training program;
- Institutionalization – an integration into management practices and procedures; and
- Implementation plan.

Your *Reduction Plan* is not public information and should remain at your facility. However, your *Notice of Plan Completion* is public information.

Last Updated: 7/27/04
By: David Livengood

Koppers019059

Chemicals and hazardous wastes to include in a TUHWR Plan

As part of your *Plan*, a facility must evaluate options to reduce its toxics use and hazardous wastes generation that meet the following quantity thresholds:

- Any toxic substance used in quantities greater than 10,000 pounds a year;
- Any toxic substance used in quantities in excess of 1,000 pounds a year that constitutes 10% or more of the total toxic substances used; and
- For large and small quantity generators, any hazardous waste representing 10% or more by weight of the cumulative hazardous waste stream generated per year.

Toxic substances you must evaluate in the *Plan* are those that your facility reports to EPA though its Toxics Release Inventory (TRI) program; see www.epa.gov/tri/chemical.htm for the current list. Please note that you do not need to evaluate the TRI persistent, bioaccumulative, and toxic (PBT) chemicals this year.

The *hazardous wastes* you must evaluate are the D, F, K, P, and U listed and characteristic wastes under the federal hazardous waste regulations. You can find a description of the waste codes on pages 55 to 69 within the reference document at www.deq.state.or.us/wmc/documents/hwrpt39-74.pdf.

Reporting

After completing a *TUHWR Reduction Plan*, facilities must submit a ***Notice of Plan Completion*** provided by DEQ.

Large toxics user (LTU) or a large quantity generator (LQG) must prepare and keep on site an *Annual Progress Report*. The *Annual Progress Report* is not public information and should remain at the facility. LTUs and LQGs must also annually submit a Pounds Report on a form provided by DEQ. The information you submit on the *Pounds Report* is public information. If you are a small quantity generator (SQG), you do not need to submit a *Pounds Report*.

For more details about the *Annual Progress Report* or *Pounds Report*, please refer to the *TUHWR Questions & Answers* or call a DEQ technical assistance provider.

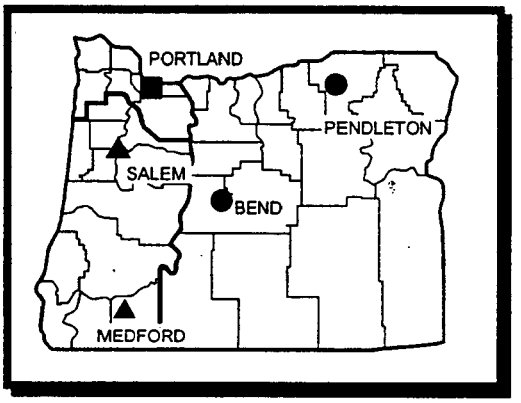
Technical Assistance Resources

For more details about the TUHWR requirements, refer to the Act or the *TUHWR Questions & Answers at* http://www.deq.state.or.us/wmc/tuwrap/tuwrap-reportsFAQ.pdf. The statute can be found in Oregon Revised Statutes 465.003 to 465.037.

The Act's regulations can be found in Oregon Administrative Rules 340-135-0000 to 340-135-0110 or www.deq.state.or.us/wmc/tuwrap.html.

DEQ's Toxics Use & Waste Reduction Assistance Program (TUWRAP) provides free technical assistance. TUWRAP staff statewide can help your facility:

- Reduce its toxic substance use and hazardous waste generation;
- Obtain compliance assistance or provide other services (e.g., training);
- Complete or update its *Reduction Plan* or assist with DEQ reporting; or
- Provide TUHWR forms, or you can download them from TUWRAP's web page at www.deq.state.or.us/wmc/tuwrap.html



Eastern Region:

- ● Bend: Jeannette Freeman, (541) 388-6146, x229
- ● Pendleton: Dan Lobato, (541) 278-4606

Northwest Region:

- ■ Portland: David Kunz, (503) 229-5336
- ■ Portland: Rich Grant, (503) 229-5560
- ■ Portland: Peter Anderson, (503) 229-5564

Western Region:

- ▲ Medford: Lisa Freeman, (541) 776-6010, x239
- ▲ Salem: Bart Collinsworth, (503) 378-8240, x258

If you have specific questions about the Toxics Use & Hazardous Waste Reduction Program, please contact David Livengood, TUWRAP Coordinator, in Portland at (503) 229-5181 or (800) 452-4011 within Oregon.

Koppers019060

Reason for Not Preparing Pounds Report

This form is for reporting year 2002. Refer to the fact sheet "Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act" and to the Act and regulations for clarification on when the following reasons for not preparing a Pounds Report may apply.

State of Oregon
Department of Environmental Quality

Toxics Use/Waste Reduction Assistance Program
811 SW 6th Avenue
Portland, OR 97204
Phone: (503) 229-6015
Fax: (503) 229-6977
Contact: Elaine Glendening
www.deq.state.or.us/wmc/tuwrap.html

Name of Company: Koppers Inc. SIC code(s): 2865

Physical Address: 7540 NW saint Helens Road, Portland, Oregon

Mailing Address: 7540 NW Saint Helens Road, Portland, Oregon 97210-3663

Contact Person: Amos S. Kamerer Title: Plant Manager

Phone number: 503-286-3681 E-mail address: kamereras@koppers.com

TRI ID #: 97210KPPRS7540N DEQ ID #: ORD02773459

I have not prepared a Pounds Report under the Toxics Use Reduction and Hazardous Waste Reduction Act for the following reason (check one box):

☒ I was a Large Quantity Generator but did not use any toxic substances in excess of the planning and reporting thresholds. I was not a Large User.

☐ My facility has moved out of state or gone out of business.

My signature below certifies that the information above is correct.

Name of Senior Manager or Business Owner: Amos S. Kamerer

Signature: Date: 10/3/03

Send this form by October 20, 2003 to: DEQ – HWPPD-TU/WRAP
811 SW Sixth Avenue
Portland, OR 97204

Post-it® Fax Note 7671	Date 10/3/03	# of pages ▶ 2
To T. Self	From Amos	
Co./Dept.	for your Notes	
Phone #	Phone #	
Fax #	Fax #	

Last Updated: 5/15/03
By: E. Glendening

Notice of Plan Completion

27

This form is for reporting year 2002. Refer to the fact sheet "Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act" and to the Act and regulations for information on planning requirements.

State of Oregon
Department of Environmental Quality

Toxics Use/Waste Reduction Assistance Program
811 SW 6th Avenue
Portland, OR 97204
Phone: (503)229-6015
Fax: (503)229-6977
Contact: Elaine Glendening

Name of Company: KOPPERS INDUSTRIES INC

SIC Code(s): 2865: CYCLIC CRUDES & INTERMEDIATES

Physical Address: 7540 NW ST HELENS RD, PORTLAND, OR 97210

Mailing Address: 7540 NW ST HELENS RD, PORTLAND, OR 97210-3663

Contact Person: AMOS S KAMERER

Title: PLANT MANAGER

Phone Number: (503) 286-3681

E-Mail Address: Unknown

TRI ID#: 97210KPPRS7540N

DEQ ID#: ORD027734359

I certify that the business identified on this form has completed a Reduction Plan, as required under Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act, and that this Plan is kept on site.

Name of Senior Manager or Business Owner: Amos S. Kamerer

Signature: _____ Date 10/3/03

Send this form by October 20, 2003 to: DEQ - HWPPD - TU/WRAP
811 SW Sixth Avenue
Portland, OR 97204

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

Dlqnpc 26

September 19, 2003

Traci.
Please call to discuss —
9/23/03 Anna

DEQ:TUR:NPCDlq: 143615
Koppers Industries Inc
7540 NW St Helens Rd
Portland, OR 97210-3663

RE: Requirement to Submit a Notice of Plan Completion by October 20, 2003

Oregon's 1989 Toxics Use Reduction and Hazardous Waste Reduction Act (TURHWRA) was one of the first State laws to promote pollution prevention through facility-wide planning. Since its passage, businesses throughout the State have successfully employed the law's planning requirements to reduce their use of toxic chemicals and to reduce generation of hazardous wastes.

We are writing to inform you that our records indicate your facility is subject to TURHWRA planning requirements and therefore must complete a Reduction Plan. The deadline for developing your Plan has passed. You are required to notify DEQ of plan completion by October 20, 2003.

Please submit the "Notice of Plan Completion" (NPC) form that is enclosed to:

DEQ – HWPPD – TU/WRAP
811 SW Sixth Ave
Portland, OR 97204

Please keep a copy of your Plan and NPC form on site.

The law requires that certain businesses, industrial facilities, government agencies, and institutions review their practices and processes that use toxic substances and generate hazardous wastes; prepare facility-wide Reduction Plans; and report annually on the progress they have made in implementing their plans. "Toxics Users" falling into one or more of the following categories are required to develop a Reduction Plan:

- **Small Quantity Generators** - persons who generate between 220 and 2,200 pounds of hazardous waste in a calendar month.
- **Large Quantity Generators** - persons who generate more than 2,200 pounds of hazardous waste or more than 2.2 pounds of acutely hazardous waste in a calendar month.

RECEIVED
SEP 22 2003
KOPPERS INDS, INC
PORTLAND OR

DEQ-DC1

- **Large Users** - users of toxic chemicals who are required to report under the federal Toxics Release Inventory program (Section 313 of the Emergency Planning and Community Right-to-Know Act).

Some facilities may not be subject to planning requirements or may be able to claim an exemption. To find out more, please see the enclosed fact sheet "Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act." If you are not subject to Plan requirements or are claiming an exemption, please complete the form "Reason for Not Preparing Plan" that is on the reverse side of the NPC form. This information will help us avoid sending you unnecessary paperwork in the future.

Note: Please check the information on your mailing label. If it is incorrect, please make corrections on your form.

To obtain further information on TURHWRA requirements or to receive technical assistance, please see the enclosed fact sheet. You can obtain copies of forms and other information on our Web site: www.deq.state.or.us/wmc/tuwrap.html.

If you believe that our records are incorrect or have questions about the requirements, please contact me at 503-229-6015 or at glendening.elaine@deq.state.or.us

Sincerely,

Elaine Glendening

Elaine Glendening
Toxics Use/Waste Reduction Assistance Coordinator

Enclosures:Form:

- Notice of Plan Completion
- Form: Reason for Not Preparing Plan
- Factsheet: Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act

DEQ-DC1

Fact Sheet

Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act

State of Oregon
Department of Environmental Quality

Toxics Use/Waste Reduction Assistance Program
811 SW 6th Avenue
Portland, OR 97204
Phone: (503) 229-6015
Fax: (503) 229-6977
Contact: Elaine Glendening
www.deq.state.or.us/wmc/tuwrap.html

What does the Act do?

Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act of 1989 was one of the first laws in the nation to mandate pollution prevention planning. It was developed with the support of both the business and environmental communities.

The Act takes a comprehensive approach to reducing pollution at its source by encouraging Oregon's businesses and institutions to make facility-wide changes that reduce or eliminate the use of toxic substances and generation of hazardous wastes. By requiring affected parties to develop Reduction Plans and monitor their progress, the Act also encourages Oregon facilities to continuously improve their operations. Since the adoption of the Act, facilities throughout the state have reduced the use of toxic chemicals and the generation of hazardous wastes.

Do the Act's requirements affect me?

The Act's requirements affect three groups of *"Toxics Users:"*

- *Large Users*: users of toxic chemicals who are required to prepare a Form R or Form A under the federal Toxics Release Inventory program (Superfund Amendments and Reauthorization Act, Title III, Section 313).
- *Large Quantity Generators*: facilities that generate more than 2,200 pound of hazardous waste or more than 2.2 pounds of acutely hazardous waste in a calendar month.
- *Small Quantity Generators*: facilities that generate between 220 and 2,200 pounds of hazardous waste in a calendar month.

Do I need to prepare a Reduction Plan? What is its purpose?

If your facility is a Toxics User (as defined above), you are required to develop a ***Reduction Plan***. The purpose of a Reduction Plan is to help you reduce your use of toxic chemicals and, as a second priority, reduce your generation of hazardous waste. Preparing the Plan encourages you to review your processes and procedures and make a thoughtful search for reduction methods that you can implement. The Plan should cover a five- to ten-year time frame.

What elements should my Plan include?

Policy statement. This policy articulates support by your facility's senior management for the Reduction Plan and a commitment to implement it.

Plan scope and objectives. Your Plan should identify and evaluate reduction opportunities and involve employees in reduction awareness efforts.

Reduction evaluations. This is the core part of your Plan. You should first collect and examine data on the types and amounts of toxic substances you used and the hazardous wastes you generated. The next step is to determine what processes used the toxic chemicals and generated the wastes. Having completed this status review, you can then identify potential reduction or recycling methods. Your Plan should document the rationale for the reduction options you considered:

- Explain why any of the options considered but not implemented were not technically or economically feasible.
- Show that toxics use reduction options were given priority over hazardous waste reduction options where feasible.
- Point out potential cross-media impacts of options (e.g., shifts in pollutants from sanitary sewer to air emissions, with consequences for human health).

Employee awareness and training program. While owners and managers set the priority and tone for reduction efforts, it generally takes a team effort to make it happen. Employees should be involved in reduction planning and implementation to the maximum extent feasible. This part of the Plan describes how you are involving employees and raising their awareness.

Institutionalization. You should describe how the Plan is being incorporated in management practices and procedures to ensure that reduction planning is an ongoing effort.

Implementation plan. In this part of the Plan, you describe feasible reduction options and provide details (e.g., tasks and dates) on how the options you selected will be implemented.

Last Updated:9/15/03
By: Elaine Glendening

Koppers019065

After completing a Reduction Plan, you must submit a ***Notice of Plan Completion*** (a form provided by DEQ). This form is due by September 1 following the calendar year in which your facility became a Toxics User.

Your Reduction Plan is not public information and should remain at your facility. However, your Notice of Plan Completion is public information.

Which chemicals and hazardous wastes should I include in my Plan?

As part of your Plan, you must evaluate opportunities for reducing the use of toxic substances and the generation of hazardous wastes meeting the following quantity thresholds:

- Any toxic substance used in quantities greater than 10,000 pounds a year;
- Any toxic substance used in quantities in excess of 1,000 pounds a year that constitutes 10% or more of the total toxic substances used; and
- For Large and Small Quantity Generators, any hazardous waste representing 10% or more by weight of the cumulative hazardous waste stream generated per year.

Toxics use means the use or production of a toxic substance. In practice, this can include chemicals that are used as inputs to a production process, created as byproducts during production, released from the production process, or generated as products for sale.

A *toxic substance* is one that is poisonous or harmful to plant or animal life. The toxic substances you must evaluate in the Plan are the chemicals and chemical categories reportable to the Toxics Release Inventory. On the U.S. EPA's Web site, go to www.epa.gov/tri/chemical.htm for the current list. Please note that the new TRI persistent, bioaccumulative, and toxic (PBT) chemicals do not need to be evaluated.

The *hazardous wastes* to be evaluated are the D, F, K, P, and U listed and characteristic wastes under the federal Resource Conservation and Recovery Act. On DEQ's Web site, go to www.deq.state.or.us/wmc/documents/hwrpt39-74.pdf for descriptions of the waste codes.

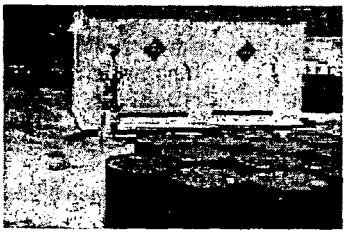
Do I need to prepare an Annual Progress Report and Pounds Report? What is their purpose?

If your facility is a Large User or a Large Quantity Generator, you are required to prepare an ***Annual Progress Report*** and a ***Pounds Report***. If you are a Small Quantity Generator, you do not need to prepare either one.

You complete the ***Annual Progress Report*** to update your Plan (if necessary), estimate the quantities of the toxic substances and hazardous wastes evaluated in your Plan, and analyze your progress in reducing them. You may provide additional descriptive detail on reduction progress and impediments if desired. If, during the calendar year, you use new chemicals or generate new hazardous wastes that meet the quantity thresholds for planning (presented above), you must also include them in your Annual Progress Report.

You complete the ***Pounds Report*** (a form provided by DEQ) to report annually to DEQ on the quantities of toxic substances you used, based on information from your Annual Progress Report. You must submit this information by September 1 of each year. If you were a Large Quantity Generator and did not meet the quantity thresholds for toxic substance planning and reporting (presented above), you can check the appropriate box on the "Reason for Not Preparing Pounds Report" form. If you succeeded in eliminating use of a toxic chemical that you had previously reported, you can highlight this success by entering "0" pounds and indicating how the chemical was eliminated. Please note that you do not need to report quantities of hazardous waste generated on the Pounds Report form, since this information is already reported to DEQ in the Annual Hazardous Waste Report.

Your Annual Progress Report is not public information and should remain at your facility. The information you submit on the Pounds Report is public information.



In what situations would I be excluded from the Act's requirements?

There are several situations in which your facility would not need to satisfy any requirements of the Toxics Use Reduction and Hazardous Waste Reduction Act:

Koppers019066

- You manufactured a toxic substance as a product for sale.
- You generated hazardous waste solely as a result of remediation activities (i.e., environmental cleanup).
- You were not a Toxics User (as defined above).

When can I obtain an exemption from the Act's requirements?

If you generated hazardous waste due to a one-time clean-out event, you may be able to claim an exemption. You can claim this exemption if you are not a Large User and your hazardous waste generator status changed from Conditionally-Exempt Generator to Large or Small Quantity Generator solely due to a one-time generation event such as a storeroom cleanout or disposal of expired chemical inventories.

You can claim this exemption by checking the appropriate box on the "***Reason for Not Preparing Plan***" Form. DEQ staff will contact you to verify your status and then prepare an acknowledgement letter. If you meet the terms for this exemption, you will not have to prepare a Reduction Plan, Annual Progress Report, or Pounds Report. Please note that these one-time generation events must not occur more frequently than every five years.

If you implemented an Environmental Management System (EMS), you may be able to claim an exemption. You may claim an EMS exemption provided that your EMS:

- follows a continual cycle of planning, implementation, review, and improvement;
- documents the evaluation of reduction opportunities for toxic substances used and hazardous wastes generated at the facility; and
- includes a means to implement identified reduction opportunities whenever technically and economically practicable.

Alternatively, you may claim this exemption by incorporating the standards outlined above as part of an EMS that has received independent registration for the ISO 14001 standard.

You can claim this exemption by checking the appropriate box on the "Reason for Not Preparing Plan" Form. DEQ staff will contact you to verify your status and then prepare an acknowledgement letter. If you meet the terms for this exemption, you will not need to prepare a Reduction Plan or an Annual Progress Report. However, you will need to submit a Pounds Report annually to maintain the exemption.

If you implemented a consumer education program to increase demand for less toxic products, you can apply for an exemption. If you are a large user and you have implemented an education program designed to increase demand for a consumer product manufactured at your facility that is nontoxic or less toxic than similar products you currently sell, you may apply for this exemption. To qualify for the exemption, you must have:

- implemented all technically and economically feasible toxics use reduction and hazardous waste reduction opportunities;
- determined that further reductions can only be accomplished by producing less product; and
- demonstrated that the products being promoted use or release smaller numbers or amounts of toxic substances than equivalent manufactured products.

You can apply to DEQ to receive approval for this exemption by checking the box on the "Reason for Not Preparing Plan" form. If you meet the terms for this exemption, you will not need to prepare a Reduction Plan or an Annual Progress Report. However, you will need to submit a Pounds Report annually to maintain the exemption.

In what other special situations would I not have to satisfy the Act's requirements?

If your facility recently changed ownership and the Plan prepared by a prior owner is still valid, you do not need to prepare a new Plan. When a facility that is subject to the Act's requirements changes ownership, DEQ asks the new owner to prepare a Reduction Plan. This informs the new owner of the Act's requirements and helps ensure that any significant changes in management commitment, facility operations, or toxics/waste reduction activities are captured in a new Plan. However, if changes are minor, a Plan prepared by a prior owner of the facility may still

Koppers019067

be valid. You can amend the prior Plan as necessary and check the appropriate box on the back of the "Reason for Not Preparing Plan" form. Please note that you may still need to prepare a Pounds Report, depending on your status.

If your facility has moved out of state or gone out of business, you do not need to satisfy the Act's requirements. Please check the appropriate box on the "Reason for Not Preparing Plan" form or "Reason for Not Preparing Pounds Report" form to let us know about your change in facility status.

Will DEQ review my Plan and Annual Progress Reports?

DEQ staff may review your Plan and Annual Progress Reports during a technical assistance visit or inspection. DEQ staff can assist you in meeting the planning and reporting requirements and in correcting any deficiencies.

Where can I obtain the statute and regulations?

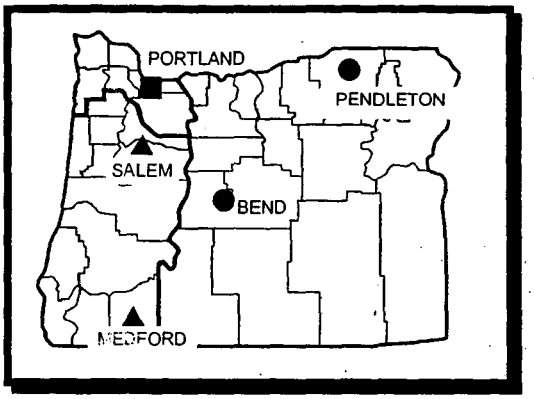
This fact sheet summarizes the Act's requirements; you should review the statute and regulations for more details. The statute can be found in Oregon Revised Statutes 465.003 to 465.037. The Act's regulations can be found in Oregon Administrative Rules 340-135-0000 to 340-135-0110. Links to both can be found at www.deq.state.or.us/wmc/tuwrap.html.

How can I obtain technical assistance or other information?

DEQ's Toxics Use/Waste Reduction Assistance Program (TU/WRAP) provides free and confidential technical assistance to businesses throughout Oregon. It plays a dual role, helping businesses reduce their use of toxic substances and generation of hazardous waste while also assisting them in coming into compliance with the Act's regulations and hazardous waste regulations. TU/WRAP staff statewide provide on-site consultations, conduct training sessions, respond to facility inquiries, and implement other elements of the Program.

Please contact the TU/WRAP technical assistance provider closest to you for help with:

- reducing your facility's toxic substance use and hazardous waste generation;
- completing your Reduction Plan, Annual Progress Report, and Pounds Report; and
- obtaining an exemption from the Act's requirements.



Eastern Region:

- ● Bend: Jeff Ingalls, (541) 388-6146, x238
- ● Pendleton: Dan Lobato, (541) 278-4606

Northwest Region:

- ■ Portland: Jay Collins, (503) 229-5165;

Western Region:

- ▲ Medford: Wayne Kauzlarich, (541) 776-6010, x227
- ▲ Salem: Eric Clark, (503) 378-8240, x253; Bart Collinsworth, (503) 378-8240, x258

For copies of forms or other Toxics Use Reduction and Hazardous Waste Reduction Act information, visit our Web site at www.deq.state.or.us/wmc/tuwrap.html or contact Elaine Glendening at (503) 229-6015.

Koppers019068

Author: Amos Kamerer at PITT
Date: 12/24/99 6:18 AM
Priority: Normal
TO: Traci Self, Mark Cilley at CHIMAIN
CC: Jim Dietz
Subject: ODEQ - TUR

Under separate cover I am faxing you copies of a letter from Jay Collins, approving our exemption from the TUR requirements, with stipulations.

My review produced the following comments or questions:

* In his recital, paragraph # 2, he says the pencil pitch is unloaded into a large "open" storage area; I realize that the buildings are large open areas but they are covered, thus, do we want this changed, so that the file is correct?

* Paragraph # 3, the storm water is not discharged to the sanitary sewer.

* In the stipulation, what are your interruptions of the last sentence?

Obviously, I want to respond and thank them for this consideration and thoug that I could correct these "errors", so that the information in their files correct. Let me know what you think. Thanks.

Happy Holidays,

Amos

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

December 16, 1999

MR AMOS KAMERER
KOPPERS INDUSTRIES INC
7540 NW ST HELENS ROAD
PORTLAND OR 97210-3663

Re: HW – TUR Plan Waiver Approval

Dear Mr. Kamerer:

Thank you for your letter of August 31, 1999, explaining why an exemption from Toxics Use Reduction (TUR) Plan requirements makes sense for Koppers Industries in Portland. In this letter and during our site visit on December 1, 1999, you pointed out that your facility is brought into TUR planning solely due to the use of heavy oil as an additive to the production process.

Pencil pitch, which is a solid form of coal tar pitch, is transported to the facility by truck. The raw material is unloaded into a large open storage area and conveyed over to tanks for heating. Then, heavy oil is added for softening point adjustments to bring the coal tar pitch to industry specifications. The liquid coal tar binder is sold to the primary aluminum industry.

Some volatile material is lost in changing the pencil pitch from the solid to the liquid form. However, we learned that this loss is unlikely to have a significant effect on the amount of heavy oil used to bring the coal tar pitch up to specification. Handling pencil pitch in its solid form creates a fine particulate, which falls on the ground. Besides the potential for environmental impacts, additional manpower and stormwater treatment is necessary because of this. Storm water is collected and sampled, then discharged to sanitary sewer. Koppers does remove solids from its catch basins and pitch found collecting on the property, returning them to the process.

Technology has progressed and it is possible to receive the coal tar pitch in a liquid state. A new storage tank and heated pipeline for the receipt of liquid coal tar pitch is under construction. The facility has plans to receive only liquid pitch by the end of the year 2002. When the liquid pitch system is in place a fume combustion unit will be added. Changing from a solid to a liquid coal tar pitch will reduce the fines generated from handling the solid form. It is not known at this time whether the lack of the additional heating step will change the amount of heavy oil used.

RECEIVED
DEC 23 1999
KOPPERS INDS, INC.
PORTLAND OR

The Department of Environmental Quality (DEQ) approves your request for exemption from all TUR requirements, including annual TUR Plan updates and the Annual Pounds Report. With the following stipulations:

- DEQ applies this exemption to your use of heavy oil reported on the Toxics Release Inventory. Use of other TRI listed materials above threshold values or exceeding the Conditionally Exempt Generator (CEG) ceiling of 220 pounds in a calendar month will void this exemption, again triggering TUR planning and reporting requirements. An important note for your facility: Site cleanup wastes do not count towards monthly generator for the purposes of TUR requirements. (See the fact sheet provided by DEQ on site.)

DEQ reserves the right to reconsider this exemption if a problem noted in DEQ's recent Notice of Noncompliance remains unresolved or Koppers Industries fails to institute its liquid handling system in a timely fashion.

DEQ appreciates Koppers Industries help in clarifying our understanding of your process and for your continued push to institute improvements beneficial to Oregon's environment. Please feel free to request our assistance in the future. If you have further questions, please telephone me at 229-5165.

Sincerely,

Jay Collins
Hazardous Waste Specialist

cc: Tim Honadel, DEQ TUR Coordinator, WMC Division, Hazardous Waste Section
NWR HW File: Multnomah Co.; Koppers Industries; EPA ID ORD027734359

Post-it® Fax Note 7671	Date 12/24/99	# of pages ▶ 2
To T. Self	From Amos	
Co./Dept. M. Collins	Co.	
Phone #	Phone #	
Fax #	Fax #	

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

Fax Memorandum

August 31, 1999

Mr. Jay Collins
Oregon DEQ (WRAP)
Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201

RE: Toxic Use Reduction Rule

Dear Mr. Collins:

As we discussed on this date, Koppers Industries, Inc. operates a terminal facility that imports coal tar pitch in a solid form and then melts the pitch for loading into rail tank cars or tank trucks for distribution to our Aluminum producing customers. A heavy oil (coal tar distillate) is added back to the product, on an as needed basis for softening point adjustment, to replace the fractions lost during the melting process. As such, there is no processing of this product, only repackaging from a solid to liquid.

The Portland terminal facility is a conditionally exempt small quantity generator of hazardous waste. In 1998 we generated a total of 800 pounds of hazardous waste. The waste generated was debris (absorbents, rags etc.) contaminated with creosote. We no longer use creosote at this facility and the generation of this waste will be discontinued.

Due to these facts, Koppers Industries, Inc. does not fully understand were we would fit into the scheme of this regulation and ask that the Oregon DEQ review our applicability to this rule. We also respectfully request an extension of the associated reporting requirements until such time that a determination of applicability can be made.

Thank you for your time and consideration in this matter.

Sincerely,

Amos S. Kamerer
Cc: M. Cilley
T. Self K-1800

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

10/15/2004

Rebecca Paul
Natural Resource Specialist
Oregon Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland , Oregon 97201-4987

Subject: **Notice Of Noncompliance**
NWR-04-040
ORD027734359
Koppers Inc.
Hazardous Waste Violations
Multnomah County

Dear Rebecca:

Koppers received the Notice of Noncompliance on September 21, 2004 and respectively submits this response:

- Violation 1–Class 2: 40 CFR 262.34(a)(4) as it refers to 40 CFR 265.17(d)(1) requires a generator to maintain onsite a written list of the job descriptions of all positions related to hazardous waste management and the name of the employee who is filling that job position.

Response:

Koppers maintains written job descriptions for each position that specifically lists the Safety, Health and Environmental (SH&E) responsibilities of that position. The job description for the General Foreman and Utility man was provided to you during the inspection along with the training matrix that identified T.J. Turner as the general foreman and Scott Hummel as the utility-man. These two documents together meet the requirements of 265.17(d) (1); therefore no violation exists.

- Violation 2-Class 2: 40 CFR 262.34 (a)(4) as it refers to 40 CFR 265.37(a)(3) requires a generator to make arrangements with state emergency response authorities. The facility was unable to document those arrangements with the police and the hospital. The facility did have documentation for the arrangements that they made with the Fire Department and some other agencies.

KOPPERS

Response:

The Portland Terminal has historically been regulated as a CESQG and in 2002-2003 because of a downturn in economic conditions associated with the reduced operation of the Aluminum Smelters in the Pacific Northwest was forced to re-evaluate the planned operation of the facility and decided that the number of storage tanks located at the facility would not be needed for continued operation. Koppers than implemented a plan to reduce the number of tanks in use at the facility from 25 to 6. A large percentage of the tank contents were recycled or reused at another Koppers facility but the tank residue required disposal. In order to avoid the sampling and analysis involved with characterization (staff greatly reduced) Koppers decided to dispose of the material as hazardous waste. This cleaning effort has temporarily resulted in a change in generator status from CESQG to LQG.
As a CESQG the Portland Terminal was not required to have a contingency plan or coordination with agencies.

Due to the nature of materials in storage and Koppers commitment to SH&E, tabletop exercises have been held with local authorities (police, fire etc.) in an effort to coordinate response to emergencies. Koppers has completed the tank cleaning project and expects to return to CESQG status in 2004. In an effort to provide an acceptable response to ODEQ and ensure appropriate response a copy of the SPCC plan which includes a RCRA contingency plan will be forwarded to local fire, police and hospitals.

- Violation 3-Class 2: 40 CFR.34(a)(4) as it refers to 40 CFR 265.52(e) requires a generator to update the spill contingency Plan to include a complete list of emergency equipment. The facility had a list of the equipment and the location of that equipment however, the list must also include the capabilities of that equipment to be completed.

Response:

See response to Violation 2. The SPCC plan includes a list of emergency equipment. The footnote on this list includes the capability of the equipment and satisfies the intent of 40 CFR.52 (e). No violation exists. However further clarification of the capabilities of the equipment will be made and the SPCC Plan will be recertified and redistributed, once the clarifications have been completed.

Violation 4 –Class 2: 40 CFR 262.34(a)(1) as it refers to 40 CFR 265.174 requires a generator to develop and execute a plan for weekly inspections of the hazardous waste container storage area. Plans for the facility were reviewed and they stated that drums were stored prior to waste shipments. At the time of the inspection there were no drums in the storage area. The facility was not generating any waste at the time of inspection but has stored waste on-site in the past. No inspection documentation could be provided to show compliance.

KOPPERS

Response:

- See response to violation 2. As stated the Portland Terminal has historically been a CESQG and became a LQG due to plant cleaning activities. The facility did not have material in storage for extended periods of time but conducts daily field inspections (attached) management practice. As shown on the report the hazardous waste and oil station are inspected daily and have been inspected on a daily basis since 8/07/00. Koppers going forward anticipates returning to status of CESQG and therefore weekly inspections are not required but the Daily field inspections will continue as a best management practice.

Additional Concerns:

- Koppers has not made a decision as to continued operations at the Portland Terminal. The materials in storage in the pitch building are coal tar pitch which is a Koppers product. If at any time the material is declared a "hazardous waste" then the speculative accumulation regulation you cited in the notice of noncompliance will be followed.

- In response to your comment regarding a TCLP for Pitch. Koppers is providing the attached analysis to demonstrate that pitch is not a hazardous waste when sent for disposal. The material in the storage building is not a waste and is not intended for disposal.

Sincerely,

T.J. Turner
General Foreman

cc:

Enclosure(s)

Koppers Industries, Inc.

DAILY FIELD INSPECTION REPORT

	What condition?	How resolved?
DOCK	OK	
EVACUATOR PUMP AREA	OK	
PITCH LINE TEMP @ DOCK	OK @ 280°	
RIVERSIDE METERING STATION	OK	
HAZARDOUS WASTE & OIL STATION	OK	
LOWER TANK FARM STORAGE AREA	OK	
MAIN WASTE WATER SUMP AREA	OK	
COLLECTION SUMPS AREA	OK	
MAIN HOT OIL HEATER STATIONS	OK	
T-68 PITCH PUMP STATION	OK	
T-102 FUME SCRUBBER	OK	
BOLIER HOUSE	OK	
NITROGEN TANK STATION	OK	
T-200 VIKING PUMP STATION	OK	
T-200 HOT OIL DISTRIBUTION STATION	OK	

➢***During your daily inspection you will be looking for:***

1) Unsafe or hazardous conditions needs to be reported to the safety committee.
2) Housekeeping concerns
3) Unmarked drums, tanks, etc.
4) Possible and/or potential leaks or spills (⇒**must be cleaned up *immediately***⇐).
5) Machinery, pumps and equipment functioning adversely or not at all.

☒**Report spills and/or conditions of imminent danger *immediately*.**☒

Signature: _____ **Date:** 4 - 9 - 01 **Start time:** 1 1 2

Koppers019076

Koppers Industries, Inc.

DAILY FIELD INSPECTION REPORT

	What condition?	How resolved?
DOCK: Dock unloading line, Dock unloading line temperature	205° ok	
EVACUATOR PUMP AREA	ok	
PITCH LINE FROM T-200 TO END OF DOCK-WALK LINE	ok	
RIVERSIDE METERING STATION	ok	
HAZARDOUS WASTE & OIL STATION	ok	
LOWER TANK FARM STORAGE AREA	ok	
MAIN WASTE WATER SUMP AREA	ok	
COLLECTION SUMPS AREA	ok	
MAIN HOT OIL HEATER STATIONS	ok	
T-68 PITCH PUMP STATION	ok	
T-102 FUME SCRUBBER	ok	
BOLIER HOUSE	ok	
NITROGEN TANK STATION	ok	
T-200 VIKING PUMP STATION	ok	
T-200 HOT OIL DISTRIBUTION STATION	ok	

➢***During your daily inspection you will be looking for:***

1) Unsafe or hazardous conditions needs to be reported to the safety committee.
2) Housekeeping concerns
3) Unmarked drums, tanks, etc.
4) Possible and/or potential leaks or spills (⇒**must be cleaned up *immediately***⇐).
5) Machinery, pumps and equipment functioning adversely or not at all.

☒ **Report spills and/or conditions of imminent danger immediately.** ☒

Signature: Ken Eaton **Date:** 2/24/03 **Start time:**

Koppers019077

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

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

September 20, 2004

T.J. Turner
General Forman
Koppers Inc
7540 NW Saint Helens Road
Portland, OR 97210

RE: **Notice of Noncompliance**
NWR-04-040
ORD027734359
Koppers Inc
Hazardous Waste Violations
Multnomah County

Dear Mr. Turner:

This Notice of Noncompliance (hereinafter called "Notice") is issued in accordance with Oregon Administrative Rules (OAR) 340-12-041(1) for hazardous waste violations documented by the Oregon Department of Environmental Quality (the Department) at the Koppers Inc facility, located at 7900 NW Saint Helens Rd, Portland, Oregon, in Multnomah County. The violations were identified during the September 13, 2004 hazardous waste inspection.

The purpose of this Notice is to inform you of violations that have been identified so that you can begin to take action to correct them. Based upon your response to these violations and upon completion of the Department's investigation, additional violations may be identified. The Department will inform you in a subsequent Notice of Noncompliance if additional violations need to be corrected.

The inspection was scheduled and conducted to determine whether hazardous waste management activities at your Portland facility are in compliance with the applicable state and federal hazardous waste regulations. These regulations are found in OAR 340 and the Code of Federal Regulations (40CFR 260-270 and 279).

As a result of this inspection, Koppers Inc was determined to be a Large Quantity Generator, (LQG) of hazardous waste, based on monthly generation of more than 2,200 pounds of hazardous waste in 2002 and 2003. The facility is currently a Conditionally

Exempt Generator, (CEG) but there is a potential for the Koppers to be an LQG in the future, therefore the following LQG violations are cited:

Hazardous Waste Violations

Violation 1 - Class 2: 40 CFR § 262.34(a)(4) as it refers to 40 CFR § 265.17(d)(1) requires a generator to maintain onsite a written list of the job descriptions of all positions related to hazardous waste management and the name of the employee who is filling that job position.

Violation 2 - Class 2: 40 CFR § 262.34(a)(4) as it refers to 40 CFR § 265.37(a)(3) requires a generator to make arrangements with state emergency response authorities. The facility was unable to document those arrangements with the police and the hospital. The facility did have documentation for the arrangements that they made with the Fire Department and some other agencies

Violation 3 - Class 2: 40 CFR § 262.34(a)(4) as it refers to 40 CFR § 265.52(e) requires a generator to update the Spill Contingency Plan to include a complete list of emergency equipment. The facility had a list of the equipment and the location of that equipment however, the list must also include the capabilities of that equipment to be complete.

Violation 4 - Class 2: 40 CFR § 262.34(a)(1)(i) as it refers to 40 CFR § 265.174 requires a generator to develop and execute a plan for weekly inspections of the hazardous waste container storage area. Plans for the facility were reviewed and they stated that drums were stored prior to waste shipments. At the time of the inspection there were no drums in the storage area. The facility was not generating any waste at the time of inspection but has stored waste on-site in the past. No inspection documentation could be provided to show compliance.

These are Class 2 violations are considered to be significant violations of Oregon environmental law. Should you fail to correct these violations or should similar violations occur during future inspections than we will be referred to the Department's Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action. A formal enforcement action may include a civil penalty assessment for each day of violation.

Corrective Action

Kopper's is to immediately begin correcting the violations identified in this Notice and inform the Department of the actions taken to correct these violations and prevent their recurrence. Please take the following immediate actions:

Violation 1: Maintain onsite a written list of the job descriptions of all positions related to hazardous waste management. You will also want to include specific hazardous waste tasks as part of those work descriptions. Not only were these

descriptions lacking a specific employee names, the tasks stated were not specific to hazardous waste management and handling.

Violation 2: Make arrangements with state emergency response authorities. Please send notifications and a copy of your Spill Contingency Plan to the local Police Department and Hospital via certified mail. Supply a copy of the letter sent and the certified mail receipts to the Department.

Violation 3: Update the Spill Contingency Plan to include a list of emergency equipment and the capabilities of that equipment.

Violation 4: Develop and execute a plan for weekly inspections of the hazardous waste container storage area. Develop an inspection work sheet to be used for facility inspections in the future. These inspections do not need to be implemented until the facility generates waste.

Additional Concerns

Koppers is in the process of assessing the future of the company's business in Oregon. Currently, the facility has one full-time staff person and three part-time staff members. One area inspected was the coal tar pitch storage area. The coal tar is stored in steel building on the site, which would not meet the standards for hazardous waste storage. As part of the process coal tar is placed in this building for processing. The coal tar is heated so that it can be shipped to Koppers customers in a liquid form. Koppers has not set up the conveyer belt to process coal tar since the first of this year. During the inspection I observed that there was a spill of the liquid material which had hardened. This spilled coal tar had not been reprocessed or clean up the building.

Given that the Koppers is still operating and still has customers who purchase this coal tar, it would be prudent for the Koppers to clean out this area and process this material for sale to the customers. Currently, the coal tar is regulated as a product. The facility has generated some of this waste in the past. When it was generated it was managed as a Hazardous waste as a TCLP waste stream due to the presence of Benzene. According to the manager at that time the waste was not tested to determine if the material was a hazardous waste. He said, they used process knowledge and decided to take a conservative approach and manage the material as a hazardous waste. No TCLP data could be provided.

Because this material requires reclamation and it appears to be hazardous it may be covered under the speculative accumulation rules, which means that 75% of the material must be processed within one calendar year. According to personnel none of this material has been processed in the last nine months.

Please inform the Department on how the facility plans to proceed with the management of this area. If Koppers plans to process the coal tar please make arrangements with the Department for a re-inspection. Should Kopper's choose not to reprocess the coal tar, a

recommendation will be made to schedule the facility for a re-inspection in January. At that time we will be requesting processing records and a waste determination.

Pollution Prevention

This Notice does not require you to implement pollution prevention. However, the Department strongly recommends you consider pollution prevention options, where applicable, to prevent the violations outlined in this notice from recurring. Pollution prevention may also enable you to reduce environmentally driven costs, reduce operating costs, and reduce the regulatory requirements and fees applied to you.

You may accomplish pollution prevention by:

1. Improving process efficiency.
2. Reducing use of energy, chemicals or raw materials.
3. Reducing amounts or toxicity of pollutants, discharges, wastes and emissions.

Required Response

Within thirty days of receipt of this Notice, unless otherwise stipulated above, the Department requests a written response. The response must include a description of the measures that have been taken, or are proposed to be taken, to correct and control each violation outlined in this Notice. Include a description of the measures taken to prevent the violation from recurring.

You may also include a description of any steps you have taken to implement pollution prevention recommendations.

Please send **two** copies of your response to:

Rebecca Paul
Department of Environmental Quality
2020 SW Fourth, Suite 400
Portland, OR 97201

If you have any questions concerning this Notice, you may contact me at (503) 229-6105.

Sincerely,

Rebecca Paul

Rebecca Paul
Natural Resource Specialist

(files)
cc: Office of Compliance and Enforcement, DEQ

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

November 29, 2004

T.J. TURNER
GENERAL FORMAN
KOPPERS INC
7540 NW SAINT HELENS ROAD
PORTLAND OR 97210

RE: **Notice of Noncompliance**
NWR-04-040
ORD027734359
Koppers Inc
Hazardous Waste Violations
Multnomah County

Dear Mr. Turner:

I reviewed the information that you have submitted for the violations documented at the Koppers facility located at 7540 NW Saint Helen Road in Portland, Oregon to demonstrate compliance with the above referenced Notice of Noncompliance (Notice). Koppers has supplied the required documentation to demonstrate compliance. However; I would like to make you aware of concerns regarding Koppers understanding regarding requests for requirements documentation.

In your response Koppers has stated that your facility is not in violation with any of the requirements because you were able to provide the requested documentation after the fact. These documents could have been produced after the fact and they were not made available at the time of the inspection. I made three requests for these documents.

During my initial inspection with Mr. Turner, the second when returned to the site several days later and met with Mr. Amos Krammer and the Corporate Environmental person by phone. My last request was made during the closing conference where I stated the violations to be cited and what I would be requesting to demonstrate compliance. Records must be made available at the time of the inspection and a failure to do so is a violation of ORS 466.090. Therefore, these violations in fact did occur. I wish to make Kopper's aware that they are regulated under other permits with the City of Portland and with the Department. It is important that Koppers understands that Departments position with respect to complying with documentation requests.

This case will not be forwarded on the Department's Enforcement Section at this time. However, the other programs within the Department will be made aware of the issue with documentation requests, and failure to provide documentation during a future inspection could lead to an enforcement action.

I am considering the violations that were cited closed, and the Department will not be pursuing a further action regarding this Notice. If you have any questions concerning this Notice, you may contact me at (503) 229-6105.

Sincerely,

Rebecca Paul

Rebecca Paul
Natural Resource Specialist

(files)
cc: Office of Compliance and Enforcement, DEQ

cc: J. Dretz, K-1650
T. Self, K-1800
12/14/04

FAX TRANSMITTAL

KOPPERS INDUSTRIES, INC.
7540 NW SAINT HELENS RD.
PORTLAND, OR 97210-3663

TELEPHONE: 503-286-3681
FAX: 503-285-2831

TO: Rebecca Paul, Environmental Specialist
Oregon DEQ – Northwest Region
Portland, Oregon
FROM: Amos Kamerer

DATE:
08/05/99

TOTAL # OF
PAGES: 2

SUBJECT: HW – Multnomah
Koppers Industries, Inc.
ORD 02773459
HWR-HW-99-042

Dear Ms. Paul,

Per my letter of July 29, 1999 on this subject; attached please find the Certificate of Analysis from Columbia Inspection, Inc. on the used oil sample that was taken on July 28, 1999 on the material that is in the former Chemcoa drum. According to Columbia, these results confirm that this material is indeed used oil, thus, we hope that this is sufficient to resolve this matter. However, should you need conformation of these results, you are more than welcome to come and take your own sample of this material, for analysis.

Please let me know if there is any thing else that I can do for you, in this regard.

Sincerely,

Amos S. Kamerer

CC: T Self, KII

Bcc: J. Cox

IF THIS TRANSMITTAL IS RECEIVED IN ERROR, PLEASE ADVISE.

CERTIFICATE OF ANALYSIS

CLIENT: KOPPERS INDUSTRIES, INC.
7540 NW ST. HELENS ROAD
PORTLAND OR 97210-3663

PHONE: (503) 286-3681
FAX: (503) 285-2831

DATE SUBMITTED: 07/29/99

PROJECT NAME: USED OIL ANALYSIS

CI SAMPLE #	CLIENTS ID#	DATE	TIME	DESCRIPTION
991508-001		07/20/99		USED OIL SAMPLE

REPORT DATE: 08/03/99 REPORT NUMBER: 991508 PAGE: 1 OF 1

SAMPLE	ANALYSIS	PARAMETER	RESULT	UNIT	DETECTION LIMIT	ANALYST
USED OIL SAMPLE						
991508-001	API GRAVITY ASTM D-1298	API CORRECTED TO 60 F	26.6	DEG. API		Gordon L.
	ASH CONTENT ASTM D-482	ASH FROM PETROLEUM PRODUCTS	0.48	WT %	0.01	Gordon L.
	BTU ASTM D-240	HEAT OF COMBUSTION	18,000	BTU/LB	200	Steve W.
	DENSITY ASTM D-1298	DENSITY @ 15 C	0.8945	G/ML		Gordon L.
	FLASH POINT - PMCC ASTM D-93	FLASH POINT	175	DEG F		Abigail K.
	POUR POINT, F ASTM D-97	POUR POINT	-36	DEG. F		Gordon L.
	SED BY EXTRACTION ASTM D-473	SEDIMENT BY EXTRACTION	0.81	WT%	0.002	Gordon L.

REVIEWED BY: Martin Little - Quality Manager

Koppers019085

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

CERTIFIED MAIL RETURN RECIEPT REQUESTED

June 28, 1999

MR AMOS KAMERER
KOPPERS INDUSTRIES
7540 NW ST HELENS ROAD
PORTLAND OREGON 97210-3663

RE: HW-Multnomah County
Koppers Industries
ORD 02773459
NWR –HW-99-042

Dear Mr. Kamerer:

I have read your response to the Notice of Noncompliance sent to you on June 4, 1999. The response submitted has not addressed the issues correctly. I requested that a hazardous waste determination be done on several drums located at your facility. There were two drums that you have identified as being waste, however, you have not supplied documentation to demonstrate an adequate waste determination. One of these drums contained a corrosive material and one drum contained used oil and ZEP cleaner, which you now claim, has used oil. Both of these containers need to be tested. The MSDS sheets are to be used for employee safety not to use as a waste determination exclusively. The pH paper used during the inspection indicated that the pH was above the 12.5 range. The type of paper used does not vary to the degree that you state the pH is. This waste will need to be tested to determine the exact pH. Additionally, this container needs to be over packed or placed in a new container. I requested that this be done during the inspection to prevent more spillage. That has not been corrected as your photographs show. The other container that you have marked as used oil will also need to be tested. There is conflicting information on the container, and there was no knowledge expressed at the time of the inspection that would indicate that any of these containers held used oil.

It should also be noted that containers are required to be labeled for Oregon OSHA and the state fire marshal. The lack labels on the containers would not have complied with either of these requirements.

With respect to your answer to Violation 2, you are incorrect with your assessment of what constitutes a spill of a hazardous material. This material is a corrosive material as defined under the Department of Transportation. All spills onto soil are required to be cleaned up immediately. I am enclosing a copy of the spill rules so that you can properly manage spills on your property in the future. You should also be aware that no releases are allowed to the soils or waters of the state without a permit, the release from the Clean Sweep truck was not a permitted discharge, and therefore was cited as a different violation.

→ Not received

I am also requesting that you provide me with the following documentation to demonstrate compliance with the Notice of Noncompliance originally sent on June 4, 1999.

1. Submit a hazardous waste determination on the two drums of waste at the facility. This must include waste testing. A pH must be performed on the corrosive material, and if this material was used for cleaning then TCLP metals will also need to be tested for.
2. Submit lab data on the drum that you are claiming is used oil. This data needs to include a flash point test, TCLP metals, and a pH will also need to be done on this container, because there is some dispute about the nature of the cleaning compound.
3. The corrosive drum will need to be overpacked. Supply photodocumentation that this has been done.
4. For the violations related to the spill and the placing of waste in a location where they are likely to enter the waters of the state, enclosed is a spill report outline. Both of these issues need to be addressed under the spill report outline. ↳ Not Received

All the above requested information will need to be submitted to me within 10 days from the receipt of this Notice. (Wed. 6/30/99)

Should you have any questions or concerns regarding this letter please feel free to contact me at 229-5543.

Sincerely,

Rebecca Paul

Rebecca Paul
Environmental Specialist
Northwest Region

Post-it® Fax Note 7671	Date 6/30/99	# of pages ▶ 2
To T Self	From Amos	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

T. Self, E-1800

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

RECEIVED
JUN 28 1999

June 25, 1999

Rebecca Paul
Environmental Specialist
Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

Re: HW-Multnomah County
Koppers Industries
ORD 027734359
NWR-HW-99-042
Notice of Noncompliance

Dear Ms. Paul,

This is in response to your June 4th, 1999 NON letter to Mr. T. J. Turner that is referenced above.

VIOLATION 1: ORD-340-122-012 Failure to perform a hazardous waste determination on seven drums located at the facility.

A review of the seven drums is as follows:

a) One drum contained a citrus based material manufactured by ZEP, that is used for various cleaning purposes around the plant; tools, lab utensils, etc.. An MSDS for this product is attached for your reference. See the attached picture #1.

b) One drum contained a product named 596-B Aluminum Brightener. This drum was many years old, where the labels had faded; thus it was not properly identifiable. A label and MSDS for this material is also attached for your reference. See the attached picture #1.

c) One drum contained a product named 592 REACT, that is used as the pre wash material for the above 596-B Aluminum Brightener Product. This is the drum that had the crack in the top of it, where it had leaked on to the ground and that you sampled, to run a PH analysis. The MSDS for this material is also attached for you reference. You will note that this show's the PH for this product to be 11.9. Your report stated that your result was a PH of 14. Based on the MSDS and the information that was available during the inspection, we believe that the PH was below 12.5, thus, it was not a hazardous waste. The material in question has been collected and disposed of in accordance with the applicable regulations. Picture # 2 attached shows this drum.

d) One drum was labeled as Chemoca: a former citrus based cleaning product that we used in the plant, prior to switching over to the use of the ZEP product mentioned above. The Chemcoa label has been removed and it is now stenciled "used oil for recycling". This is the drum that you noticed the NFPA fire hazard 3 on the label, thus, this was not an applicable issue. See the attached picture #3.

e) One drum was a "used oil to be recycled" drum, and was properly stenciled. Since your visit, this drum has been cleaned and made more readable. See the attached picture #4.

f) Two drums were empty plastic storage drums. See pictures # 5 and # 5A attached.

The lead-acid batteries that you saw have now been sent off to be recycled. Since there were no hazardous waste, there are no manifest's to provide, as you requested.

We have already, and well further review the proper storage and handling procedures for all products that are in use in the plant, with our employee's.

VIOLATION 2: Failure to immediately clean up a spill of a hazardous material.

This material was the 592 REACT drum referenced above as "c". We contend that if the PH was not at the 14 level, then this was not a hazardous material spill.

VIOLATION 3: Placing wastes in a location where the wastes are likely to enter the waters of the state.

The materials in question were cleaned up immediately and were disposed of in accordance with all applicable regulations. See picture # 6 of this cleaned up area.

TJ faxed you a copy of a Sanifill of Oregon, Generator's Special Waste Profile sheet, which was not applicable, to our current permit. Our current permit is with USA Waste Services, Inc. and is based on the information contained in the MSDS's for the products to be disposed, and the generator's knowledge of the product. A copy of our current permit is attached.

Also, Koppers Industries would like to have a copy of all of the pictures that were taken, during your visit on the 4th, for our files.

Please advise, if you require any additional information.

Sincerely,

Amos Kamerer
Deqnon699.1

CC: T. Self, Environmental Manager, Koppers Industries

Bcc: J. Orefice
T. J. Turner

DOT SHIPPING NAME

Compound Cleaning Liquid

NA 1760

596-B ALUMINUM BRIGHTENER

DIRECTIONS:

An acidic pre-conditioner used with H592 for two step washing. Contains no phosphates and is completely biodegradable. Finished dilution rate for auto or truck washing should be 1:100. To brighten aluminum, the ratio should be 1:50. This product can etch glass if applied at a stronger dilution than 1:90 or if the product dries on the glass before step #2 is applied. Rinse glass and wipers thoroughly.

WARNING: KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY. IN CASE OF CONTACT WITH EYES, FLUSH THOROUGHLY WITH WATER. GET PROMPT MEDICAL ATTENTION.

Seller makes no warranty expressed or implied as to the use of this material beyond label instructions. Buyer assumes all risk of use and/or handling of this material.

AMERICAN EQUIPMENT CO., INC.
89 N.E. Columbia Blvd. Portland, Oregon 97211 **(503) 283-4011**

DOT SHIPPING NAME

Compound Cleaning Liquid

NA 1760

592 REACT

DIRECTIONS:

Heavy duty liquid detergent designed for cleaning fleets such as trailers and tank trucks. Developed for use in pressure washers using hot or cold water. A highly concentrated detergent that quickly removes heavy road film. If this product is applied to a painted surface, test on an inconspicuous area for color fastness.

WARNING: KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY. IN CASE OF CONTACT WITH EYES, FLUSH THOROUGHLY WITH WATER. GET PROMPT MEDICAL ATTENTION.

Seller makes no warranty expressed or implied as to the use of this material beyond label instructions. Buyer assumes all risk of use and/or handling of this material.

AMERICAN EQUIPMENT CO., INC.
89 N.E. Columbia Blvd. Portland, Oregon 97211 **(503) 283-4011**

May 26 99 10:59a American Equipment Co. (503) 283-4074 P.4

Koppers019090

596-B ALUMINUM BRIGHTENER
MATERIAL SAFETY DATA SHEET

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME
American Equipment Company, Inc.

TELEPHONE
(503) 283-4011

ADDRESS
89 N.E. Columbia Blvd. Portland, OR 97211-1413

CHEMICAL NAME AND SYNONYMS

TRADE NAME & SYNONYMS
596-B Aluminum Brightener

CHEMICAL FAMILY
Strong Acid Mineral (pH 1.5)

FORMULA
Proprietary

SECTION II - INGREDIENTS

HAZARDOUS INGREDIENTS	*C.A.S. No.*	*UN No.*	*TLV Units*
Hydroflouric Acid	7664-39-3	1786	3 ppm (vapor)
Sulfuric Acid	7664-93-9	1833	1 ppm (vapor)
CARCINOGENIC INGREDIENTS	*C.A.S. No.*	*UN No.*	*TLV Units*
N.A.			

SECTION III - PHYSICAL DATA

BOILING POINT (F.)
231' F

SPECIFIC GRAVITY (H20=1)
1.192

VAPOR PRESSURE (mm. HG)
N.A.

% VOLATILE BY VOLUME
N.A.

VAPOR DENSITY (AIR=1)
N.A.

EVAPORATION RATE (___=1)
N.A.

SOLUBILITY IN WATER
100%

APPEARANCE AND ODOR
Blue liquid, odorless

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)
Not combustible

FLAMMABLE LIMITS
N.A.

EXTINGUISHING MEDIA
Not flammable

SPECIAL FIRE FIGHTING PROCEDURES
Forms corrosive acid solutions when heated to decomposition. Emits toxic fumes of phosphorous oxide.

UNUSUAL FIRE AND EXPLOSION HAZARDS
None

DATE: May 13, 1992

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

1 milligram per cubic meter

EFFECTS OF OVEREXPOSURE

CORROSIVE TO SKIN AND EYES

EMERGENCY AND FIRST AID PROCEDURE

SKIN: Wash promptly with soap & water - rinse with baking soda solution. EYE: Flush IMMEDIATELY with potable water for 10 minutes. CONTACT A PHYSICIAN. INGESTION: Drink a teaspoon or more of magnesia, chalk, whiting, wall plaster, or small pieces of soap softened with water in milk, mucilage, or raw egg white. SEE A PHYSICIAN.

SECTION VI - REACTIVITY DATA

STABILITY

Stable

CONDITIONS TO AVOID

N.A.

INCOMPATIBILITY (Materials To Avoid)

Do not mix with strong alkalies. Do not store in glass containers.

HAZARDOUS DECOMPOSITION PRODUCTS

Phosphorous oxide

HAZARDOUS POLYMERIZATION

Will Not Occur

CONDITIONS TO AVOID

N.A.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Neutralize the spillage with baking soda, soda ash, or caustic soda to a pH of 7.0. Flush with water.

WASTE DISPOSAL METHOD

Neutralize to a pH of 7.0, then mop up or flush to drain. Observe all Federal, State and Local regulations regarding pollution and waste disposal.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type)

N.A.

VENTILATION

Local exhaust

PROTECTIVE GLOVES

Rubber

EYE PROTECTION

Goggles or face shield

OTHER PROTECTIVE EQUIPMENT

Rubber boots, apron

SECTION XI - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not ingest. Prevent contact with skin and eyes. Keep out of reach of children.

DATE: May 13, 1992

592 REACT
MATERIAL SAFETY DATA SHEET

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME
American Equipment Company, Inc.

TELEPHONE
(503) 283-4011

ADDRESS
89 N.E. Columbia Blvd. Portland, OR 97211-1413

CHEMICAL NAME AND SYNONYMS

TRADE NAME & SYNONYMS
592 React

CHEMICAL FAMILY
Alkali (pH 11.9)

FORMULA
Proprietary

SECTION II - INGREDIENTS

HAZARDOUS INGREDIENTS	*C.A.S. No.*	*UN No.*	*TLV Units*
Potassium Hydroxide	1310-58-3	1814	2mg/m^3
CARCINOGENIC INGREDIENTS	*C.A.S. No.*	*UN No.*	*TLV Units*
N.A.			

SECTION III - PHYSICAL DATA

BOILING POINT (F.)
231' F

SPECIFIC GRAVITY (H20=1)
0.916

VAPOR PRESSURE (mm. HG)
N.A.

% VOLATILE BY VOLUME
N.A.

VAPOR DENSITY (AIR=1)
N.A.

EVAPORATION RATE (___=1)
N.A.

SOLUBILITY IN WATER
100%

APPEARANCE AND ODOR
Red Liquid

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)
Not combustible

FLAMMABLE LIMITS
N.A.

EXTINGUISHING MEDIA
Not flammable

SPECIAL FIRE FIGHTING PROCEDURES
None

UNUSUAL FIRE AND EXPLOSION HAZARDS
None

DATE: May 13, 1992

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

OSHA 2mg/m^3

EFFECTS OF OVEREXPOSURE

CORROSIVE TO SKIN AND EYES

EMERGENCY AND FIRST AID PROCEDURE

SKIN: Flush with water, removing contaminated clothing. EYE: Flush with water for 15 minutes. INGESTION: Drink large quantities of water. Seek medical attention.

SECTION VI - REACTIVITY DATA

STABILITY

Stable

CONDITIONS TO AVOID

Contact with undiluted 592 with aluminum, zinc, tin and leather.

INCOMPATIBILITY (Materials To Avoid)

Strong acids

HAZARDOUS DECOMPOSITION PRODUCTS

Contact of undiluted chemical with aluminum will generate hydrogen gas.

HAZARDOUS POLYMERIZATION

Will Not Occur

CONDITIONS TO AVOID

N.A.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Reclaim if possible, or dilute with large amounts of water.

WASTE DISPOSAL METHOD

Carefully dilute with large quantities of water, neutralize with acid. Discharge slowly to sewer, if allowed by Local, State and Federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type)

N.A.

VENTILATION

Local exhaust

PROTECTIVE GLOVES

Rubber

EYE PROTECTION

Goggles or face shield

OTHER PROTECTIVE EQUIPMENT

Rubber boots, apron

SECTION XI - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep container closed. Store in a well ventilated area. Keep from freezing. Keep out of reach of children.

DATE: May 13, 1992

CHEMCOA
CHEMICAL CORPORATION OF AMERICA

Citrus Based Asphalt
Cleaner and Remover

PRODUCT BULLETIN
CHEMCOA 1035-A

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.

Koppers019095

Material Safety Data Sheet

CHEMCOA 1035-A
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, and ZIP: Portland, OR 97202

Other Information Calls: (503) 232-3334

Signature of Person Responsible for Preparation (Optional):

Date Prepared: 10/27/87, revised 9/25/91

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common name(s))	OSHA PEL	ACGIH TLV	Other Exposure Limits	% (optional)	CAS NO.
Petroleum Hydrocarbon	500ppm	200ppm	TLV/STEL 200ppm		64742-88-

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: N/A

SECTION 4 - FIRE & EXPLOSION DATA

Flash Point: 147°F. F C.

Method Used: COC

Flammable Limits in Air % by Volume: LEL Lower 1.0 UEL Upper 7.0

Auto-Ignition Temperature: None

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 clot in

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.

Incompatability (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: Pulmonary irritation.
2. Chronic: None reported.

Signs and Symptoms of Exposure: Coughing, dizziness and drying of skin.

Medical Conditions Generally Aggravated by Exposure: Pneumonia if ingested.

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: Flush eyes with water for 15 minutes; wash skin with soap and water; if ingested, seek medical attention.

ROUTES OF ENTRY

1. Inhalation: May cause pulmonary irritation.
2. Eyes: May cause slight irritation.
3. Skin: Prolonged and repeated liquid contact may cause drying of skin.
4. Ingestion: May cause nausea, illness.

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.

Other Precautions: Eliminate sources of ignition.

Steps to be Taken in Case Material is Released or Spilled: Contain spill with a non-combustible absorbant, and place in drums for disposal. Do not discharge to 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 required.

Ventilation: Cross-vent. Local Exhaust: N/A Mechanical (General): N/A Special: N/A Other: N/A

Protective Gloves: Rubber, neoprene Eye Protection: Goggles.

Other Protective Clothing or Equipment: Long sleeves and trousers.

Work/Hygienic Practices: Wash thoroughly after handling.

IMPORTANT
Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.

CU-F1R Printed by Labelmaster, Division of American Labelmark Company, Inc. Chicago, IL 60646-6719

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

ISSUE DATE: 08/24/93
SUPERSEDES: 10/30/89 Date printed: 06/24/99

ZEP BIG ORANGE AEROSOL
Product No: 0114 Aerosol Solvent Degreaser

SECTION I -EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(770) 439-4200 *NON OFFICE HOURS, WEEKENDS*
(770) 432-2873 *AND HOLIDAYS, PLEASE CALL YOUR*
(770) 455-8160 LOCAL POISON CONTROL
(770) 552-8836
(770) 424-2048
(770) 424-4789
TRANSPORTATION EMERGENCY:
(770) 922-0923
CHEMTREC:
(800) 424-9300 TOLL FREE - ALL CALLS RECORDED
DISTRICT OF COLUMBIA:
(202) 483-7616 ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	(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	70-80
** BLEND OF [ISOBUTANE; CAS# 75-28-5; RTECS# TZ4300000] & [PROPANE; CAS# 74-98-6; RTECS# TX2775000] & [n-BUTANE; CAS# 106-97-8; RTECS# EJ4200000] OSHA PEL-1000 ppm **	800	FBL	10-20

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 itching.
One 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 of 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. 4; REACT. 0; PERS. PROTECT. A ; 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, occasionally lifting upper and lower lids. Get medical attention at once.
INHALE: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
INGEST: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: Wear nitrile gloves or use gloves with demonstrated resistance to the ingredients in this product.
EYE PROTECTION: Wear tight-fitting splash-proof safety glasses especially if contact lenses are worn.
RESPIRATORY PROTECTION: Keep face away from spray mist and do not breathe vapors.
VENTILATION: Ventilation should be equal to outdoors. Use exhaust fans and/or exhaust hood in enclosed spaces.

SECTION V - PHYSICAL DATA

BOILING POINT (F):	N/A	SPECIFIC GRAVITY:	
VAPOR PRESSURE(mmHg):	40 P.S.I.	EVAPORATION RATE (N/A=1):	N/A
VAPOR DENSITY(AIR=1):	N/A	pH(CONCENTRATE):	N/A
SOLUBILITY IN WATER:	COMPLETE	pH(USE DILUTION OF N/A):	N/A
VOC CONTENT (CONCENTRATE):	94.9%		

APPEARANCE AND ODOR: CLEAR LIQUID WITH ORANGE FRAGRANCE

(Continued on Page: 2)

Product No: 0114 **SECTION VI - FIRE AND EXPLOSION DATA (continued)**

FLASH POINT(F) (METHOD USED): Extremely Flammable (CSMA)
FLAMMABLE LIMITS: LEL: N/A UEL: N/A
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, water fog, foam.
SPECIAL FIRE FIGHTING: Wear self-contained positive pres. breathing apparatus.
UNUSUAL FIRE HAZARDS: Direct water onto intact containers to prevent bursting.

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:
Observe safety precautions in sections 4 & 9 during spill clean-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (eg Zep-O-Zorb), and placed in a suitable container for disposal. Wash area thoroughly with a detergent solution and rinse well with water.
WASTE DISPOSAL METHOD:
Product is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of aerosol containers may require handling as a hazardous waste, but in most states total hazardous waste quantities less than 220 lbs per month may allow disposal in a chemical or industrial waste landfill. Consult local, state and federal agencies for the proper disposal method in your area.
RCRA HAZ. WASTE NOS.: D001

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:
Flammable! Store and use away from heat, sparks, open flame, and any source of ignition.
Do not store at temperatures above 120F (39C) or in direct sunlight. Do not puncture or incinerate container.
Keep product away from skin and eyes.
Do not breathe spray mists or vapors.
Clothing or shoes which become contaminated with substance should be removed promptly and not reworn until thoroughly cleaned.
Keep out of the reach of children.

SECTION X - REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: CONSUMER COMMODITY,
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: ORM-D DOT PACKING GROUP: N/A
DOT I.D. NUMBER: N/A DOT LABEL/PLACARD: ORM-D
EPA TSCA CHEMICAL INVENTORY - ALL INGREDIENTS ARE LISTED
EPA CWA 40CFR PART 117 SUBSTANCE(RQ IN A SINGLE CONTAINER): NONE

(Continued On Page 3)

NOTICE

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As a further word of caution. Zep wishes to advise that serious accidents have resulted from the misuse of "emptied" containers. "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, or other sources of ignition; they may explode or develop harmful vapors and possibly cause injury or death. Clean empty containers by triple rinsing with water or an appropriate solvent. Empty containers must be sent to a drum reconditioner before reuse.

TERMS AND ABBREVIATIONS LISTED ALPHABETICALLY BY SECTION

SECTION II: HAZARDOUS INGREDIENTS

CAR: Carcinogen - A chemical listed by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC) or OSHA as a definite or possible human cancer causing agent.
CAS #: Chemical Abstract Services Registry Number - A universally accepted numbering system for chemical substances.
CBL: Combustible - At temperatures between 100F and 200F chemical gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester.
CNS: Central Nervous System depressant which reduces the activity of the brain and spinal cord.
COR: Corrosive - Causes irreversible injury to living tissue (e.g. burns).
DESIGNATIONS: Chemical and common names of hazardous ingredients.
EIR: Eye Irritant Only - Causes reversible reddening and/or inflammation of eye tissues.
EXPOSURE LIMITS: The time weighted average (TWA) airborne concentration at which most workers can be exposed without any expected adverse effects. Primary sources include ACGIH TLVs, and OSHA PELs (TWA, STEL and ceiling limits).
- ACGIH: American Conference of Governmental Industrial Hygienists.
- CEILING: The concentration that should not be exceeded in the workplace during any part of the working exposure.
- OSHA: Occupational Safety and Health Administration
- PEL: Permissible Exposure Limit - A set of time weighted average exposure values, established by OSHA, for a normal 8-hour day and a 40-hour work week.
- PPM: Parts per million - unit of measure for exposure limits.
- (S) SKIN: Skin contact with substance can contribute to overall exposure.
- STEL: Short Term Exposure Limit - Maximum concentration for a continuous 15-minute exposure period.
- TLV: Threshold Limit Value - A set of time weighted average exposure limits, established by the ACGIH, for a normal 8-hour day and a 40-hour work week.

FBL: Flammable - At temperatures under 100F, chemical gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester.
HAZARDOUS INGREDIENTS: Chemical substances determined to be potential health or physical hazards based on the criteria established in the OSHA Hazard Communication Standard - 29 CFR 1910.1200
HTX: Highly toxic - the probable lethal dose for a 70kg (150 lb.) man and may be approximated as less than 6 teaspoons (2 tablespoons).
IRR: Irritant - Causes reversible effects in living tissues (e.g. inflammation) - primarily skin and eyes.
N/A: Not Applicable - Category is not appropriate for this product.
N/D: Not Determined - Insufficient information to make a determination for this item.
RTECS#: Registry of Toxic Effects of Chemical Substances - an unreviewed listing of published toxicology data on chemical substances.
SARA: Superfund Amendment and Reauthorization Act - Section 313 designates chemicals for possible reporting for the Toxics Release Inventory.
SEN: Sensitizer - Causes allergic reaction after repeated exposure.
TOX: Toxic - The probable lethal dose for a 70 kg (150 lb.) man is one ounce (2 tablespoons) or more.

(rev. 1/98)

SECTION III: HEALTH HAZARD DATA

ACUTE EFFECT: An adverse effect on the human body from a single exposure with symptoms developing almost immediately after exposure or within a relatively short time.
CHRONIC EFFECT: Adverse effects that are most likely to occur from repeated exposure over a long period of time.
EST D'PEL/TLV: This estimated, time-weighted average, exposure limit, developed by using a formula provided by the ACGIH, pertains to airborne concentrations from the product as a whole. This value should serve as guide for providing safe workplace conditions to nearly all workers.
HMIS CODES: Hazardous Material Identification System - a rating system developed by the National Paint and Coating Association for estimating the hazard potential of a chemical under normal workplace conditions. These risk estimates are indicated by a numerical rating given in each of three hazard areas (Health/Flammability/Reactivity) ranging from a low of zero to a high of 4. The presence of a chronic hazard is indicated with a yes. Consult HMIS training guides for Personal Protection letter codes which indicate necessary protective equipment.
PRIMARY ROUTE OF ENTRY: The way one or more hazardous ingredients may enter the body and cause a generalized-systemic or specific-organ toxic effect.
- ING: Ingestion - A primary route of exposure through swallowing of material
- INH: Inhalation - A primary route of exposure through breathing of vapors.
- SKIN: A primary route of exposure through contact with the skin.

SECTION IV: SPECIAL PROTECTION INFORMATION

Where respiratory protection is recommended, use only MSHA and NIOSH approved respirators and dust masks.
MSHA: Mine Safety and Health Administration
NIOSH: National Institute for Occupational Safety and Health

SECTION V: PHYSICAL DATA

EVAPORATION RATE: Refers to the rate of change from the liquid state to the vapor state at ambient temperature and pressure in comparison to a given substance (e.g. water).
pH: A value representing the acidity or alkalinity of an aqueous solution (Acidic pH = 1; Neutral pH = 7; Alkaline pH = 14)
VOC CONTENT: The percentage or amount in pounds per gallon of the product that is regulated as a Volatile Organic Compound under the Clean Air Act of 1990 and various state jurisdictions.
SOLUBILITY IN WATER: A description of the ability of the product to dissolve in water.

SECTION VII: REACTIVITY DATA

HAZARDOUS DECOMPOSITION: Breakdown products expected to be produced upon product decomposition by extreme heat or fire.
INCOMPATIBILITY: Material contact by extreme heat and the conditions to avoid to prevent hazardous reactions.
POLYMERIZATION: Indicates the tendency of the product's molecules to combine with themselves in a chemical reaction, releasing excess pressure and heat.
STABILITY: Indicates the susceptibility of the product to spontaneously and dangerously decompose.

SECTION VIII: SPILL AND DISPOSAL PROCEDURES

RCRA WASTE NOS: RCRA (Resource Conservation and Recovery Act) waste codes (40 CFR 261) applicable to the disposal of spilled or unusable product from the original container.

SECTION X: TRANSPORTATION DATA

CWA: Clean Water Act- Federal Law which regulates chemical releases to bodies of water.
RQ: Reportable Quantity - The amount of the specific ingredient that, when spilled to the ground and can enter a storm sewer or natural watershed, must be reported to the National Response Center, and other regulatory agencies.
TSCA: Toxic Substances Control Act - a federal law requiring all commercial chemical substances to appear on an inventory maintained by the EPA.

DISCLAIMER

All statements, technical information and recommendations contained herein are based on available scientific tests or data which we believe to be reliable. The accuracy and completeness of such data are not warranted or guaranteed. We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with out products, may be used. Zep assumes no liability or responsibility for loss or damage resulting from the improper use or handling of our products, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the products label and Material Safety Data Sheet.

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

ISSUE DATE: 07/21/98
SUPERSEDES: 06/20/94 Date printed: 06/24/99

ZEP BIG ORANGE
Product No: 0415 Industrial Solvent Degreaser

SECTION I -EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(770) 439-4200 *NON OFFICE HOURS, WEEKENDS*
(770) 432-2873 *AND HOLIDAYS, PLEASE CALL YOUR*
(770) 455-8160 LOCAL POISON CONTROL
(770) 552-8836
(770) 424-2048
(770) 424-4789
TRANSPORTATION EMERGENCY:
(770) 922-0923
CHEMTREC:
(800) 424-9300 TOLL FREE - ALL CALLS RECORDED
DISTRICT OF COLUMBIA:
(202) 483-7616 ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	(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 itching.
One 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 of repeated, may cause redness, itching, or irritation of the skin.
None of the hazardous ingredients are listed as carcinogens by IARC, NTP, & 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: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
INGEST: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: Wear nitrile gloves or use gloves with demonstrated resistance to the ingredients in this product.
EYE PROTECTION: Wear tight-fitting splash-proof safety glasses especially if contact lenses are worn.
RESPIRATORY PROTECTION: No special measures are required.
VENTILATION: Ventilation should be equivalent to outdoors. Use exhaust fans and open windows in enclosed spaces.

SECTION V - PHYSICAL DATA

BOILING POINT (F):	338-375	SPECIFIC GRAVITY:	0.85
VAPOR PRESSURE(mmHg):	N/A	EVAPORATION RATE (CCL4=1):	~33
VAPOR DENSITY(AIR=1):	N/A	pH(CONCENTRATE):	N/A
SOLUBILITY IN WATER:	EMULSIFIES	pH(USE DILUTION OF 1:20):	7.6
VOC CONTENT (CONCENTRATE):	92.7% 6.58 lb/gl		

APPEARANCE AND ODOR: ORANGE LIQUID WITH A CITRUS ODOR

(Continued on Page: 2)

Product No: 0415 SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(F) (METHOD USED): 121 (TCC)
FLAMMABLE LIMITS: LEL: N/A UEL: N/A
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 (e.g. Zep-0-Zorb). 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): N/A

(Continued On Page 3)

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CNS: Central Nervous System depressant which reduces the activity of the brain and spinal cord.
COR: Corrosive - Causes irreversible injury to living tissue (e.g. burns).
DESIGNATIONS: Chemical and common names of hazardous ingredients.
EIR: Eye Irritant Only - Causes reversible reddening and/or inflammation of eye tissues.
EXPOSURE LIMITS: The time weighted average (TWA) airborne concentration at which most workers can be exposed without any expected adverse effects. Primary sources include ACGIH TLVs, and OSHA PELs (TWA, STEL and ceiling limits).
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- OSHA: Occupational Safety and Health Administration
- PEL: Permissible Exposure Limit - A set of time weighted average exposure values, established by OSHA, for a normal 8-hour day and a 40-hour work week.
- PPM: Parts per million - unit of measure for exposure limits.
- (S) SKIN: Skin contact with substance can contribute to overall exposure.
- STEL: Short Term Exposure Limit - Maximum concentration for a continuous 15-minute exposure period.
- TLV: Threshold Limit Value - A set of time weighted average exposure limits, established by the ACGIH, for a normal 8-hour day and a 40-hour work week.

FBL: Flammable - At temperatures under 100F, chemical gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester.
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IRR: Irritant - Causes reversible effects in living tissues (e.g. inflammation) - primarily skin and eyes.
N/A: Not Applicable - Category is not appropriate for this product.
N/D: Not Determined - Insufficient information to make a determination for this item.
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SARA: Superfund Amendment and Reauthorization Act - Section 313 designates chemicals for possible reporting for the Toxics Release Inventory.
SEN: Sensitizer - Causes allergic reaction after repeated exposure.
TOX: Toxic - The probable lethal dose for a 70 kg (150 lb.) man is one ounce (2 tablespoons) or more.

(rev. 1/98)

SECTION III: HEALTH HAZARD DATA

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PRIMARY ROUTE OF ENTRY: The way one or more hazardous ingredients may enter the body and cause a generalized-systemic or specific-organ toxic effect.
- ING: Ingestion - A primary route of exposure through swallowing of material
- INH: Inhalation - A primary route of exposure through breathing of vapors.
- SKIN: A primary route of exposure through contact with the skin.

SECTION IV: SPECIAL PROTECTION INFORMATION

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MSHA: Mine Safety and Health Administration
NIOSH: National Institute for Occupational Safety and Health

SECTION V: PHYSICAL DATA

EVAPORATION RATE: Refers to the rate of change from the liquid state to the vapor state at ambient temperature and pressure in comparison to a given substance (e.g. water).
pH: A value representing the acidity or alkalinity of an aqueous solution (Acidic pH = 1; Neutral pH = 7; Alkaline pH = 14)
VOC CONTENT: The percentage or amount in pounds per gallon of the product that is regulated as a Volatile Organic Compound under the Clean Air Act of 1990 and various state jurisdictions.
SOLUBILITY IN WATER: A description of the ability of the product to dissolve in water.

SECTION VII: REACTIVITY DATA

HAZARDOUS DECOMPOSITION: Breakdown products expected to be produced upon product decomposition by extreme heat or fire.
INCOMPATIBILITY: Material contact by extreme heat and the conditions to avoid to prevent hazardous reactions.
POLYMERIZATION: Indicates the tendency of the product's molecules to combine with themselves in a chemical reaction, releasing excess pressure and heat.
STABILITY: Indicates the susceptibility of the product to spontaneously and dangerously decompose.

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CWA: Clean Water Act- Federal Law which regulates chemical releases to bodies of water.
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TSCA: Toxic Substances Control Act - a federal law requiring all commercial chemical substances to appear on an inventory maintained by the EPA.

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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: 6/12/00

GENERATOR: KOPPERS INDUSTRIES

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*	PO#: *N/A*	JOB#: *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : *NOTE: NO FREE LIQUIDS*

APPROVED: KQ *KRISTIN CLAYTON* DATE: *04/09/99 1:59:07 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

FIRST IN
MAINTENANCE
PRODUCTS
Zep

(1)

113 N N N+ 3L-1

(2)

213+1-2 N+ 3L-1

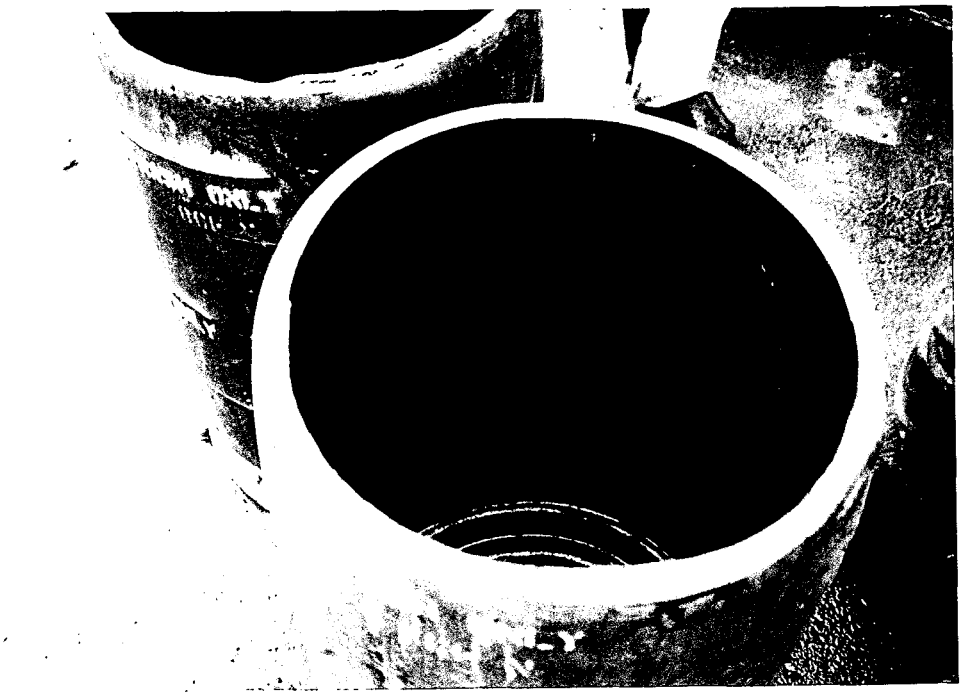
FIRST IN
MAINTENANCE
PRODUCTS
zep

(3)

113 N N N+ 3L-1

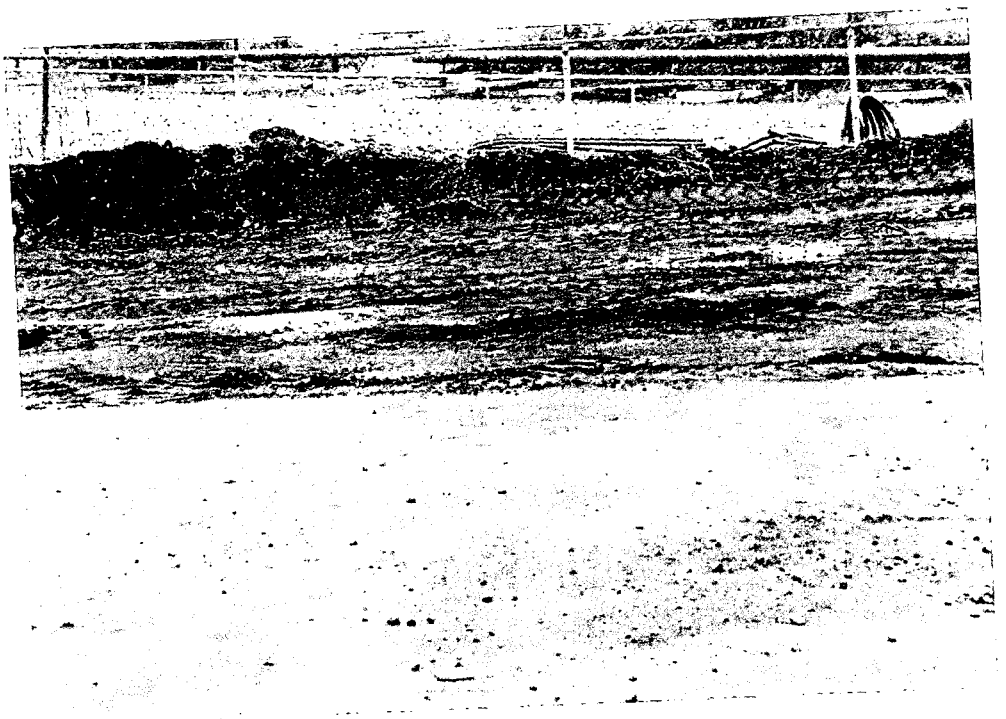
(4)

113 N N N+ 1L-1



(5) 113 N N N+ 1L-1

(5A) 113 N N N+ 1L-1



Benzene: Waste Rule

Koppers019112

BENZENE WASTE RULE

file

BENZENE WASTE RULE

SUBPART FF
WASTE OPERATIONS

SUMMARY

- March 7, 1990 - promulgation of Subpart FF (55 FR 8292)
- March 5, 1992 - EPA issued a stay of effectiveness (57 FR 8012)
- January 7, 1993 - EPA issued final rule lifting stay (58 FR 3072)
  Clarification of "point of waste generation"
- April 7, 1993 - Date of effectiveness of clarified final rule
  Affected facilities - Coke plants, chemical plants, refineries et al.
  Revised "90" day report due.
- Provisions that were changed:
  1. waste generated "after" ammonia stills;
  2. exemption raised from 1.0 Mg/yr to 2.0 Mg.yr;
  3. provided alternative for turnaround wastes in calculating TAB;
  4. additional compliance options for over 10.0 Mg/yr facilities.
- Effect on KII Plants:
  1. Coke plant - None! Revised "90" day report showed significant reduction due to gas blanketing but none due to revisions to the rule.
  2. Tar plnats - None! Revised "90" day report simply confirmed that initial submittal remains appropriate.
- KII Status: All plants in compliance! No controls required!
- Future Requirements: No reporting necessary unless a facility exceeds benzene emissions of 10 MG/year.

BENZ_UP

KOPPERS
INDUSTRIES

INTEROFFICE CORRESPONDENCE

To: See Below

From: W. E. Swearingen

Location: See Below

Location: K-1800

Subject: NESHAP BENZENE WASTE REPORTING REQUIREMENTS

Date: May 30, 1990

G. E. Trent III, Chicago
T. A. Golubic, Follansbee
K. J. Fitzgerald, Houston Tar
R. J. Morris, Woodward Tar
S. H. Tuggle, Woodward Coke
J. A. Oxford, Northwest Tar
J. M. Nash, Chicago
S. E. Lish, Follansbee
W. M. Geels, Houston
P. H. Williams, Woodward Tar
D. R. Hall, Woodward Coke

The final standards for **BENZENE WASTE OPERATIONS** became effective March 7, 1990 and are applicable to owner/operators of chemical plants and coke by-product plants. At each facility an initial benzene waste determination must be performed on all waste streams containing greater than 10% water. The initial report summarizing the regulatory status at each facility must be submitted to EPA no later than June 5, 1990.

The initial benzene waste determination has been completed for all affected KII facilities. The initial report which describes the regulatory status of each facility has been prepared for all the tar plants and the coke plant. The summary report which will be submitted to EPA has been prepared according to the protocol outlined in the standards and is in the format required by the agency.

Enclosed are documentation materials and a cover letter that has been prepared for submittal to EPA which satisfies the requirements for your plant. Please be sure that the plant manager or a designate in his absence signs the cover letter and sends via certified mail, return receipt requested, to EPA at the listed address as soon as possible but **no later than June 4, 1990.**

Make copies of the signed cover letter and send one copy to your regional EPA office and send one copy to me and keep at least one copy for your files. If you have any questions about the regulatory status of your plant please call me.

W. E. Swearingen

W. E. Swearingen

cc: J. R. Batchelder, K-1701 (all attachments)
L. F. Flaherty, K-1750 (all attachments)
D. N. Sweet, K-1750 (all attachments

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone (412) 227-2001

May 31, 1990

William K. Reilly, Administrator
Environmental Protection Agency
401 M Street, S.W. W1200
Washington, DC 20460

Certified Mail
Return Receipt
Requested

Subject: Benzene Waste Operations
Initial Facility Report

Koppers Industries, Inc.
Northwest Terminal
Portland, Oregon
EPA ID No. ORD027734359

Dear Mr. Reilly:

Pursuant to the requirements of the final standards for "BENZENE WASTE OPERATIONS" which became effective March 7, 1990, we are submitting herewith our initial report for this facility. At this facility the total annual benzene quantity contained in waste streams applicable to the initial determination is 0.000 Mg/yr.

There are no waste streams at this facility which contain water at a concentration greater than 10%; hence, an initial determination was not required. There are no process wastewater streams nor product drawdowns generated at this plant. Stormwater water runoff is collected and discharged according to the requirements and limitations of NPDES Permit No. 100419.

Since the total annual benzene quantity in waste streams at this facility is less than 1 Mg/yr; no future reports to the agency are anticipated unless process changes are made that would cause the total annual benzene quantity to increase to 10 Mg/yr or more.

If you have any questions concerning this report, please contact William E. Swearingen at (412) 227-2883 or call me at this facility at (503) 286-3681.

Sincerely yours,

John A Oxford

John A. Oxford
Plant Manager

cc: Director
Air and Waste Management Division
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

Mailed Certified
Mail 6-1-90 JAO

PS Form 3811, July 1983 447-845

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:

DIRECTOR
AIR & WASTE MANAGEMENT DIV EPA
1200 SIXTH AVE
SEATTLE WA 98101

4. Type of Service:

☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail

Article Number

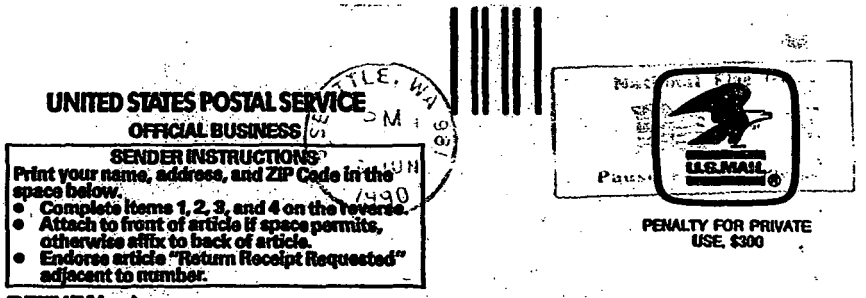
Always obtain signature of addressee or agent and DATE DELIVERED.

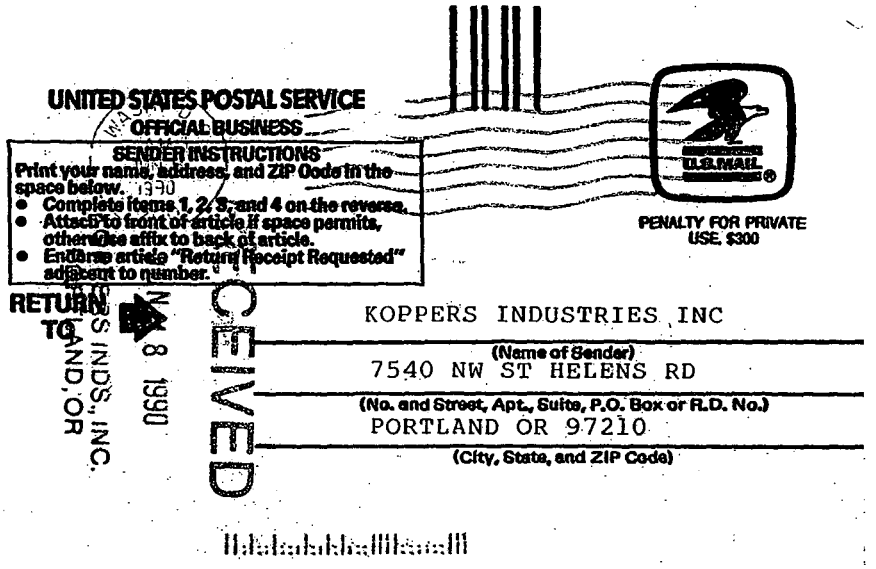
5. Signature – Addressee
X J. Mackay

6. Signature – Agent
X

7. Date of Delivery
JUN 6 1990

8. Addressee's Address *(ONLY if requested and fee paid)*


UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS
SENDER INSTRUCTIONS
Print your name, address, and ZIP Code in the space below.
• Complete items 1, 2, 3, and 4 on the reverse.
• Attach to front of article if space permits, otherwise affix to back of article.
• Endorse article "Return Receipt Requested" adjacent to number.
RETURN TO
KOPPERS INDUSTRIES INC
(Name of Sender)
7540 NW ST HELENS RD
(No. and Street, Apt., Suite, P.O. Box or R.D. No.)
PORTLAND OR 97210
(City, State, and ZIP Code)
U.S.MAIL
PENALTY FOR PRIVATE USE, $300


UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS
SENDER INSTRUCTIONS
Print your name, address, and ZIP Code in the space below.
• Complete items 1, 2, 3, and 4 on the reverse.
• Attach to front of article if space permits, otherwise affix to back of article.
• Endorse article "Return Receipt Requested" adjacent to number.
U.S. MAIL
PENALTY FOR PRIVATE USE, $300
RETURN TO
KOPPERS INDUS., INC.
PORTLAND, OR
NOV 8 1990
RECEIVED
KOPPERS INDUSTRIES INC
(Name of Sender)
7540 NW ST HELENS RD
(No. and Street, Apt., Suite, P.O. Box or R.D. No.)
PORTLAND OR 97210
(City, State, and ZIP Code)

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:

WILLIAM K REILLY, ADMINISTRATOR
ENVIRONMENTAL PROTECTION AGENCY
401 M STREET SW W1200
WASHINGTON DC 20460

4. Type of Service:

☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail

Article Number

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery JUN 07 1990

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

KOPPERS INDUSTRIES

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

Telephone: (503) 286-3681
FAX: (503) 285-2831

April 7, 1993

Carol M. Browner, Administrator (A-100)
Environmental Protection Agency
401 M. Street, S. W.
Washington, DC 20460

Certified Mail
Return Receipt
Requested

Subject: Benzene Waste Operation
Initial Facility Report

Koppers Industries, Inc.
Northwest Terminal
Portland, Oregon
EPA ID NO. ORD027734359

Dear Ms. Browner:

Pursuant to the requirements of the revised final standards for "BENZENE WASTE OPERATIONS" which became effective JANUARY 7, 1993, we are submitting notification that our initial report which was submitted to the Agency on MAY 31, 1990, has been reviewed in light of the clarifying amendments, and continues to be an accurate representation of the benzene waste operations at this facility.

If you have any questions concerning this report, please contact William E. Swearingen at (412) 227-2883 or call me at this facility at (503) 286-3681.

Sincerely Yours,

John A. Oxford,
Plant Manager

CC: Director
Air and Waste Management Division
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

April 7, 1993

Carol M. Browner, Administrator (A-100)
Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

Certified Mail
Return Receipt
Requested

Subject: Benzene Waste Operations
Initial Facility Report

Koppers Industries, Inc.
Northwest Terminal
Portland, Oregon
EPA ID No. ORD027734359

Dear Ms. Browner:

Pursuant to the requirements of the revised final standards for "BENZENE WASTE OPERATIONS" which became effective January 7, 1993, we are submitting notification that our initial report which was submitted to the Agency on May 31, 1990, has been reviewed in light of the clarifying amendments, and continues to be an accurate representation of the benzene waste operations at this facility.

If you have any questions concerning this report, please contact William E. Swearingen at (412) 227-2883 or call me at this facility at (503) 286-3681.

Sincerely yours,

John A. Oxford,
Plant Manager

cc: Director
Air and Waste Management Division
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

TO
JOHN OXFORD
PORTLAND

As we discussed!

Please retype on Plant letterhead. Sign and send out today to EPA in Washington and Seattle.

Send me a copy of signed letter.

FROM
W. E. SWEARINGEN
PHONE 412-227-2883 **FAX 412-227-2423**

TRANSMIT REPORT

1998,10-26 17:41

COM No.	REMOTE STATION	START TIME	DURATION	PAGES	RESULT	USER ID	REMARKS
026	1 503 283 5703	10-26 17:38	03'23	08/08	OK		

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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: Greg Brown, ODOT DATE: 10/26/98

FROM: Amos Kameker TOTAL # OF PAGES: 10

Here's the MSDS and our Shipping Guide for the pencil pitch. Call if you have any questions —

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

Greg Brown, Haz. Mat. Specialist #283-5742
Taylor Trucking, LLC
Wants MSDS on file

GLUMAC INTERNATIONAL

PORTLAND SAN FRANCISCO SACRAMENTO LOS ANGELES SEATTLE MADRID

MEETING MINUTES

CC: Amos Kamerer - Portland
Christian Neilsen - TTI

TO: James Dietz, P.E. FROM: Jim E. Laitala, P.E.

AT: Koppers DATE: March 26, 1997

PROJECT: Koppers PROJECT NO.: 297K4001A

MEETING SUBJECT: Meeting #1

COPY TO: All Attendees FILE COPY: ☐

Meeting Date/Time: 3/11/97 Meeting Location: Koppers

Attendees: *(Persons shown in Italics were not present)*

Steve Straus - Glumac	James Dietz - Koppers	Dan Pedersen - Tar Tech
Lynn Andrews - Glumac	Amos Kamerer - Koppers	
Jim Laitala - Glumac	Christian Nielsen - Tar Tech	

Item No.	Issues/Actions
1.	Will install two new 70' diameter x 60' high tanks now.
2.	One additional tank of same size to be installed in future.
3.	API-650 Design Tanks.
4.	Tanks to be concrete, with center post similar to those used by Tar Tech in Australia. Need to arrange with correct bearing types for soil. Conditions at site (min. 2500 psi).
5.	Ships can pump at rate of 400 metric tons/hour at 8 bar (116 psi). Pipe to be 8" with heat trace. Tar Tech to verify.
6.	Pitch flows - Use metric tons/hour. One metric ton = 2204.6 lbs.
7.	Flow - Use liters per minute. (One gallon per minute = 3.7854 liters per minute)
8.	Oil in hot oil system to match existing. (Therminol 55) Verify.
9.	Koppers is using steam heat trace with jacketed valves now.
10.	Don't use braided hose for heat trace on valves - doesn't work well. Use all welded pipe for heat trace.

Item No.	Issues/Actions
11.	Use Allen Bradley PLC 5 for controls.
12.	3-1/2 to 4 million BTUH load for new tanks. Verify.
13.	Fume Combuster - To have heat recovery to hot oil system. Work with Dick Law Ponder Burner. Jim to get general spec and size info to Glumac.
14.	Nitrogen blanket can be used in tanks.
15.	New equipment and piping A. Tanks B. Pitch circulating pumps C. Pitch loading pumps, nominal 40 HP (Qty. Of 3) verify. D. Ship transfer line (8" pipe with hot oil trace) E. Hot oil heater - Use (E) now-plan on new in future F. Fume combuster (new) with heat recovery to hot oil system
16.	Use nitrogen for pneumatic control.
17.	Cameron McKernan to do dockside arrangement.
18.	Provide fee proposal for Phase I now. Fee proposal for Phase II can be done after Phase I estimate is complete.
19.	New electric service required (approx. 300 kva).
20.	Motor control center, including: • Incoming and instrumentation (volt and amp meters) section. • PLC Section. • Control Section, including (1) 250-500 volt-amp CPT (control power transformer) for common 120 volt control.
21.	Seven temperature control loops (4 - 20 MA signals).
22.	Two (2) new unblended track loading stations.
	END OF ITEMS

PROJECT SCHEDULE

(PROJECT TO BE DONE IN TWO PHASES)

PHASE I - SCHEMATIC DESIGN AND ESTIMATE

1. Glumac - Estimate (± 20%)
2. Equipment Prices
   A. Hot oil recovery and fume combuster Ponder Burner.
3. Provide AutoCAD layout of site - use for schematic design for estimating.
4. Route for power (LAA). Assume new power to site. Assume 300 KVA load on electrical.
5. Need estimate in hand by end of April.
6. Price from Danes by week of 4/15/97.
7. Look into internet tie - for shipping drawings to Koppers in Pittsburgh, PA, and Tar Tech in Denmark.

PHASE II - DESIGN AND CONSTRUCTION DOCUMENTS

1. Details for construction and routing.
2. Ladder diagrams - electrical
3. Loop diagrams - electrical
4. Construction documents

RESPONSIBILITIES

GLUMAC TO PROVIDE:

1. Background drawing (site) on AutoCAD ASAP.
2. Name of soils Engineer - Glumac to contact:
   A. Koppers to contract for soil bearings.
3. Local design services (Tar Tech to do process engineering and spec for equipment and piping) - Civil, routing drawings for piping, estimating.
4. Work with Christian and Dan on piping, valves, and electrical.
5. Work with James on hot oil system.

DANES TO PROVIDE:

1. General piping routes by 4/4/97.
2. They need site plan ASAP.
3. General tank arrangement by 4/4/97.
4. Pipe and valve spec.
5. P&ID's by 3/21/97.
6. Load for heater and fume burner to Glumac by 3/21/97.
7. Price information.
8. Dan to give electrical load to Lynn Andrews.
9. Dan to pick MCC location.

The above constitutes our understanding as to items discussed and decisions made at this meeting. If any errors or omissions are noted, please provide written response within five days of receipt.

T:\297K4001\MEETINGS\MEET1.JBL Printed: 3/26/97

03/27/97 08:42 012/012
Koppers019128

Author: AMOS KAMERER at PITT
Date: 5/10/99 4:13 PM
Priority: Normal
TO: BILL MEISINGER at TECHCTR
CC: Jim Dietz at PITT
Subject: List of Events
---------- Message Contents ----------

Bill,

The following per our conversation. I will fax a copy to be safe.

3/24/99 - Harder meeting at terminal office. Scheduled to start Monday 4/5. They est. 10 days to excavate and back fill, 3 weeks to drive the piling.

3/31/99 - Mike Hayward, NWN and I finally get together, re my question of where do they want us to put the excavation soils on the back property? He says that he did not realize that we would be taking this much soil out, for the foundation. He will need to talk to Sandy.

4/1/99 - Sandy, soils have to be removed off site, we are to work with Rob Ede @ Hahn. She asked about the time to drive the piles - 10 to 15 days. She is going to consider this a construction action, not a clean up activity. She said that she would "hold her breath" while we are doing this work, that nothing develops with the ODEQ. She will send the letter to proceed.

4/1/99 - Rob/Hahn. We need to test the soils for hazardous status. He will call Chem Waste to get some quotes on the disposal.

4/2/99 - Receive approval letter to proceed from Sande/NWN. Rob makes arrangements to drill for samples on Monday 4/5/99. Hahn will do this work under their contract with NWN, to expedite the work. NWN will bill KII, accordingly.

4/2/99 - Harder Mechanical writes letter requesting indemnification.

4/5/99 - Samples taken today by Hahn and Geo Engineers.

4/6/99 - Sandy, NWN has decided that they must review all of this with ODEQ. She has a meeting with them tomorrow on other matters and will push to get this done ASAP. She understands that there is no other design options for the project and what our construction schedule is. She thinks that ultimately the ODEQ will say OK and ask for something, perhaps another well, they always want something. I had Erin drop off a copy of the final KPFF foundation drawing to NWN.

4/8/99 - Sandy, ODEQ wants their staff engineer to review the project. Sandy said that we should concentrate all of the discussion on the tank, as she she does not see the pipe foundations as an issue. She is sending the tank foundation drawings and the 2 Geo letter's to the ODEQ today. She is sure that every thing will be fine, we just need to let this run's it course. Re starting the work now, that's up to KII, do so at your own risk. Jim and I talk to Sandy on a conference call, and she says that it will be OK for us to start the excavation work on the project at this time.

4/9/99 - The results from the soil samples show that they are nonhazardous. RM CAT quotes KII on the disposal through TPS Technologies.

- Some where in this time frame and I can not pin point the date, Steve Kifer said that the NWN letter of approval to proceed is in correct regarding the proper sections of reference, and suggests that we ask for a correct letter.

W/O 4/12 to 4/16/99 - Was spent responding to Harder's indemnification request. Harder and R M Cat started the removal of the black top and concrete from the tank, and other area's.

4/19/99 - R M Cat started the excavation and transport to TPS of the contaminated soils. This was completed on Monday 4/26/99, after many delays as a result of unknown concrete foundations the had to be jack hammered and removed. KII receives the revised letter from NWN, saying that we must have ODEQ approval before proceeding.

4/21/99 - Sandy, ODEQ is asking questions after Michelle's review, including the use of auger-cast piling. I said, no way! She said, OK then we have to have a meeting to review all of this! She to set up with Mike Rosen, ASAP.

4/26/99 - Sandy, meeting set up for Wed. 4/28.

4/27/99 - Sandy, the ODEQ engineer Michelle, is out of town on a personal matter and is not available until 5/5. I asked, does the ODEQ have a legal right to stop us if we start, pending their review and approval? "Yes, in a broad and wider point of view"!

4/28/99 - Amos, Rob Ede and Eric Bliske, ODEQ have a telephone conference call that lasts about 45 minutes to review Michelle's concerns. Rob and I answered every question. Eric says that they will still want to have a meeting with Michelle to do the same. Eric states, in response to a question of mine, that the ODEQ has authority to do this review and give thier approval for this work, as a result of the agreement that they have with NWN.

5/5/99 - We finally have the meeting with ODEQ.

5/7/99 - Sandy receives a written request form ODEQ. She and Amos give their verbal assurances to do what has been requested.

5/10/99 - Sandy faxes copies of the ODEQ request and her response. Sandy will write KII tomorrow, the letter that we can proceed with the project.

Bill, I think that this covers most of what happened; but remember, I have CRS!

Jim, I will be in the office 1st thing, I will need to leave for the union metting at 8:45AM. I will have my cel phone with me all day.

Amos

Tar Tech International A/S

Avernakke • DK-5800 Nyborg • Denmark • Phone +45 63 31 32 60 • Fax +45 63 31 32 61 • Reg. nr. 178 609

TELEFAX TO : 0 00 412 826 39 99

Koppers Industries, Inc.
Harmarville Technical Center
1005 William Pitt Way
Pittsburgh, PA 15238
USA
Att.: Mr. Jim Dietz
Phone (412) 826-3968

Nyborg, 3 February 1997
9956-002\CAN/kah

Dear Jim,

Subject : Liquid Pitch Marine Terminal.

with reference to our pleasant telephone conversation last Friday, we hereby forward our thoughts of emission level at a typical liquid pitch import terminal. Below, please find some estimated flows from the system. The conditions listed should be realistic.

Further to the two operating conditions, there will be emission caused by the heating and cooling of the storage tank. Normally, this emission is non-measurable due to a very low flow rate.

Enclosed, please find a flow diagram, dwg. no. 99-56-2A-01, rev. 00, and a brief description of our fume scrubber system.

Operating Conditions, Ship Transfer

Condition	Before transfer	After transfer
Ship		
Pitch temperature	200°C (392°F)	-
Fume temperature	-	175°C (347°F)
Storage tank		
Pitch temperature	200°C (392°F)	200°C (392°F)
Fume temperature	150°C (302°F)	175°C (347°F)

Anticipation

The fume volume in the storage tank is 20% larger than the pitch transfer volume, due to the construction of the roof.

Yearly throughput 30.000 MT

Yearly flow in the system

A	B	C	D
30.000 t	17.500 Nm^3	1.200 Nm^3	16.300 Nm^3

Yearly emission due to transfer from ship to storage tank.

With fume return to ship 1.200 Nm^3

Without fume return to ship 17.500 Nm^3

If the ship is equipped with a closed level measuring system and a pressure/vacuum relief valve, other emission should not occur from this operation.

Operating Condition, Transfer from Storage Tank to Railroad Tanker.

Condition	Before transfer	After transfer
Storage tank		
Pitch temperature	200°C (392°F)	200°C (392°F)
Fume temperature	150°C (302°F)	150°C (302°F)
Railroad tanker		
Pitch temperature	-	200°C (392°F)
Fume temperature	20°C (68°F)	150°C (302°F)

Anticipation

Railroad tanker, capacity 20.000 Gallons
Railroad tanker, normal load 18.000 Gallons

Yearly throughput 30.000 MT

Yearly flow in the system

E	F	G	H
30.000 t	25.900 Nm^3	17.300 Nm^3	8.600 Nm^3

Yearly emission due to transfer to railroad tanker.

With fume return to storage tank	8.600 Nm^3
Without fume return to storage tank	25.900 Nm^3

Extra

From the disconnection of the pitch loading arm to closing of the manhole cover on the railroad tanker, there will be approx. 30-120 sec. of open connection to the liquid pitch in the railroad tanker.

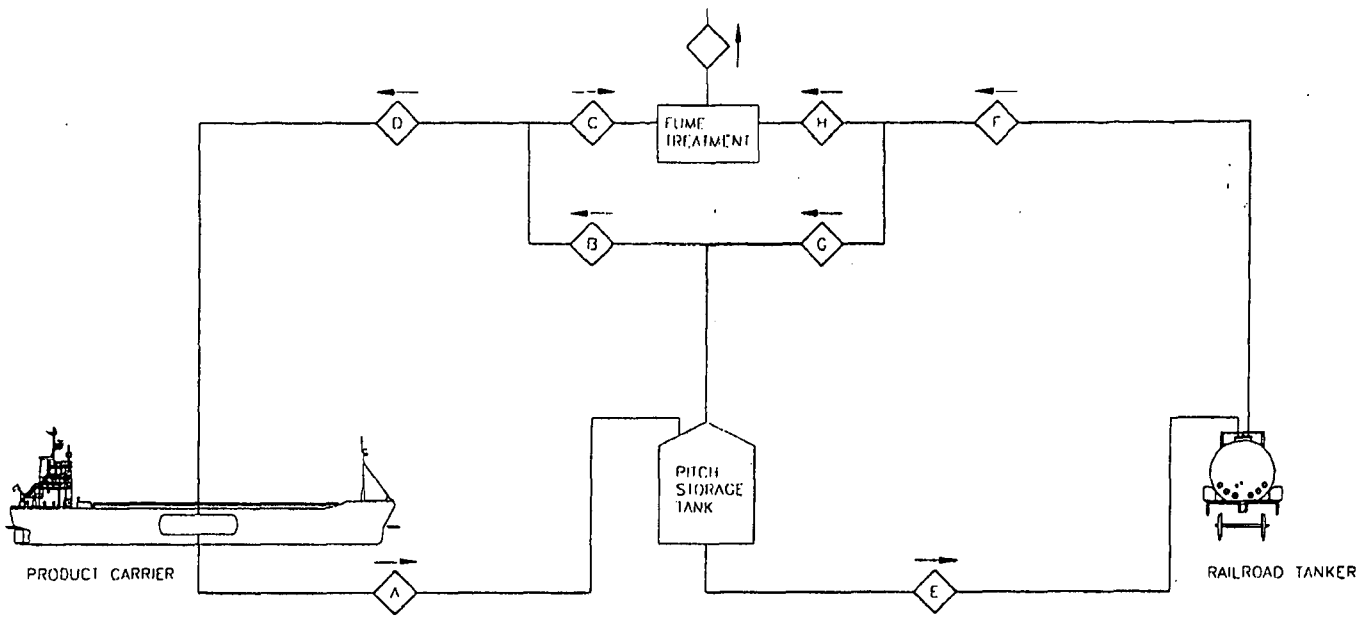
We hope the above information is sufficient, otherwise please do not hesitate to contact the undersigned.

Best regards

Tar Tech International A/S

Christian Arndal Nielsen

Enclosures



	A	B	C	D	E	F	G	H
PRODUCT	PITCH	FUME	FUME	FUME	PITCH	FUME	FUME	FUME
FLOW PER YEAR	30000 t	17500 Nm³	1200 Nm³	16300 Nm³	30000 t	25900 Nm³	17300 Nm³	8600 Nm³

Tar Tech International A/S

Avernakke • DK-5800 Nyborg • Denmark • Phone +45 63 31 32 60 • Fax +45 63 31 32 61

CLIENT:	KOPPERS INDUSTRIES INC., PORTLAND	TO TENDER No.:	99-56
CLIENT REF:		TO CONTRACT No.:	
PROJECT:	PORTLAND HARBOUR TERMINAL		
DWG. TYPE:			
DWG. SIZE:			

	DATE:	NAME:	DETAIL FROM DWG.:	DWG. SIZE:	SCALE:	DWG. No.:	REV. No.
DRAWN:	31.01.97	SJ	SUBSTITUTE FOR DWG.:	A3	~	99-56-2A-01	00
CHECKED:	31.01.97	CAN	SUBSTITUTED BY DWG.:				
LATEST REV.:			DOS NAME: 2A-01				

Tar Tech International A/S

Avernakke • DK-5800 Nyborg • Denmark • Phone +45 63 31 32 60 • Fax +45 63 31 32 61 • Reg. nr. 178 609

TELEFAX TO : 0 00 1 412 826 39 99
Koppers Industries, Inc.
Harmaville Technical Center
1005 William Pitt Way
Pittsburgh, PA 15238
USA

Att.: Mr. Jim Dietz

Nyborg, 3 February 1997
9956-003\CAN/kah

Dear Jim,

Subject : **Liquid Pitch Marine Terminal.**
Basic Design.

with reference to the above-mentioned project, we hereby forward our proposal for basic engineering, step no. 1, at a price of :

USD 50,000.00

The basic design package will consist of the documents listed in the enclosed "Document Overview".

We look forward to hearing from you.

Best regards

Tar Tech International A/S

Christian Arndal Nielsen

Encl. : "Document Overview" (3 pages).

Proposed Documents / Drawings	Estimated Quantity	Description
GENERAL DOCUMENTS		
General Installation.	1	A general description of the plant from ship transfer to HTO system, including construction details considered to be TTI specialities. Also logic diagrams for typical control circuits will be included.
Equipment List	1	A detailed list, stating the brand, type, dimension, specifications and supplier of each of the identified components in the system, based onTTI suppliers.
GENERAL DRAWINGS		
Area Plan	1	Location of buildings, tanks, pipe routings and main components.
		Required information: - Standards for unloading, transfer and storage of petrochemical products (pitch and HTO, used for distance requirements between equipment - Design Standard - Area classification - Fixed scale area plan with levels, indicating existing buildings (obstructions), HVAC, roads, etc. Perhaps indicating prefered pipe routing. - Special requirements from the harbour authority.
PROCESS DOCUMENTS		
Pitch and Fume Piping. Design Calculations	1	Pressure loss calculations.

Koppers019136

Proposed Documents / Drawings	Estimated Quantity	Description
Heat Transfer Oil Plant. Design Calculations	1	Contains a description of the rules and backgrounds of the HTO plant design calculations. All calculations necessary to determine sizes, dimensions, capacities, energy consumption, etc., are covered by this document. Examples of calculations are : • Heat loss calculations on tanks and pipes, including selection of insulation. • Pressure loss calculations on HTO pipes, including selection of pipe sizes, pumps, control valves, etc.
		Required information: - Data sheet on heat transfer oil.
PROCESS DRAWINGS		
P&I Diagram. Pitch, Fume and HTO System	2	
Flow Diagram. Pitch and Fume System	1	
Flow Diagram. HTO System	1	
		Required information: - P&I and flow diagram of existing HTO system (for interface). - Information on existing HTOplant; supply pressure, temperature and flow. - required pitch unloading capacity and transfer capacity to other locations
CIVIL DOCUMENTS		
Design Loads	1	Load of main components and equipment masses
Total		

Koppers019137

Required Inforamtion :

Standards for unloading/loading, transfer and storage of petrochemical products (pitch and HTO).

Area Classification.

Fixed scale area plan with levels, indicating existing buildings (obstructions), HVAC, roads, etc., perhaps indicating prefered pipe routing.

Special requirements from the harbour authority.

Data sheets for heat transfer oil.

P&I and flow diagrams of existing heat transfer oil system (for interface to existing HTO plant).

Area plan, stating available location(s).

Koppers019138

Tar Tech International A/S

Avernakke • DK-5800 Nyborg • Denmark • Phone +45 63 31 32 60 • Fax +45 63 31 32 61 • Reg. nr. 178 609

Koppers Industries, Inc.
Harmarville Technical Center
1005 William Pitt Way
Pittsburgh, PA 15238
USA
Att.: Mr. Jim Dietz
Phone (412) 826-3968

CC: AMOS KAMBEROFF
→ PORTLAND

Nyborg, 21 January 1997
CAN/ta

Dear Jim,

Subject : Liquid Pitch Marine Terminal.

with reference to our pleasant telephone conversation of yesterday, we hereby forward a typical Tender Specification for a Liquid Pitch Marine Terminal.

In our experience, it is very important to determine the scope of work at a very early stage of the project discussions. Therefore, we would like you to go through the document and select the items which the Portland project should include.

I especially recommend the installation of the described fume system which minimizes the emissions to the surroundings in a very efficient way.

As for payment, TTI's hourly engineering rate is 500 DKK (at the current rate of exchange this corresponds to approx. 81 USD), but if you prefer the tender to be based on a lump sum, we can also offer a complete engineering package.

Best regards

Tar Tech International A/S

Christian Arndal Nielsen

Enclosures

Tar Tech International A/S

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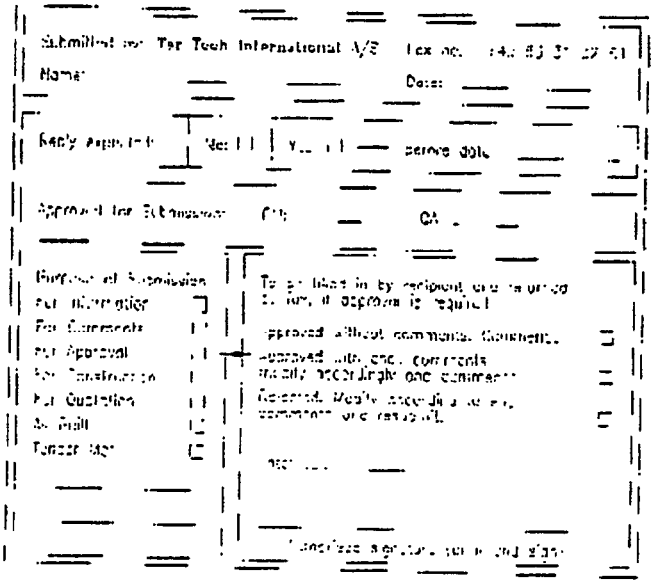
KOPPERS INDUSTRIES INC.

PORTLAND

Liquid Pitch Marine Terminal Project

Tender Specification



Contents

1 Scope of Work 1

2 Design Criteria 1
2.1 Process Description 1
2.1.1 Introduction 1
2.1.2 Liquid Pitch Unloading from Ship 1
2.1.3 Liquid Pitch Storage 1
2.1.4 Liquid Pitch Loading to Road/Railroad Tanker 2
2.1.5 Pitch Fume Treatment 2
2.1.6 Pitch Fume Return System 2
2.1.7 Heat Transfer System 2
2.1.8 Nitrogen Vaporizer Plant (by Others) 2
2.2 Material Specification and Plant Duty 3
2.2.1 Liquid Pitch (by Others) 3
2.2.2 Ship (by Others) 3
2.2.3 Liquid Pitch Storage 3
2.2.4 Road/Railroad Tanker (by Others) 3
2.2.5 Heat Transfer System 3
2.2.6 Pitch Fume Treatment 4
2.2.7 Nitrogen Vaporizer Plant (by Others) 4
2.3 Operating Philosophy 4
2.3.1 Ship Unloading 4
2.3.2 Temperature and Pressure Control 5
2.3.3 Road/Railroad Tanker Loading Sequence 5

3 Battery Limits 5
3.1 Liquid Pitch and Fume System 5
3.2 HTM System 6
3.3 Control System 6

4 Utilities Required for Start-Up of Plant 6

5 Enclosures 6

1 Scope of Work

This specification covers the design of 1 (one) Liquid Pitch Import Terminal for Koppers Industries Inc. at Portland, Oregon.
Work included in or excluded from the scope of work can be seen from document no. 99-56-Q-0 "Responsibility Matrix", rev. 00, which gives a breakdown of the activities for which TTI and Koppers respectively, shall be responsible.

2 Design Criteria

2.1 Process Description

2.1.1 Introduction

Liquid pitch for use in the aluminium smelter paste plant is delivered by ship to the Koppers import terminal. The pitch is initially pumped to one of the two liquid pitch storage tanks and subsequently transferred to the customers paste plant by road tanker/rail road tanker.

2.1.2 Liquid Pitch Unloading from Ship

Every xx days liquid pitch will be delivered by a ship with a carrying capacity of 4200 Mt.

See paragraph 2.2.2 "Ship ".

The pitch unloading piping at the quayside will be connected via flexible hoses to the piping on the ship's deck. The pitch will then be transferred by the ship's pumps at a rate of 400 t/h via a heated pipeline to the storage tanks located as shown in drawing no. 99-56-02-01, rev. 00

The pitch unloading pipelines are heated via heat transfer medium (HTM) tracer pipes.

2.1.3 Liquid Pitch Storage

The storage facilities will consist of one 5250 Mt insulated and heated liquid pitch storage tank. The pitch will be stored at a temperature of 390°F.
The tank will be fitted with two heating coils and the heat will be provided by circulating HTM through the coils.
Two liquid pitch circulation pumps (NPP-001 and NPP-002, one in operation and one standby) will be installed to ensure the homogenity of the pitch. All recirculation pipes and pumps will be heated by HTM. The piping to the two pumps will be connected in such manner that any of the two pumps can provide recirculation to the tank in the event of failure on one of the pumps.

2.1.4 Liquid Pitch Loading to Road/Railroad Tanker

The pitch will be transported to the smelter paste plant by road/railroad tanker with a capacity of 30/50 t.
Loading of the road/railroad tanker will be carried out by means of the liquid pitch pumps (NPP-001 or NPP-002) and a hydraulic loading arrangement connected to the manhole on the road/railroad tanker. Location as shown in drawing no. 99-56-02-01, rev. 00. All loading piping will be heated by means of HTM.

2.1.5 Pitch Fume Treatment

One pitch fume scrubber unit will be installed. Emissions from the liquid pitch import terminal will be cleaned (PAH content after cleaning : < 50 mg/m^3) before they are vented to the atmosphere.

2.1.6 Pitch Fume Return System

Pitch fume return pipes will be installed

(a) between ship and liquid pitch storage tank and
(b) between road/railroad tanker and pitch fume scrubber unit

The volume of fumes which will be displaced by the pitch will be returned to the ship instead of to the pitch fume scrubber. This will prolong the effective life of the activated carbon in the pitch fume scrubber.

2.1.7 Heat Transfer System

Heat will be required to maintain the liquid pitch at the necessary temperature in the
(a) liquid pitch storage tank
(b) ship unloading line
(c) pitch circulation lines and pumps
(d) road/railroad tanker loading lines

and to maintain the pitch fume at the necessary temperature in the
(e) pitch fume return lines

The heat will be supplied to these users via separate HTM tracing loops which again will be supplied from the HTM main loop including two (electrical) HTM heaters.

2.1.8 Nitrogen Vaporizer Plant (by Others)

In order to minimize the change in the melting point of pitch caused by storage in atmospheric air, the liquid pitch storage tank is blanketed with nitrogen. The nitrogen will be controlled by the PLC by means of a pressure transmitter and a control valve.

2.2 Material Specification and Plant Duty

2.2.1 Liquid Pitch (by Others)

Koppers, Portland receives xxx t of liquid pitch per year from Posochem.

2.2.2 Ship (by Others)

Capacity [t] :	1200
Storage temperature [°F] :	385
Unloading Rate [t/h] :	100
Delivery Cycle :	every xx days

2.2.3 Liquid Pitch Storage

Number of liquid pitch storage tanks	1
Gross capacity [t] :	5750
Net capacity [t] :	5250
Normal pitch storage temperature [°F] :	385 ± 5

Design Conditions

According to API 650	
Max. temperature [°F] :	480
Max. / min. pressure [mm WG] :	+ 200 / - 50

2.2.4 Road/Railroad Tanker (by Others)

Capacity [t] :	30/50
Loading frequency	
Normal :	KOPPERS INDUSTRIES INC. TO CONFIRM
Max.:	KOPPERS INDUSTRIES INC. TO CONFIRM
Loading rate [t/h] :	50

2.2.5 Heat Transfer System

HTM type :	XXX
HTM maximum temperature [°F] :	570
HTM operating temperature [°F] :	390-480
HTM operating pressure [kPa] :	400-950
HTM storage tank capacity [Gal] :	4500
HTM expansion tank capacity [Gal] :	1500
HTM (electrical) power input [kW] :	2 x 600

2.2.6 Pitch Fume Treatment

Approx. PAH concentration in the pitch fume [mg/Nm^3] :	30.000-50.000
Pitch fume temperature [°F] :	300-390
Pitch fume pressure, normal [kPa] :	10
Pitch fume flow rate [Nm^3/h] :	≤ 400
Scrubber efficiency . PAH content less than [mg/Nm^3] :	50

2.2.7 Nitrogen Vaporizer Plant (by Others)

Annual consumption of nitrogen [Nm^3] :	XXX
Peak level [Nm^3/h] .	100
Outlet pressure [kPa] :	800
Purity [%] :	≥ 96

2.3 Operating Philosophy

The Liquid Pitch Import Terminal will be equipped with an Allen-Bradley programmable logic controller (PLC) of the PLC-5 family. The operator interfaces to the control system through a Panel View installed in a control desk located locally in the control room of the pump house.

The main purposes of the PLC are to monitor all instrumentation and operations, secure safety interlocks, control temperature and pressure loops and secure an alarm history.

The plant is operated manually by local operators assisted by the PLC equipment

The plant is a storage facility which in standby situations can be operated as an unmanned plant. Operators are only required during ship unloading and road/railroad tanker loading operations (driver acts as plant operator).

Remote start of operations, e.g. pump operations, will not be allowed / provided, since a visual inspection of the process conditions will be necessary.

The following automatic functions will be carried out by the PLC :

2.3.1 Ship Unloading

An automatic pitch inlet valve and a continuous measuring level detection system on the pitch storage tank are connected to the PLC. The system is prepared for a possible future installation of additional tank capacity, and the PLC will automatically redirect the pitch to the next tank, when the first tank is full

2.3.2 Temperature and Pressure Control

The PID controller integrated in the PLC will take care of maintenance and control of the temperature and pressure loops.

2.3.3 Road/Railroad Tanker Loading Sequence

When the operator from the loading panel requests a batch of pitch to be loaded into a road/railroad tanker, the PLC will perform the following :

- change the status of the automatic pitch valves from circulation mode to dosing mode
- automatically open the pitch dosing valve and enable high suction status of the fume return system

When the pitch level reaches the high level alarm in the road/railroad tanker, the pitch batching will automatically stop and the system will return to circulation mode.

From the Panel View the following process information can be monitored .

- Motor status (running, standby, MCC fault, field fault, running hours)
- Temperature, pressure and levels
- Process alarms (temperature, pressure, level, time-outs, equipment in faulty status)
- Equipment status (position of valves)

It must be emphasized that the plant is designed for local operation. However, it is desirable to monitor the plant conditions remotely.

As an option, the system could be extended with a DH+ or fiber optic communication to the existing smelter to be incorporated in the existing supervisory system Most commonly, this is done by the client himself, since he has the best knowledge of the existing system.

3 Battery Limits

TTI's scope of work terminates at the following points :

3.1 Liquid Pitch and Fume System

- at the ship's hoses
- at the road/railroad tanker's inlet nozzle
- at the outlet nozzle of the nitrogen vaporizer plant

3.2 HTM System

- at the inlet flange of the HTM storage tank

3.3 Control System

- at the connection to low voltage supply to the MCC/MDB
- at the DH+ connection in the local control room

4 Utilities Required for Start-Up of Plant

Required quantity of :

- HTM [Gal] :	3000
- NSR wash oil [Gal] :	500
- Activated carbon	
- Type 1 [kg] :	100
- Type 2 [kg] :	100
- Dumped packing [m^3] :	0.5

5 Enclosures

- Doc. no. 99-56-Q-0 "Responsibility Matrix", rev. 00 dated 21.01.97
- Dwg. no. 99-56-01-01 "P&I Diagram. Pitch and Fume Treatment", rev. 00 dated 21.01.97.
- Dwg. no. 99-56 01 02 "P&I Diagram. HTM System", rev. 00 dated 21.01.97
- Dwg. no. 99-56-02-01 "General Arrangement, Structures." Liquid Pitch Marine Terminal Project, rev. 00 dated 21.01.97.
- Dwg. no. 99-56-02-02 "General Arrangement, Piping." Liquid Pitch Marine Terminal Project.", rev. 00 dated 21.01.97.

Tar Tech International A/S

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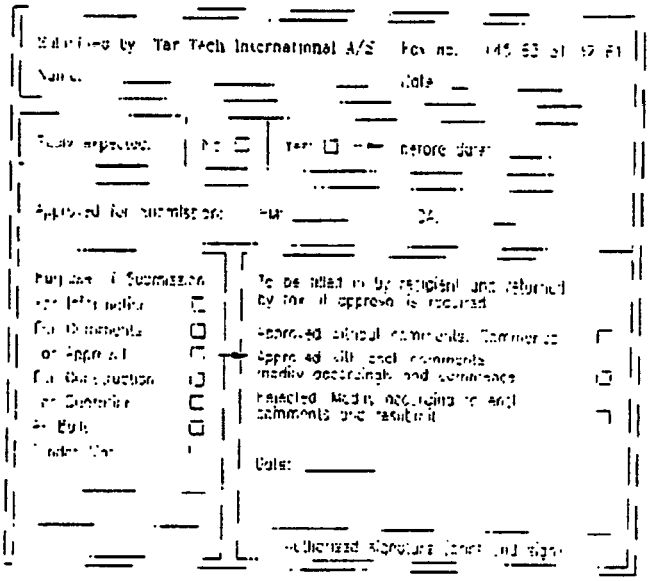
KOPPERS INDUSTRIES INC.

PORTLAND

Liquid Pitch Marine Terminal Project

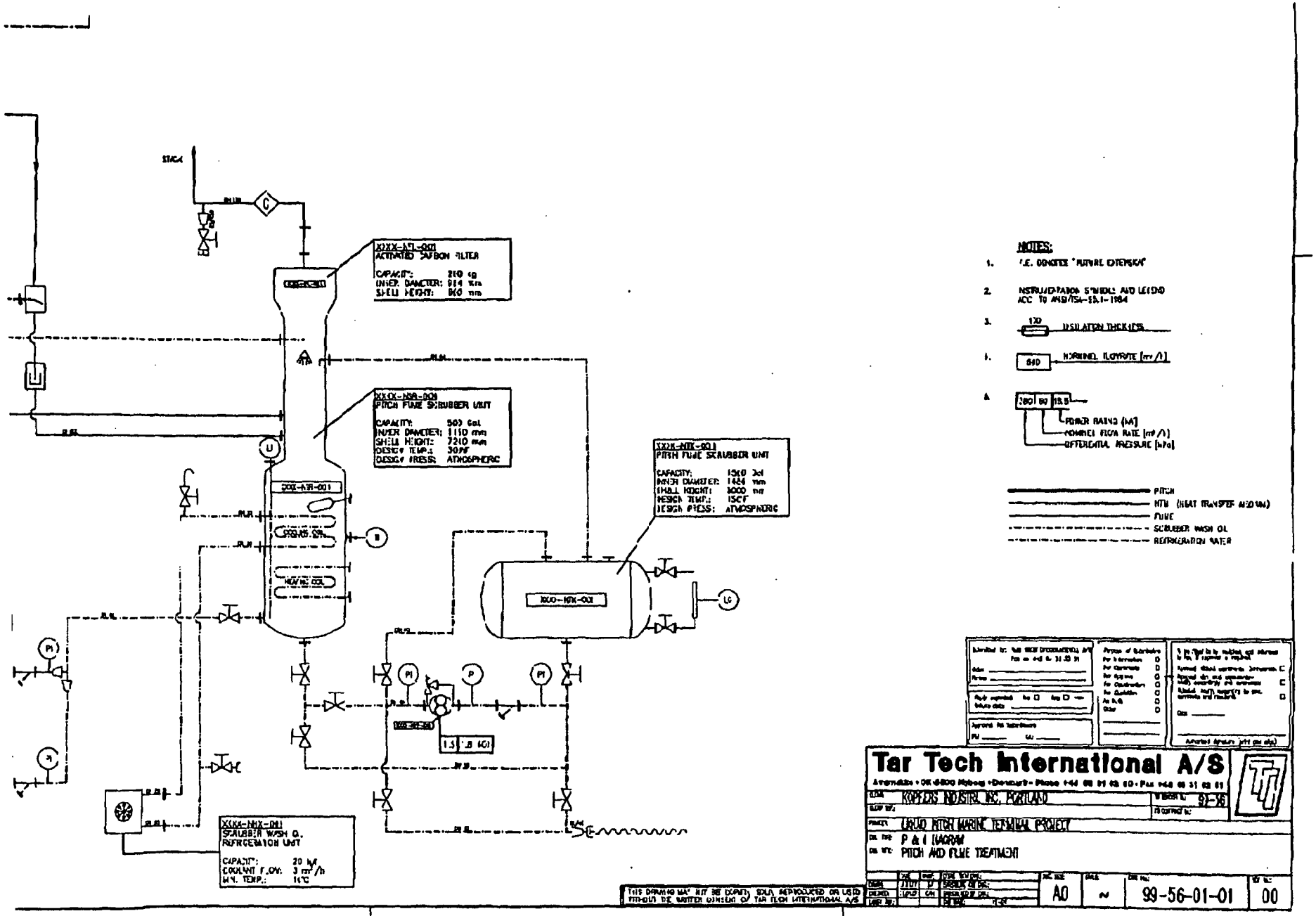
Responsibility Matrix



Responsibility Matrix

Item No.	Description	Basic/ Detail Eng.	As-Built Documen-tation	Material Procure-ment	Field Erection	Field Erection Manage	Field Super-vision	Field Commis-sioning
1	Embankment							
2	Quay Area							
3	Piling							
4	Civil Works							
5	Buildings							
6	High Voltage (AC)							
7	Roads							
8	Fencing							
9	Area Lighting							
10	Fire Detection / Protection							
11	Water Services							
12	Earthing							
13	Landscaping							
14	Ship Unloading Equipment							
15	Pipeline to Tank Farm							
16	Piping on Tank Farm							
17	Pipe Supports							
18	Valves and Actuators							
19	Pumps and Drives							
20	Tanks incl. Heating Coils							
21	Insulation							
22	Pitch Fume Scrubbing Equipment							
23	Structural Steel							
24	HTM System							
25	Road Tanker Loading Equipment							
26	Road Tanker/s							
27	Nitrogen Vaporizer Plant							
28	MCC's and Switch Gear							
29	LV-Transformers							
30	Cables							
31	Cable Tray							
32	Junction Boxes							
33	Other Electrical Equipment							
34	Field Instrumentation							
36	Instrument Cabling							
36	Marshalling Boxes							
37	PLC Cubicles							
38	PLC Software and Programming							
39	Man/Machine Interfaces							
40	Communication							
41	Remote Communication							
42	Utilities for Start up of Plant							

K KOPPERS INDUSTRIES, INC., PORTLAND
T TAR TECH INTERNATIONAL A/3



Tar Tech International A/S

Arendalsv. • DK-6800 Esbjerg • Denmark • Phone +45 [illegible] • Fax +45 [illegible]

CUST. KOPPERS INDUSTR. INC. PORTLAND — ORDER NO. 97-56

JOB NO. / REFERENCE NO.

PROJECT LIQUID PITCH MARINE TERMINAL PROJECT

DR. TYPE P & I DIAGRAM

DR. NO. PITCH AND FUME TREATMENT

	DATE	SIGN	ITEM NO.	SIZE	DRG. NO.	REV. NO.
DRAWN	11/97	LP		A0	99-56-01-01	00
CHECKED	11/97	CH				
APPR. BY						

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Koppers019151

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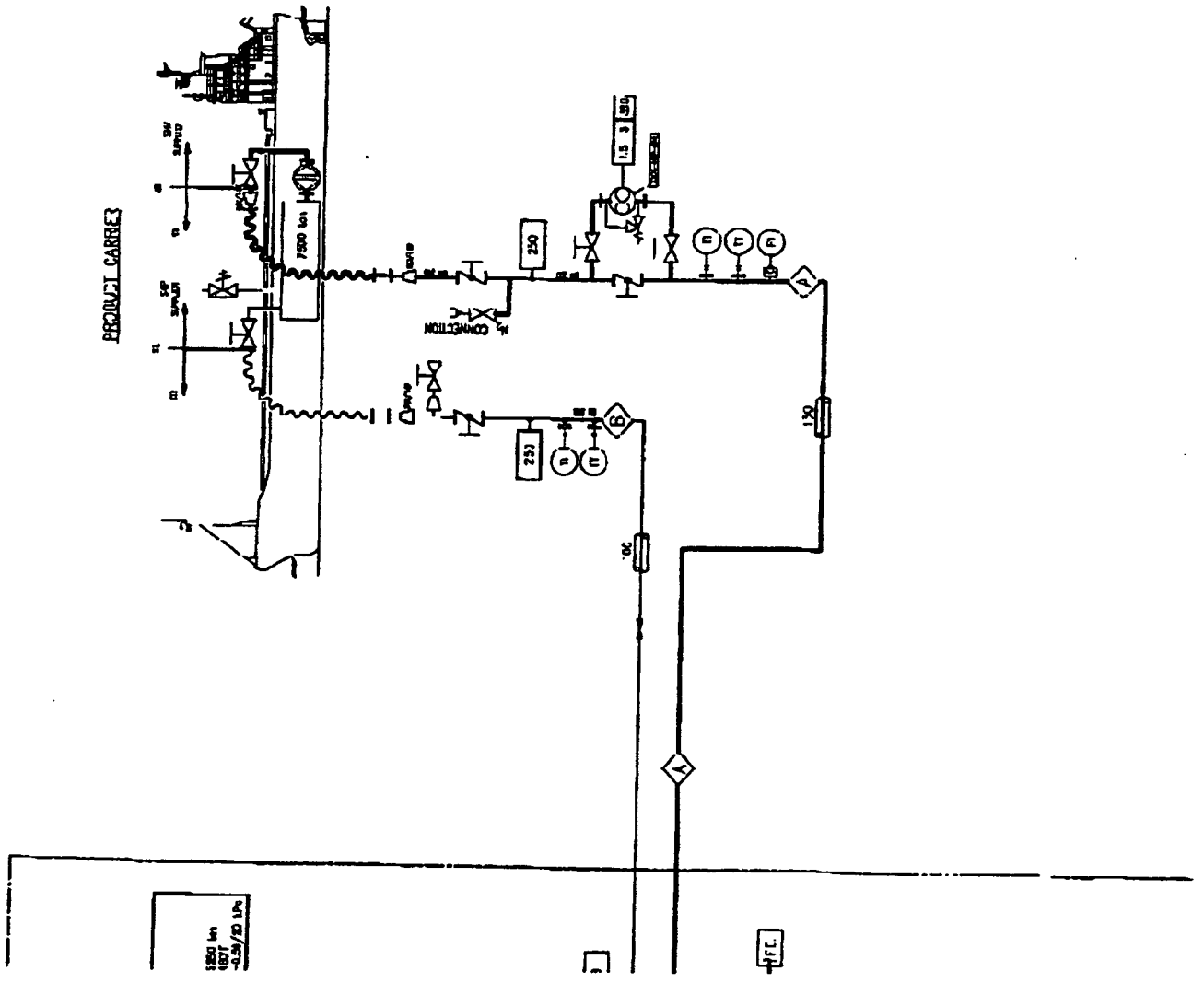

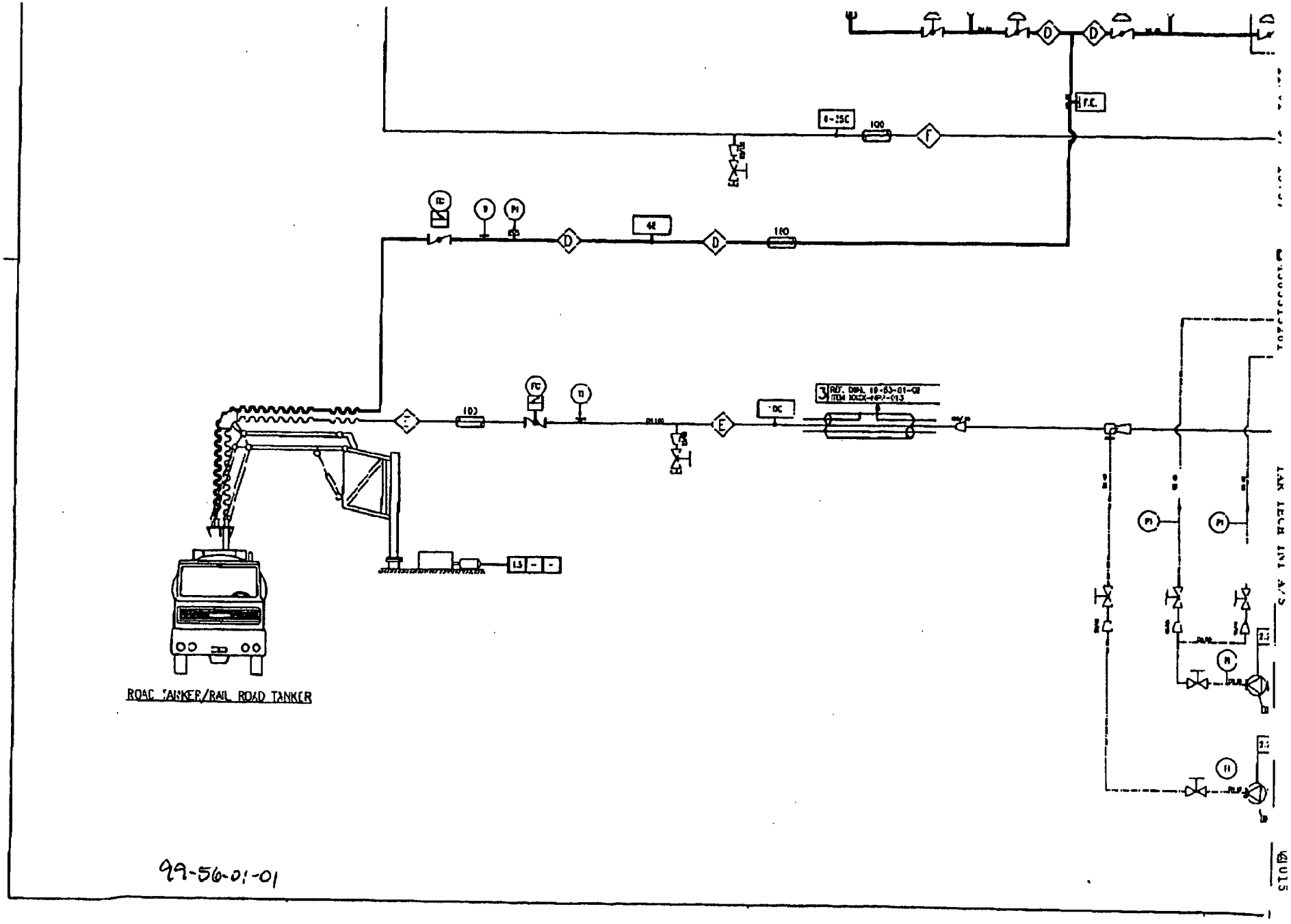

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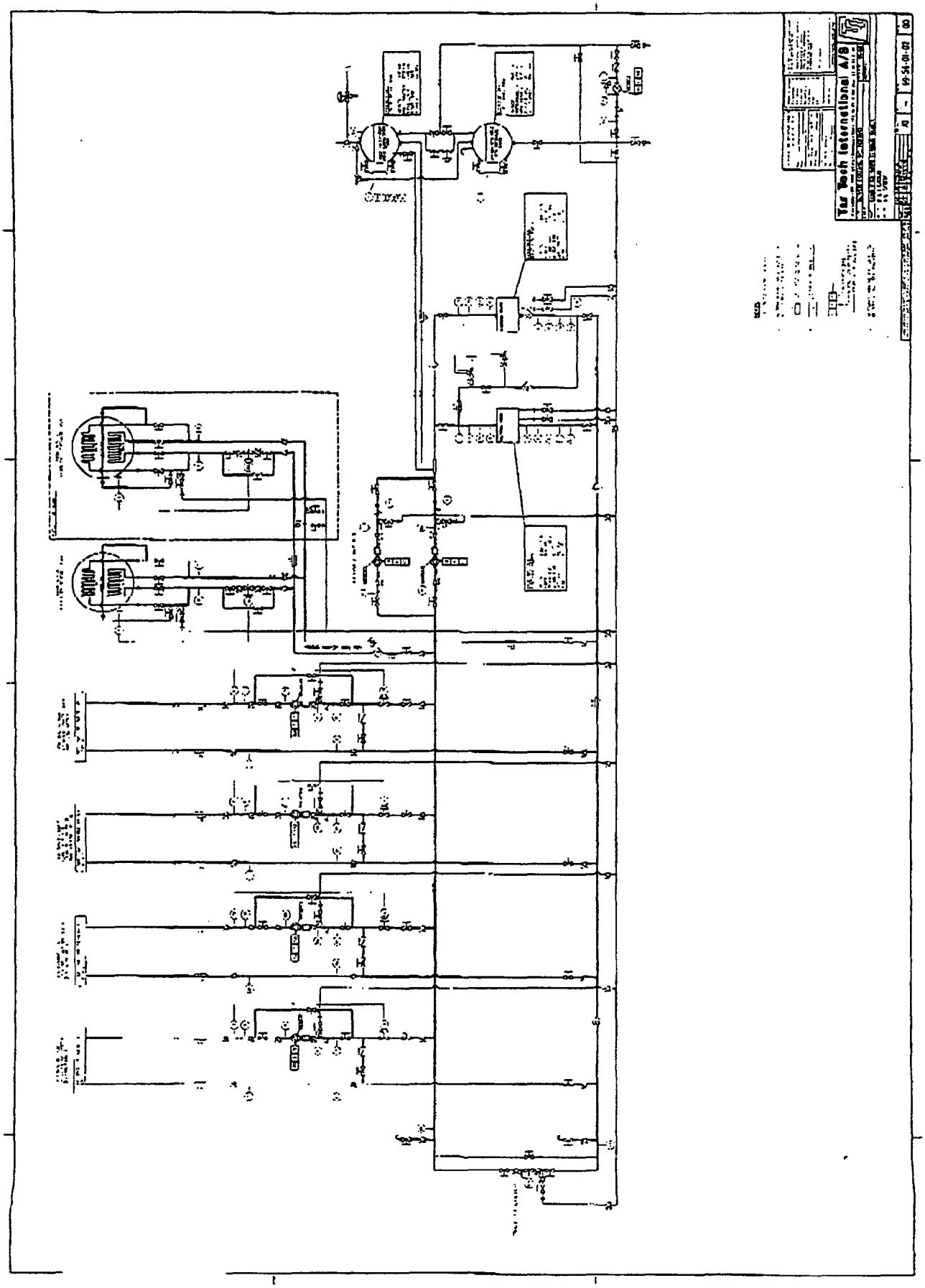
Koppers019153

FUTURE EXTENSIONS
NITROGEN MAIN LINE
99-01-01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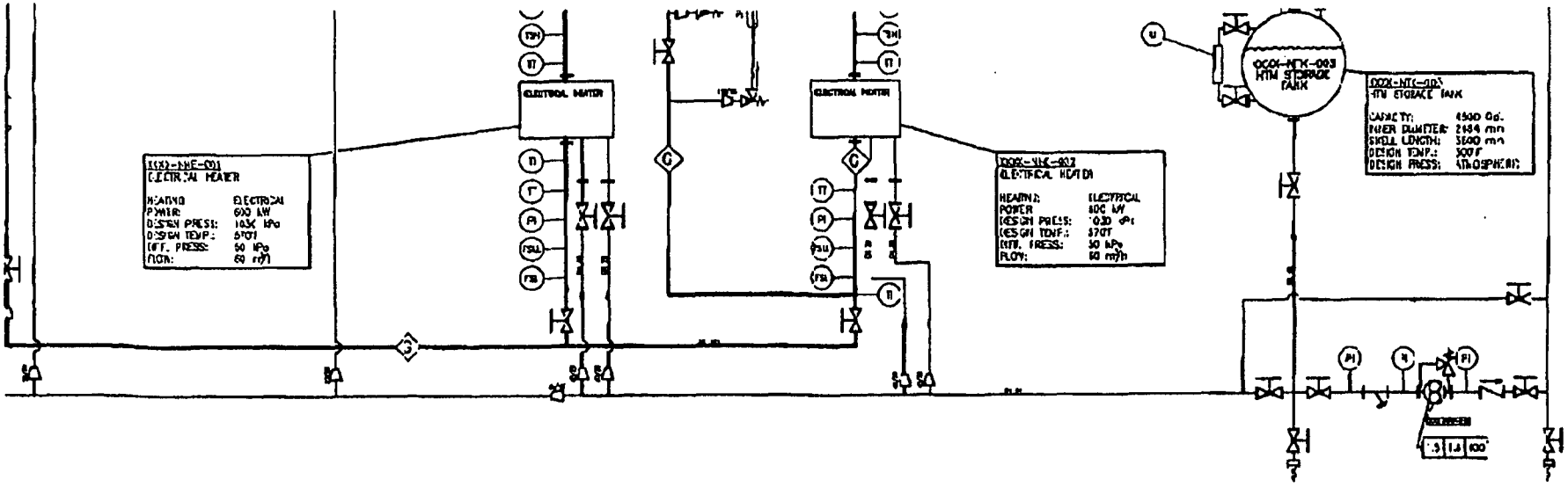

NOTES:

1. F.E. IDENTIFIES "FUTURE EXTENSION"
2. INSTRUMENTATION SYMBOLS AND LEGEND ACC. TO ANSI/SA-S5.1-1984
3. 101 — INSULATION THICKNESS
4. 500 — NOMINAL FLOWRATE (m³/h)
5. 500 | 3 | 75 — POWER RATING (kW); NOMINAL FLOW RATE (m³/h); DIFFERENTIAL PRESSURE (kPa)
6. NECESSARY DRAIN AND VENT VALVES TO BE INSTALLED ADD DETAIL ENGINEERING

Tar Tech International A/S

Avernakke • 3K-6800 Ryberg • Denmark • Phone +45 60 41 83 10 • Fax +45 60 11 58 01

CLIENT: KOPPERS PORTLAND, INC. PORTLAND	TI TOPIC NO.: 99-58
CLIENT REF.:	TI CONTROL NO.:
PROJECT: LIQUID PITCH MARINE TERMINAL PROJECT	
DRAWING TITLE: P & I DIAGRAM	
DRAWING NO.: HTM SYSTEM	

DRAWN	31.07.97			DWG. SIZE: A0	SCALE: ~
CHECKED	31.07.97			DWG. NO.: 99-56-01-02	REV. NO.: 00
APPROVED					

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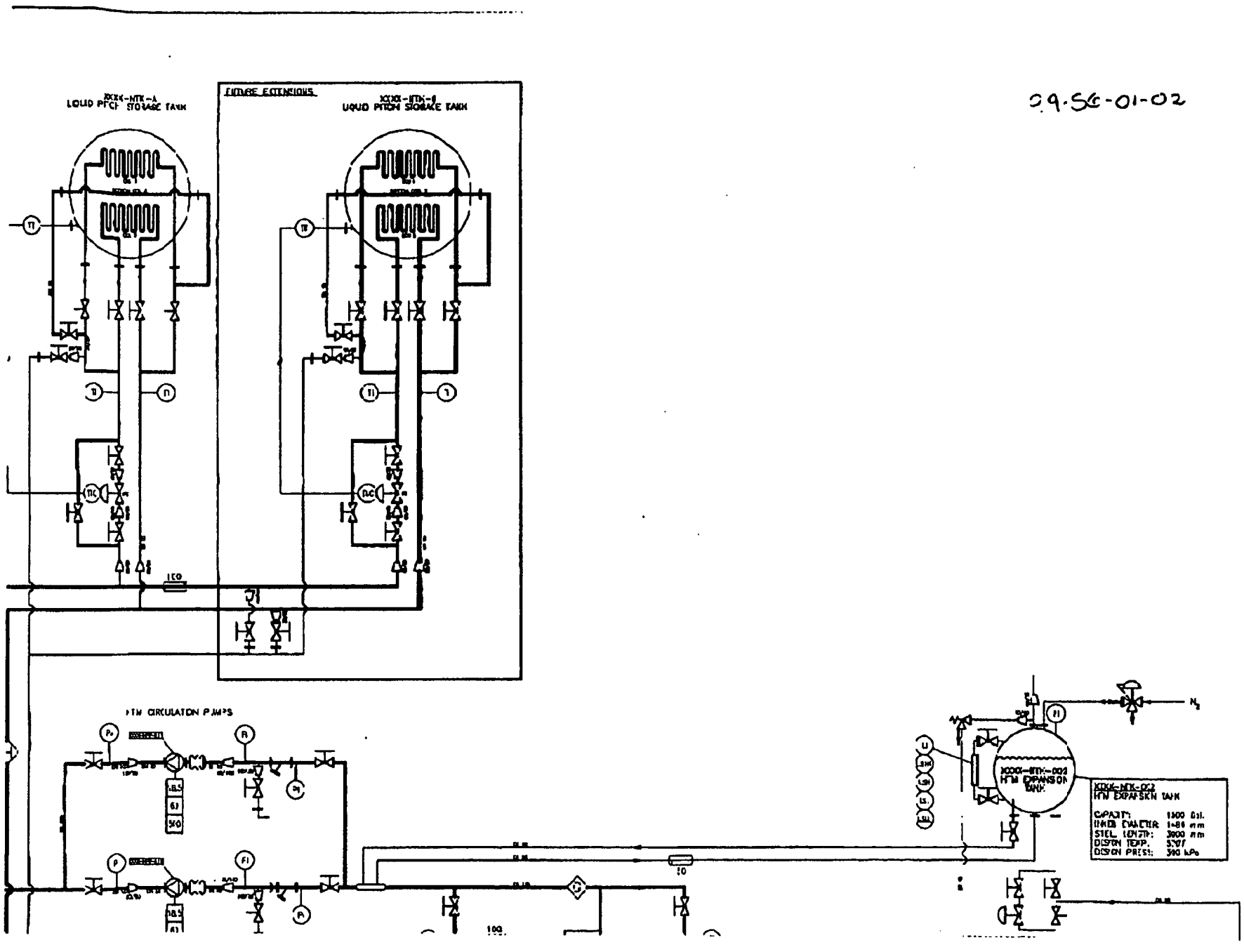
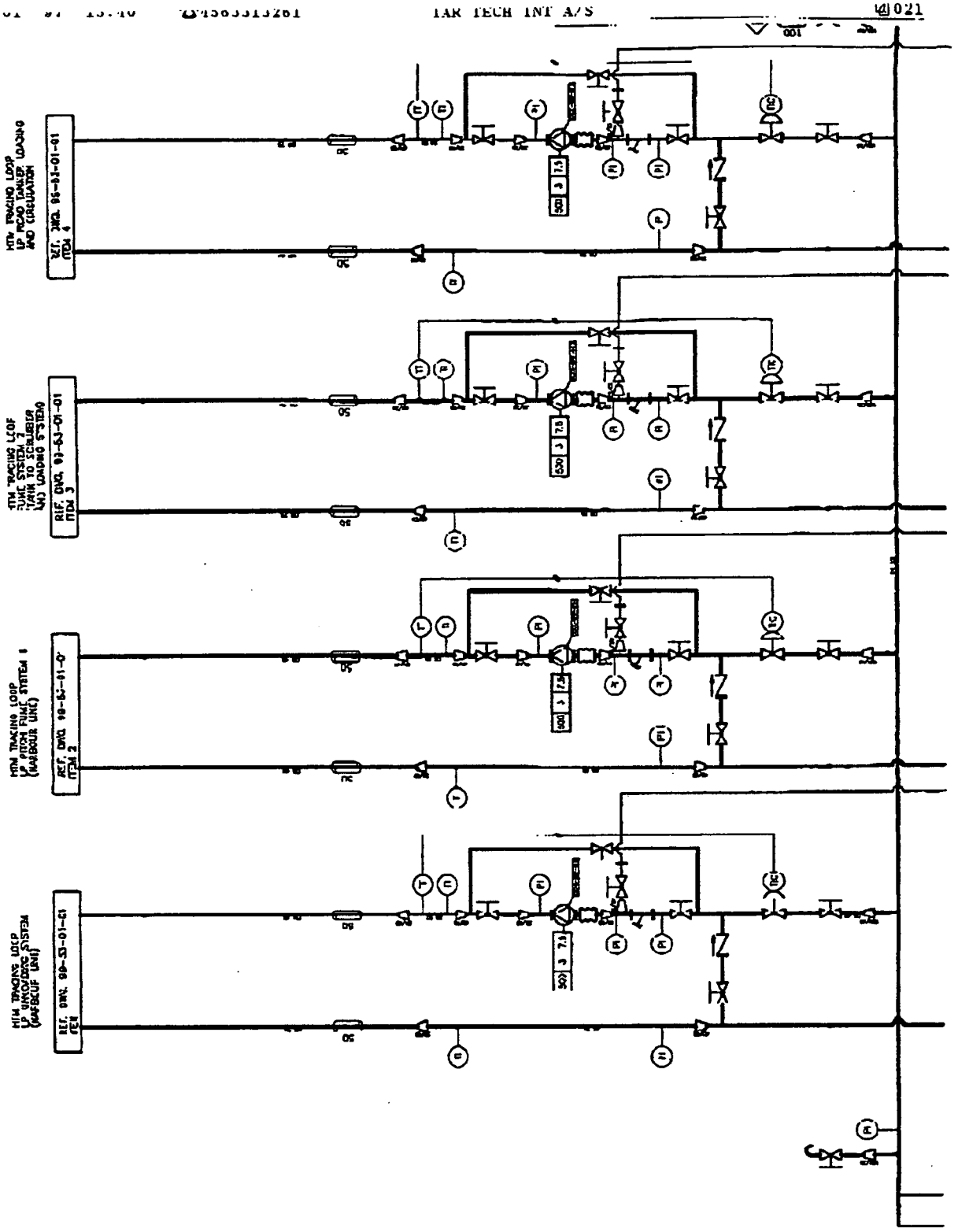


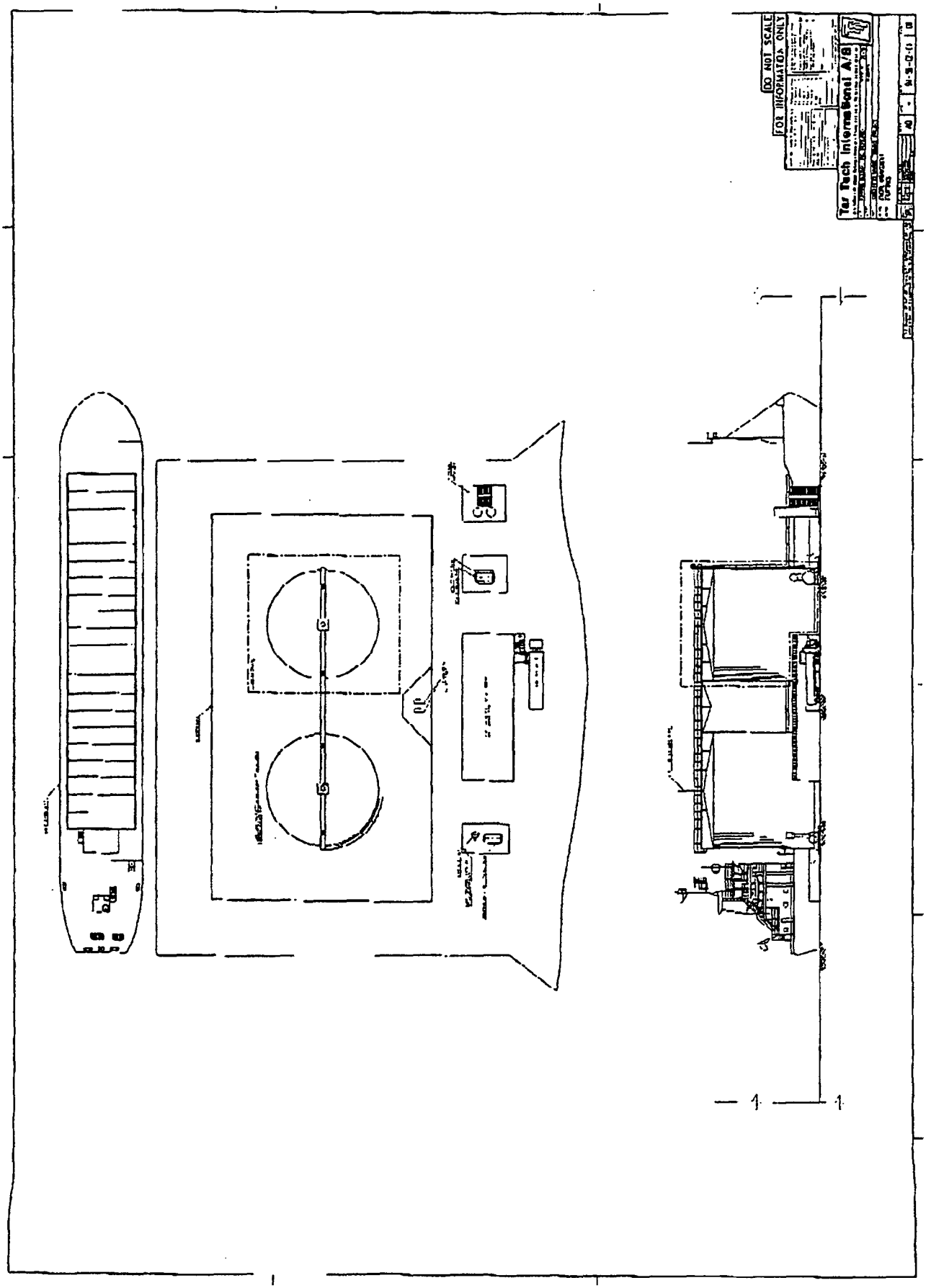
XXXX-NTK-A
LIQUID PITCH STORAGE TANK
FUTURE EXTENSIONS
XXXX-NTK-B
LIQUID PITCH STORAGE TANK
HTM CIRCULATION PUMPS
XXXX-NTK-002
HTM EXPANSION TANK
XXXX-NTK-002
HTM EXPANSION TANK
CAPACITY: 1500 Gal.
INNER DIAMETER: 1480 mm
STEEL LENGTH: 3000 mm
DESIGN TEMP.: 570F
DESIGN PRESS: 300 kPa

29-56-01-02

99-56-01-02


HTM TRACING LOOP
UP FROM TANKER LOADING
AND CIRCULATION
REF. DWG. 99-53-01-01
ITEM 4
HTM TRACING LOOP
FUME SYSTEM 7
MAIN TO SCRUBBER
(AT LOADING STATION)
REF. DWG. 99-53-01-01
ITEM 3
HTM TRACING LOOP
UP PITCH FUME SYSTEM 8
(HARBOUR UNIT)
REF. DWG. 99-53-01-01
ITEM 2
HTM TRACING LOOP
UP UNLOADING SYSTEM
(HARBOUR UNIT)
REF. DWG. 99-53-01-01
ITEM 1

99-66-01-02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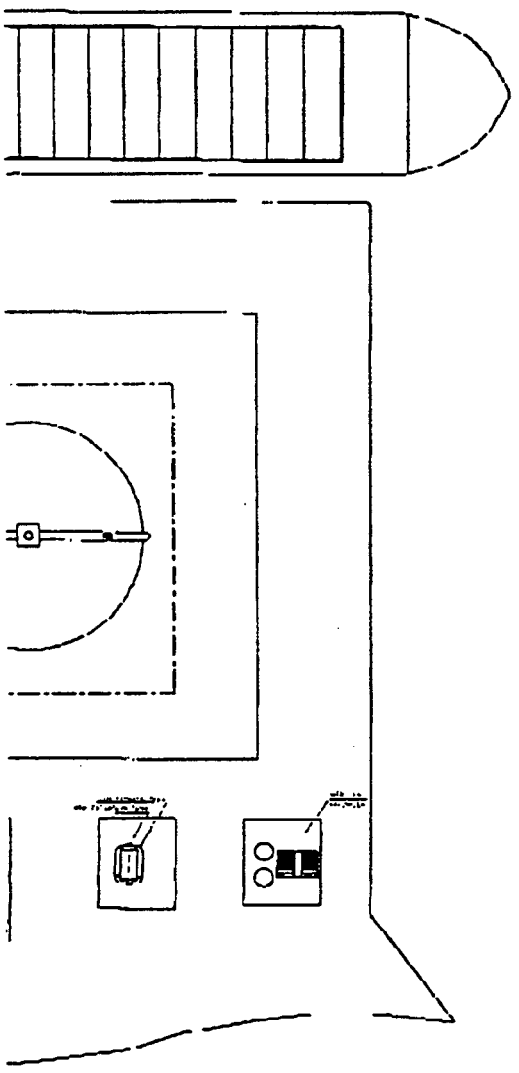

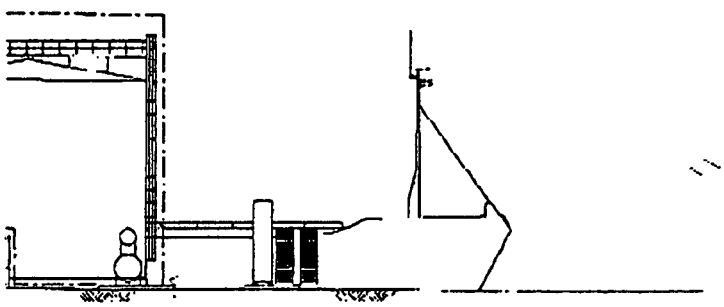

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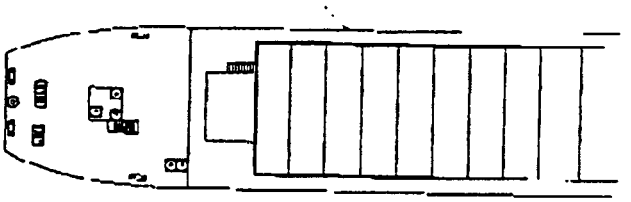

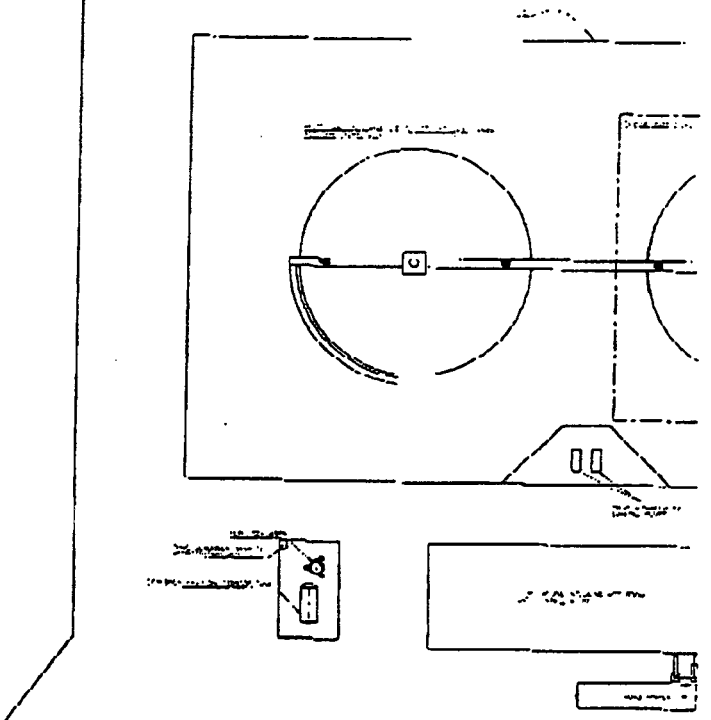

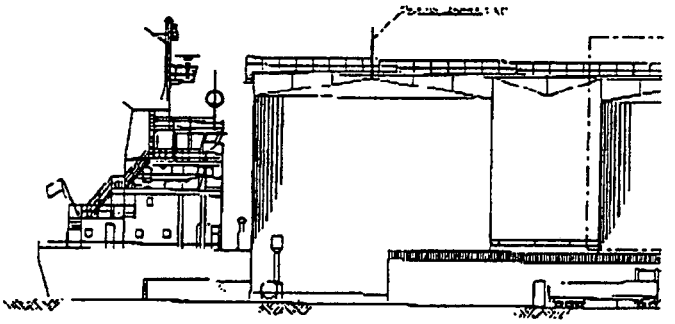

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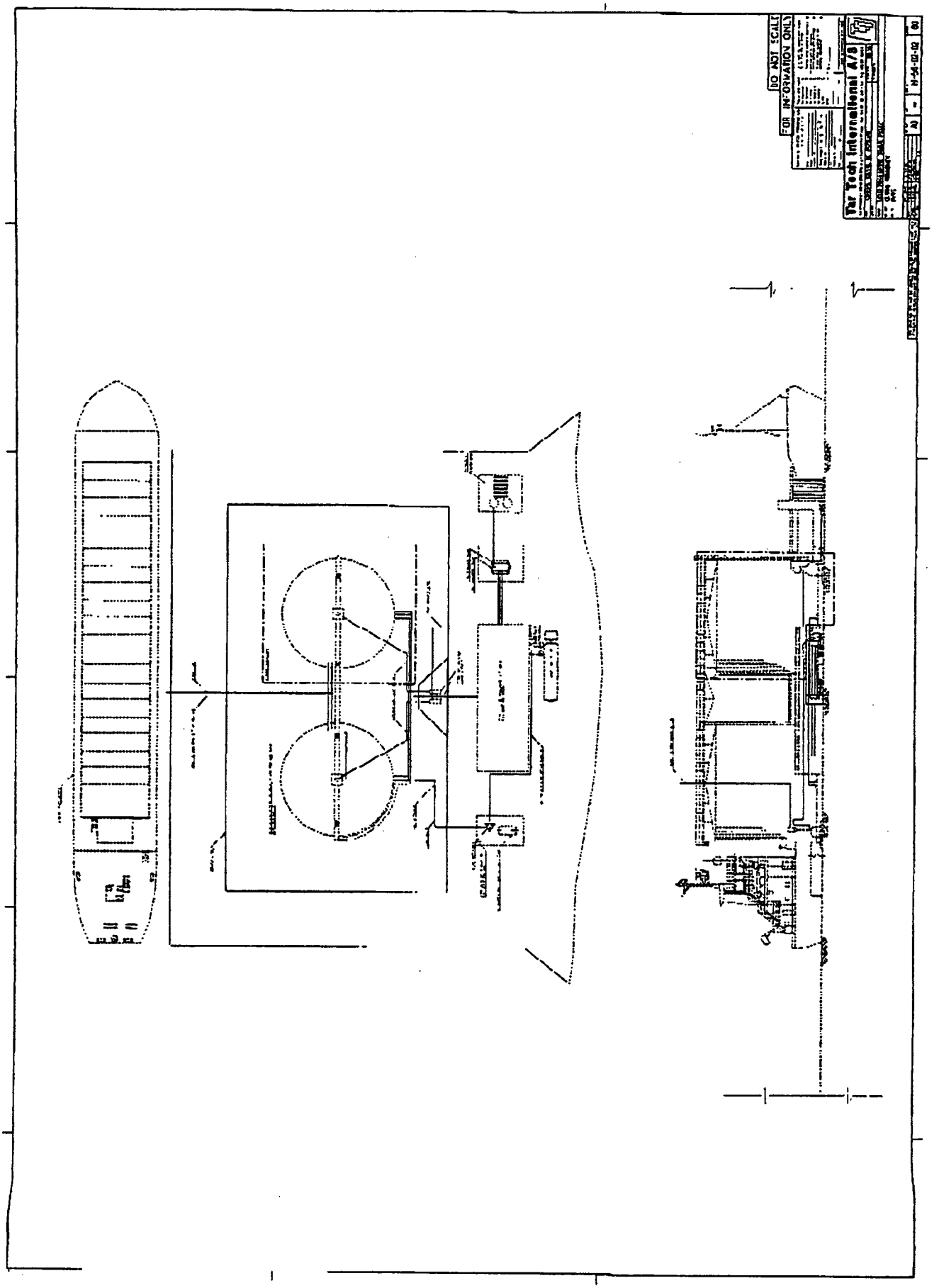
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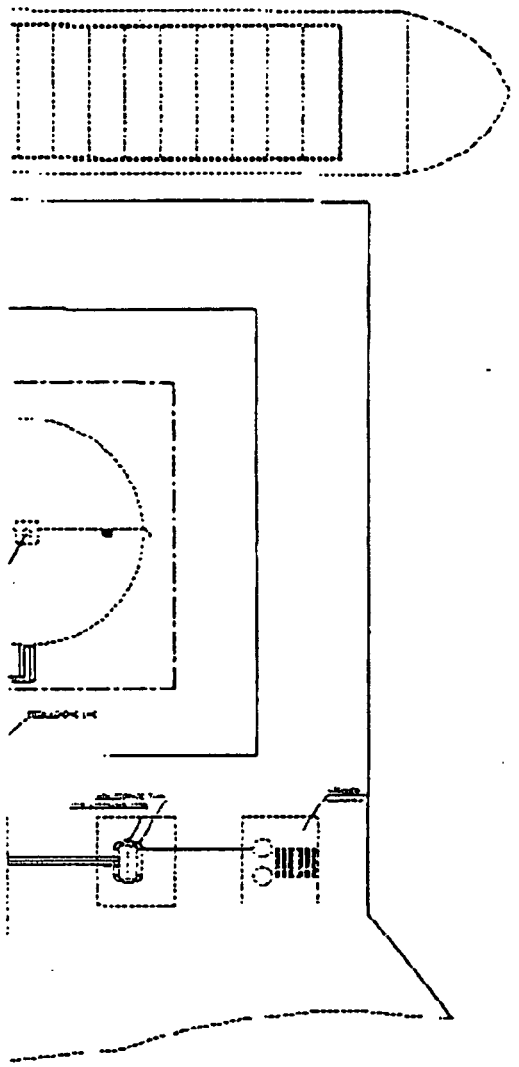

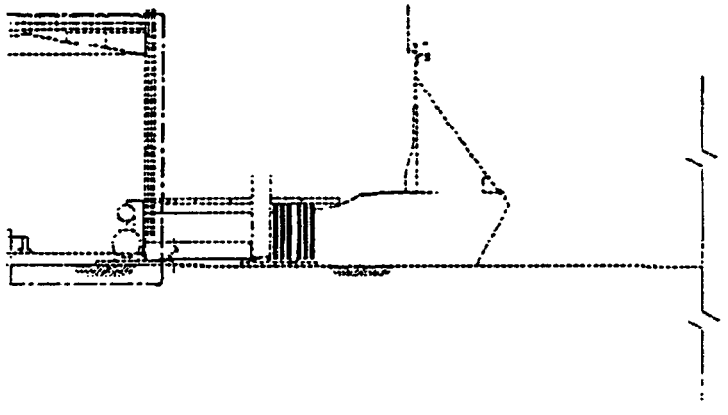

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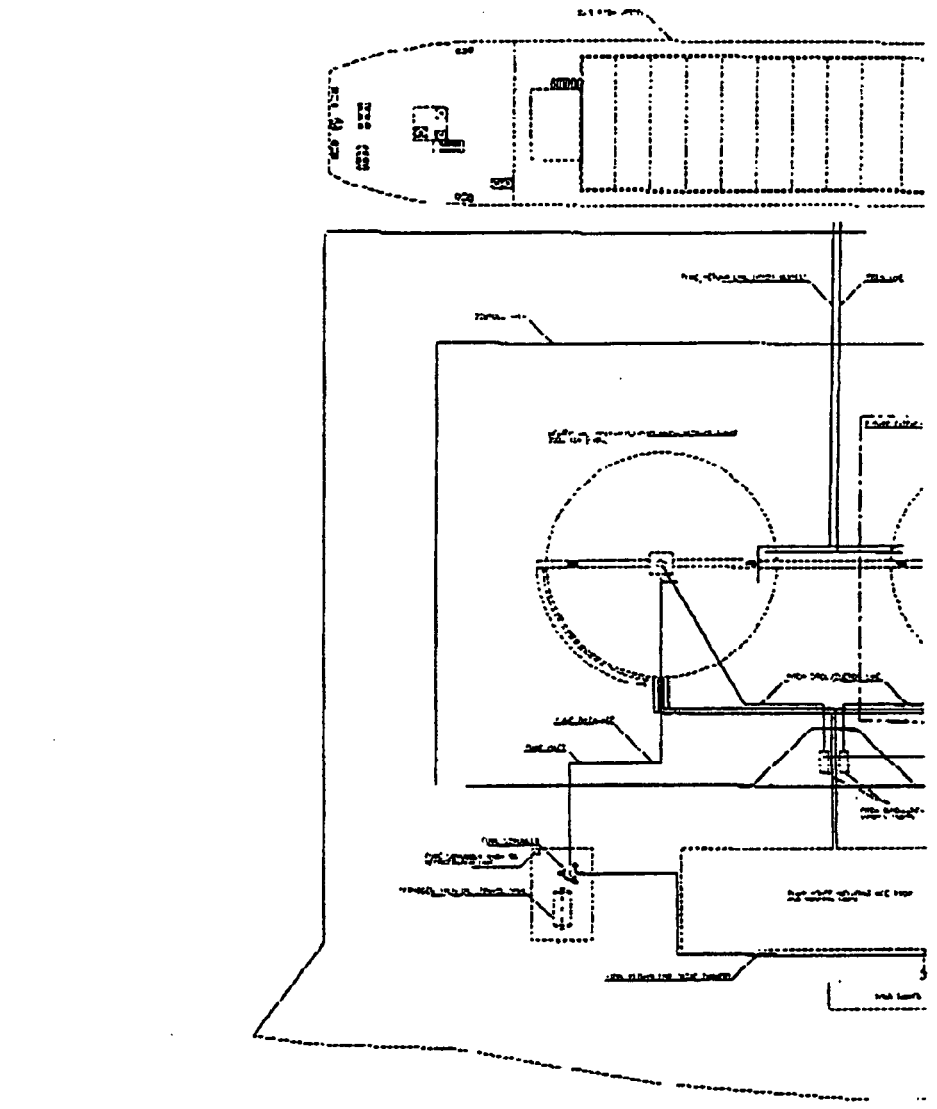
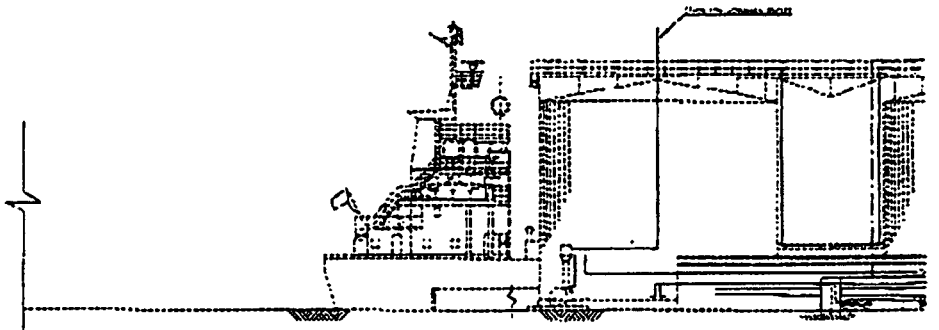




99-56-02-02

Author: Traci Self at PITT
Date: 5/19/98 10:41 AM
Priority: Normal
TO: Amos Kamerer
TO: BILL MEISINGER at TECHCTR
Subject: Portland Pitch Unloading Dock

---------- Message Contents ----------

Amos and Bill,

Attached is a draft of an update for the liquid pitch unloading project. Kevin Fitzgerald asked Steve Smith for an update of the status of the permitting issues. If you have any comments please contact me. I will fax a draft emissions analysis prepared by ACC.

Thank You,

Traci

INTEROFFICE CORRESPONDENCE

DATE: 5/19/98

TO: KEVIN FITZGERALD, K-1600

FROM: T. SELF

RE: PORTLAND - PITCH UNLOADING DOCK

On March 18, 1998 the Oregon Department of Environmental Quality (ODEQ) issued a draft air contaminant discharge permit. A public notice was issued and public comment period scheduled for March 18, 1998-April 17, and 1998. There were no comments received. Amos Kamerer and Bill Meisinger met with Kathy Amidon of ODEQ on April 23, 1998 to discuss the draft permit. Ms. Amidon was informed that the fume scrubber was not listed on the draft permit. KII was asked to submit emissions calculations for the scrubber. Air Compliance Consultants (ACC) is in the process of working with Jim Dietz – Engineering, to finalize the emission calculations. The information will be forwarded to ODEQ and the permit should be issued. We expect the calculations from ACC this week and information sent to ODEQ by the end of the month. Amos and Bill were informed there was not any additional information necessary, the permit should be issued by the end of June. It is my understanding that all other required permits with the exception of the building permit have been obtained.

CC: AMOS KAMERER-PORTLAND

BILL MEISINGER-HARMERVILLE

STEVE SMITH, K-1800

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.

C:\WPWIN60\PORTLAND\LIQPITCH.MEM

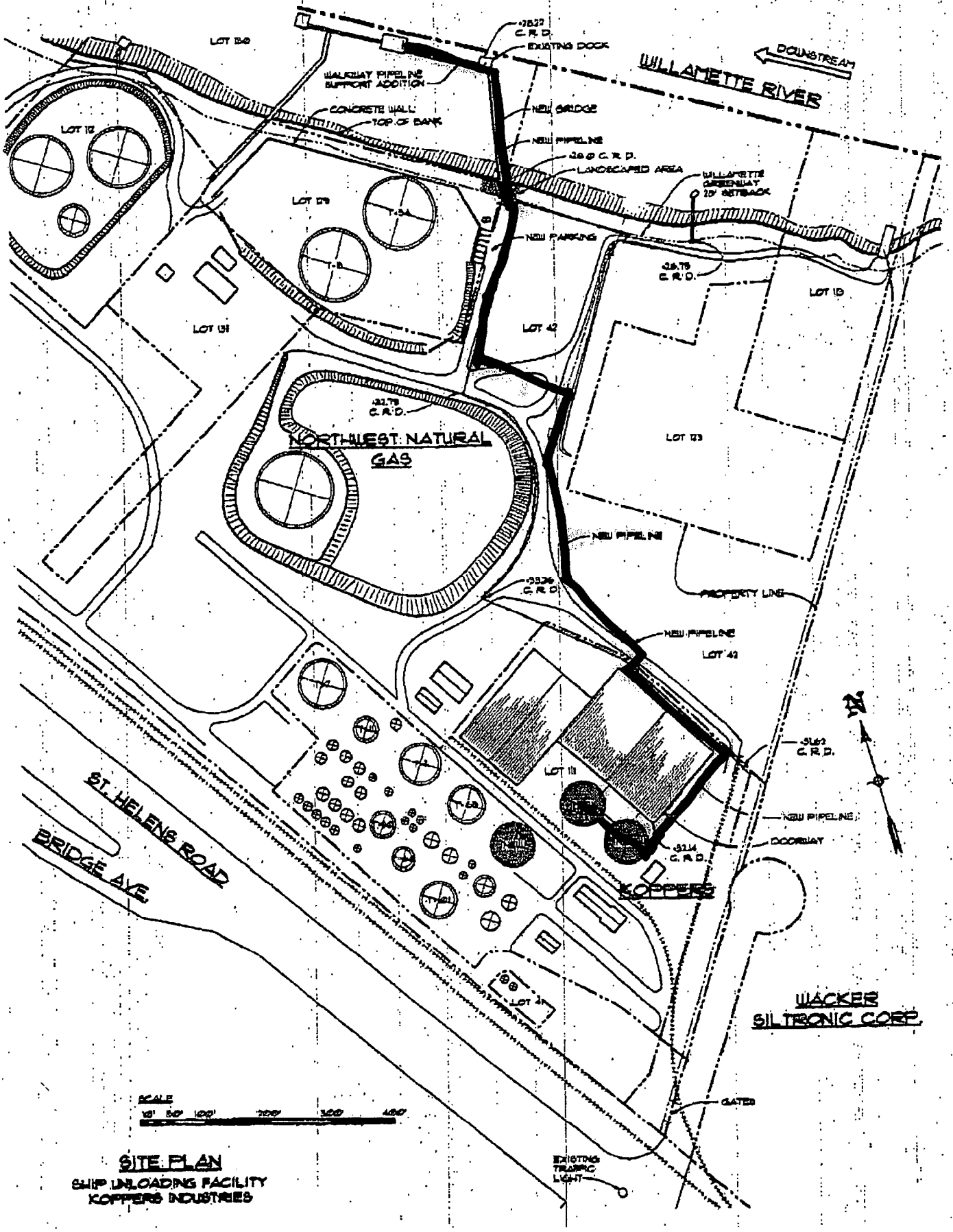
The pier that will be used for unloading the liquid pitch is currently managed by Pacific Northern Oil Company. Commodities such a Bunker C oil, distillate oils, and used oils are transferred between marine vessels and shore tanks operated by Pacific Northern. Oils are much more problematic than many 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



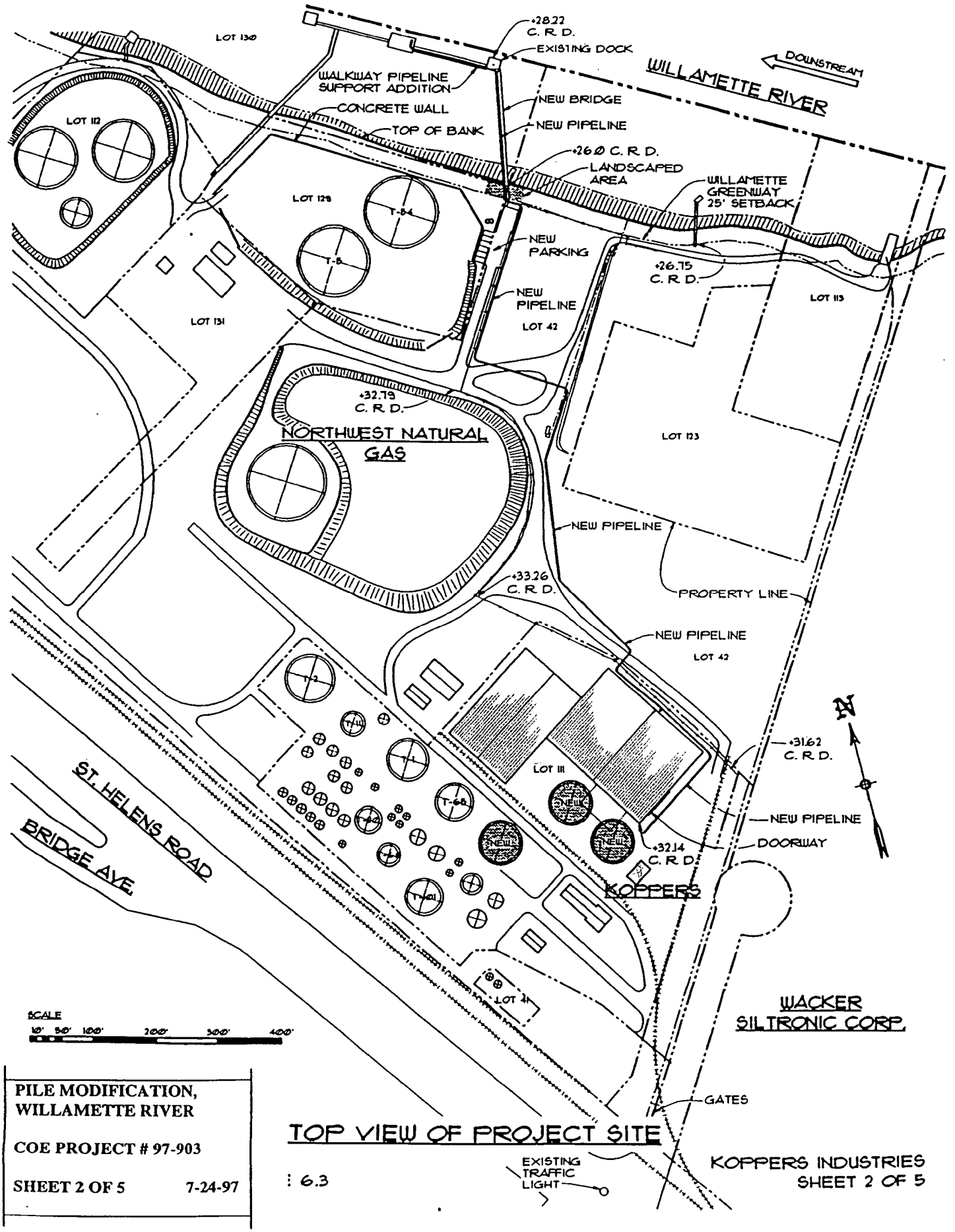
SITE PLAN
SHIP UNLOADING FACILITY
KOPPERS INDUSTRIES

PROJECT LOCATION MAP

PIER MODIFICATION
WILLAMETTE RIVER AT MILE 6.3
MAY 1997

KOPPERS INDUSTRIES
SHEET 1 OF 5

97-903 (Pile Modification, Willamette River)



PILE MODIFICATION, WILLAMETTE RIVER

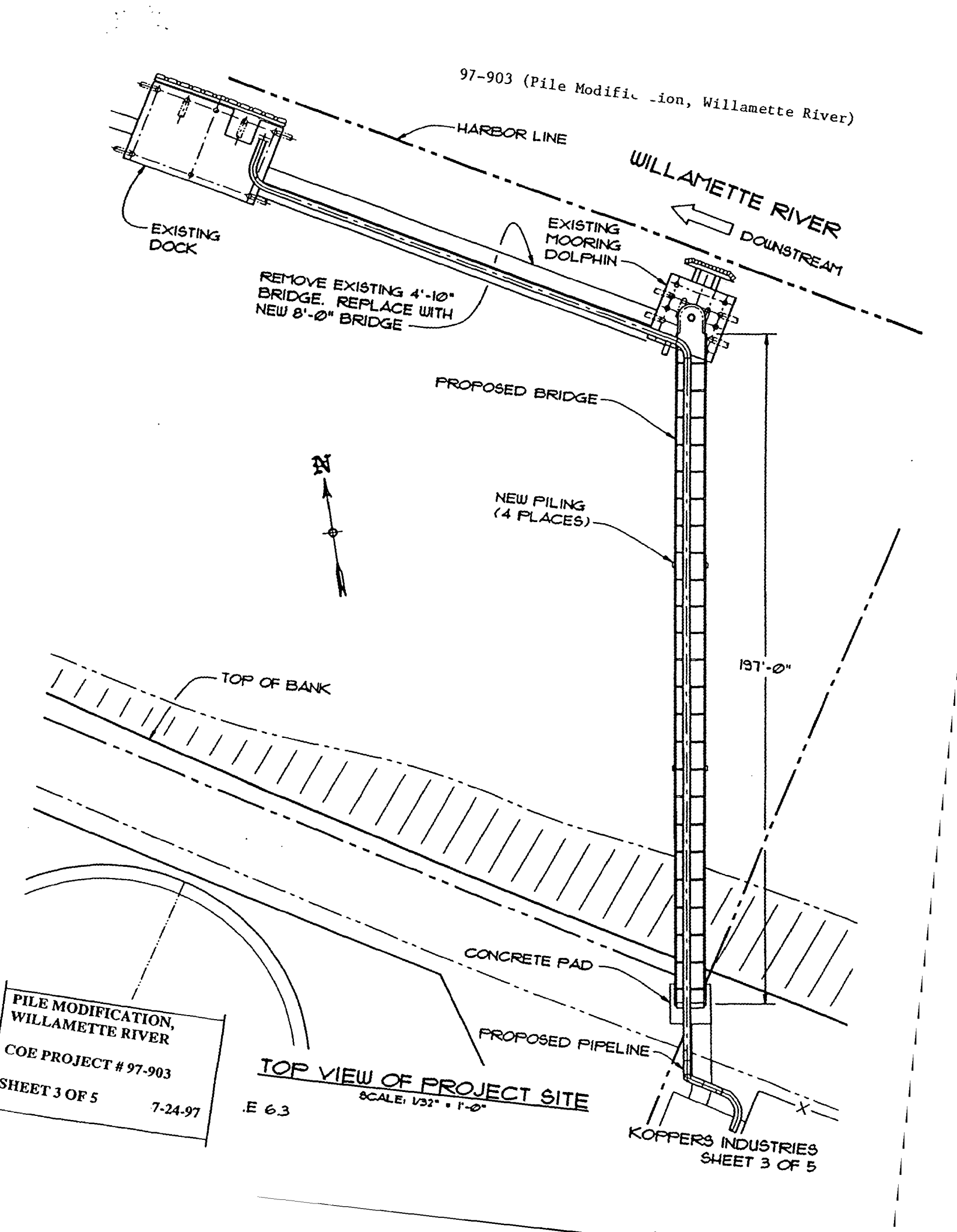
COE PROJECT # 97-903

SHEET 2 OF 5 **7-24-97**

TOP VIEW OF PROJECT SITE

: 6.3

KOPPERS INDUSTRIES
SHEET 2 OF 5



PILE MODIFICATION, WILLAMETTE RIVER

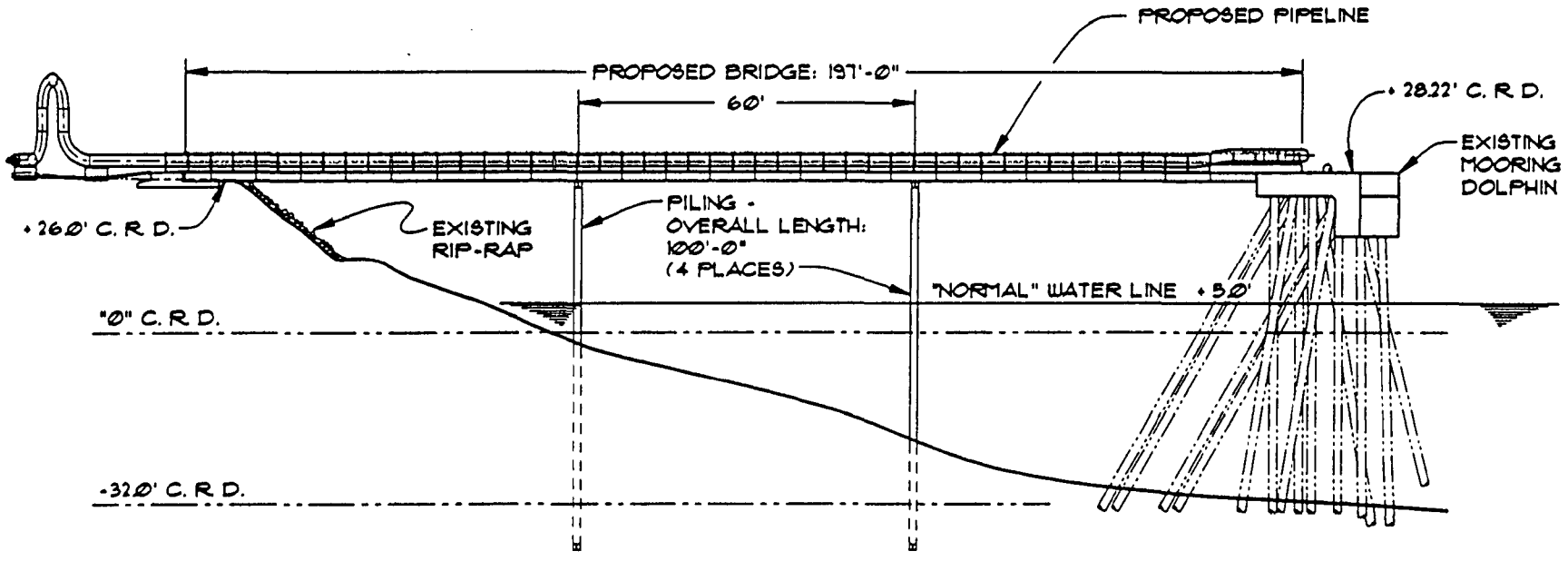
COE PROJECT # 97-903

SHEET 3 OF 5 7-24-97

E 6.3

TOP VIEW OF PROJECT SITE

SCALE: 1/32" = 1'-0"



ELEVATION OF BRIDGE

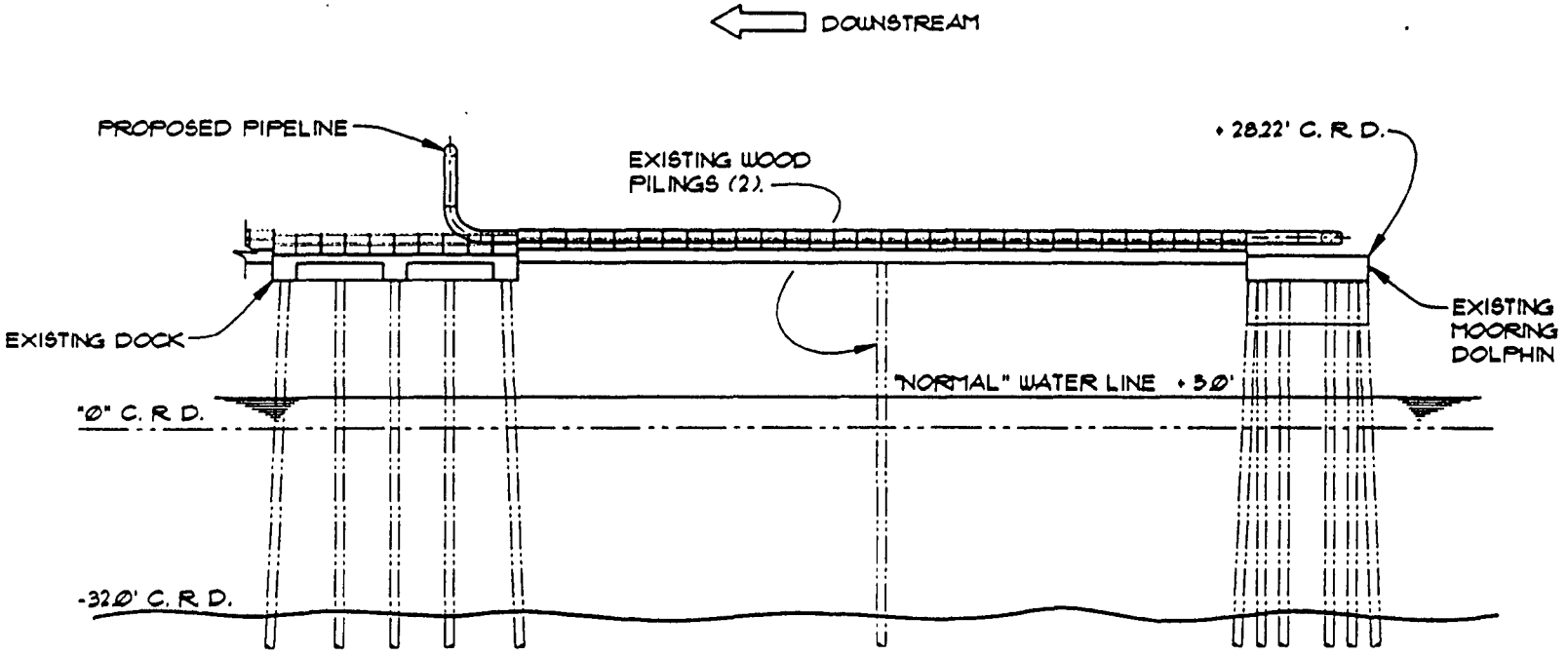
SCALE: 1" = 30'

(LOOKING DOWNSTREAM)

PILE MODIFICATION, WILLAMETTE RIVER
COE PROJECT # 97-903
SHEET 4 OF 5 7-24-97

KOPPERS INDUSTRIES
SHEET 4 OF 5

Koppers019174



ELEVATION OF EXISTING DOCK & DOLPHIN

SCALE: 1" = 30'

(LOOKING TOWARDS RIVER)

PILE MODIFICATION,
WILLAMETTE RIVER

COE PROJECT # 97-903

SHEET 5 OF 5 7-2~~4~~-97

KOPPERS INDUSTRIES
SHEET 5 OF 5

Koppers019175

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

September 5, 1997

INVOICE

NO: PI97-70

Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon 97210-3663

COPY

Attention: Amos Kamerer

Reference: Purchase Order No. 3000-7-9020

DESCRIPTION	AMOUNT
Portland Pitch Ship Unloading Pier & Pipe Line Project (INTERIM INVOICE for the period from 7-1-97 to 8-31-97) (McKernan Job No. P97-10)	
Engineering services to support the permit application to the City of Portland for the pitch ship unloading pier and pipe line project as outlined in McKernan letter dated 3/19/97. Services during this period are listed on the following page.	
CHARGES	
LABOR (Activity Logs attached):	
Principal engineer: 8 man-hours @ $75 per man-hour	$600.00
Drafting technician: 10 man-hours @ $35 per man-hour	350.00
TOTAL AMOUNT DUE (18 man-hours)	$950.00

TERMS: Net cash

RECEIVED
SEP 10 1997
KOPPERS INDS., INC.
PORTLAND, OR

September 5, 1997

Koppers Industries, Inc.
Pitch Ship Unloading Pier and Pipe Line Project
Purchase Order No. 3000-7-9020
McKernan Invoice No. PI97-70

COPY

DESCRIPTION AMOUNT

1. (NO CHARGE) Hand delivered to Amos Kamerer a copy of the Corps of Engineer's and the State of Oregon Permit Application on 7-8-97.

2. (NO CHARGE) Hand delivered to Amos Kamerer a copy of the City of Portland Notice on the Greenway Review on 7-11-97.

3. Had a telephone discussion with Steve Gerber at the City of Portland Planning Bureau about the possible conflict between the new tanks and the view corridor looking downstream toward the St. John's Bridge.

4. Obtained drawing and documentation on the view corridor.

5. Visited Amos Kamerer at the Koppers Plant on 8-1-97. Discussed the view corridor and took some photos of the site.

6. Revised our Site Plan to include the view corridor boundary.

7. Prepared a letter describing how the tanks do fit into the scheme of things at the site and selected a supporting photo.

8. Sent the letter, photo, and revised Site Plan to Steve Gerber at the City of Portland Planning Bureau by mail on 8-7-97.

9. (NO CHARGE) Had delivered to Amos Kamerer a copy of the City of Portland Approval Notice on 8-21-97.

END

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING JULY 15, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
7-8	N/C	On the way back to the office stopped in at Koppers and left the Corps of Engineer's and State of Oregon Permit Application copies for Amos.
7-11	N/C	Hand delivered the City of Portland Notice on the Greenway Review to Amos Kamerer.

SIGNED [signature] DATE 7-21-97

N/C

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING JULY 31, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
7-24	1	Had telephone conversation with Steve Gerber at the City of Portland Planning Bureau about the possible conflict between the new tanks and the view corridor looking downstream toward the St. John's Bridge. Tried to find the planning drawings and we seem to have lost them out of the file. Had Mike make a plot that shows where the view corridor is on our sight plan. Not quite satisfied that it is accurate. Asked Mary to go get another drawing on Monday.
7-31	1	Reviewed with Mike the paper work for the view corridor on the City document they FAXed us and asked Mike to plot that view corridor as an overlay on our site plan so we can study it.

SIGNED JCMK DATE 8-7-97

2 of 4

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING AUGUST 15, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
8-1	1	Visited Koppers and met with Amos Kamerer and looked at the plant and the view corridor. Took some pictures and sighted down the view corridor line.
8-5	1 1/2	Worked with Michael to get the site plan to agree with the City's drawings that show the view corridor. Michael finished it and plotted out both a large scale and a small scale plot.
8-6	1/2	Reviewed the photographs we got back. Selected a photograph to submit to the City to show the alignment of the big blue tank with the St. John's Bridge and how the new Koppers tanks will fit in to the scheme of things.
8-7	3	Drafted a letter and the supporting photograph and got it all ready to send to the City of Portland regarding the view corridor issue. Did a final check on Mike's revision of the Site Plan. Telephoned Steve Gerber at the City of Portland Planning Bureau and discussed what I was doing ~~with him~~. He seemed to be receptive to the information that I will mail him today.
8-14	N/C	Telephone conversation with Amos Kamerer. Looked up the estimate for the cost of the City Building Permits and gave him that information over the telephone.

SIGNED [signature] DATE 8-25-97

6 mh

ACTIVITY LOG

NAME MICHAEL H. KINCAID PERIOD ENDING JULY 31, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
7/24/97	¾	HAD DISCUSSION w/ CAM ABOUT LOCATION OF VIEW LINE
7/31/97	3½	TOOK DRAWINGS RECEIVED FROM THE CITY THAT SHOWS THE "VIEW CORRIDOR" AND ADDED IT TO PLAN No. 97010-01

SIGNED [signature] DATE JULY 31, 1997

ACTIVITY LOG

NAME MICHAEL H. KINCAID PERIOD ENDING AUGUST 15, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
8/1/97	1¾	HAD DISCUSSION w/ CAM ABOUT CHANGES TO BE MADE TO PLAN No. 97010-1. CHANGES WERE MADE AFTER CAM'S VISIT TO KOPPERS TO LOOK AT WHERE THE NEW TANK WILL BE LOCATED AND IF IT IS IN THE "VIEW LINE".
8/4/97	½	STARTED TO WORK ON CHANGES TO BE MADE TO PLAN 97010-1 AFTER DISCUSSION w/ CAM.
8/5/97	2	WORKED WITH CAM ON LOCATION OF VIEW CORRIDOR. MADE CHANGES TO EXACT LOCATION OF TANK AND OTHER STUFF. MADE PLOT OF BOTH PLANS 97010-1 AND SHEET 1 (8½ x 11)
8/6/97	1	SAT DOWN w/ CAM TO DISCUSS THE PROJECT
8/7/97	½	MADE CHANGES TO BOTH SHEET 97010-1 & THE SMALLER SIZE DRAWING OF THE SAME THING. MADE A PLOT OF BOTH DRAWINGS.

SIGNED [signature] DATE AUGUST 15, 1997

5¾

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING AUGUST 31, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
8-21	N/C	(1/2 hour) Delivered the City of Portland approval to Amos Kamerer on the way home from Gunderson.

SIGNED [signature] DATE 9-2-97

N/C

J. CAMERON McKERNAN COMPANY

Engineering + Naval Architecture

825 NE 20th Avenue, Suite 110 * Portland, Oregon 97232 * (503) 232-7211 * FAX (503) 232-7658

FACSIMILE TRANSMITTAL FORM

COPY

FILE NO: P97-10

DATE: 5-22-97

TRANSMIT TO: James T. Dietz

Koppers Industries, Inc.

FAX NUMBER: 412-826-3999

NUMBER OF PAGES TRANSMITTED INCLUDING THIS COVER SHEET: 5

PROJECT NAME: Portland Pitch Ship Terminal
Modification of Pier and Piping from Ship to Storage Tanks

TRANSMITTING LETTER: Cost of Construction Plans and Engineering

1.) Engineering Tasks Description
2.) Plan List

Dear Jim,

I have enjoyed working on this Project. I would like to continue.

I would be pleased to discuss my engineering cost estimate and to consider other than the proposed time-and-material arrangement.

Sam McK

cc: Amos Kamerer

RECEIVED
MAY 23 1997
KOPPERS INDS. INC.
PORTLAND OR

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
May 22, 1997

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

Attention: James T. Dietz

Subject: Portland Facility Pitch Ship Terminal
Modification of Pier and Piping from Ship to Storage Tanks
Cost of Construction Plans and Engineering

Enclosures: 1.) Engineering Tasks Description
2.) Plan List

COPY

Gentlemen:

We propose to do the work outlined on the attached Engineering Tasks Description to support your Portland Pitch Ship Terminal Project. Basically, we propose to be your engineering staff for the waterfront and transfer pipeline part of the project. We will support your Project Manager/Engineer to complete the project within your schedule. Our estimated cost for engineering is as follows:

Construction Plans (Tasks 1 & 2 = 1930 man-hours). .	$ 85,500
Construction Support (Tasks 3 through 10).	38,600
TOTAL	$124,100

We propose to do this work on a time-and-material basis. Our 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/Secretarial:	$30.00 per man-hour
Drafter Trainee:	$20.00 per man-hour

We would be willing to consider other arrangements.

Very truly yours,

J. CAMERON McKERNAN COMPANY

By: J. Cameron McKernan

J. Cameron McKernan, President

cc: Amos Kamerer

Koppers Industries, Inc.
Portland Facility Pitch Ship Terminal
Modification of Pier and Piping from
Ship to Storage Tanks

File No. P97-10
May 22, 1997

COPY

ENGINEERING TASKS DESCRIPTION

1. Prepare construction plans as shown on attached list.

2. Do engineering calculations for development of plans. Such calculations are:

   a.) Pier walkway and bridge structural analysis.

   b.) Piling and "spread" footing analysis for pier and shoreside pipe and piping cross-over bridge supports.

   c.) Piping thermal expansion and flexibility/stress analysis. These analysis will be done using a computer.

3. Interface and coordinate with ship operator to assure shore connection; ship transfer hose; and operation of ship connecting, ship pumping, and ship disconnecting are compatible and meet requirements.

4. Follow-up and coordination with City, State, and U. S. Corps of Engineers to obtain permits.

5. Prepare construction specifications for Contractor bidding. Assist with solicitation and evaluation of bids. Construction specifications will be developed by trade of Contractor specialty.

6. Provide engineering support during construction to resolve engineering problems and to coordinate Contractors and City inspection.

7. Perform "in-process" inspection of work to satisfy City requirement for certification that work is done in accordance with the approved plans and standards. This will include coordination of Special Inspectors such as welding inspectors and soil tests for contamination. The cost of hiring the Special Inspectors in not included.

8. Prepare operating procedures for Ship Terminal Operation in accordance with U. S. Coast Guard Regulations.

9. Prepare applications and supporting documents for U. S. Coast Guard Permits to operate the Marine Terminal Facility. Some of these documents are: Emergency Spill Response Plan, Procedure for Disposition of Ship's Oily Waste, and Procedure for Disposition of Ship's Garbage.

10. Provide the City with Certification the project is completed in accordance with the approved plans.

END

Koppers Industries, Inc.
Portland Facility Pitch Ship Terminal
Modification of Pier and Piping from
Ship to Storage Tanks

File No. P97-10
May 22, 1997

PLAN LIST

SITE PLAN

FIRE & SAFETY PLAN (locates hydrants, hose stations, etc.)

PIER MODIFICATIONS:

COPY

ARRANGEMENT & PLAN LIST
PILING PLAN

WALKWAY PIER TO DOLPHIN - ARRANGEMENT
WALKWAY PIER TO DOLPHIN - STRUCTURAL DETAILS
WALKWAY PIER TO DOLPHIN - SUPPORT DETAILS
WALKWAY PIER TO DOLPHIN - MISCELLANEOUS DETAILS

BRIDGE TO SHORE - ARRANGEMENT
BRIDGE TO SHORE - STRUCTURAL DETAILS SHT 1
BRIDGE TO SHORE - STRUCTURAL DETAILS SHT 2
BRIDGE TO SHORE - STRUCTURAL DETAILS SHT 3
BRIDGE TO SHORE - STRUCTURAL DETAILS SHT 4
BRIDGE TO SHORE - FOOTING FOR SHORE SUPPORT

ROADWAY & PARKING AREA ARRANGEMENT

FENCING ARRANGEMENT & DETAILS

LIGHTING PLAN

PIPE LINE:

ARRANGEMENT & PLAN LIST

PIPING ON PIER - STUDY: PIER & SHIP ELEVATIONS
PIPING ON PIER - SHIP CONNECTION
PIPING ON PIER - SPILL CATCHMENT
PIPING ON PIER - ARRANGEMENT
PIPING ON PIER - DETAILS

PIPING ON BRIDGE - ARRANGEMENT
PIPING ON BRIDGE - DETAILS

PIPING ON PIER - SUPPORTS
PIPING ON PIER - ANCHORS

CONT'D . . .

PLAN LIST (cont'd)

PIPE LINE: (cont'd)

PIPING ON SHORE - ARRANGEMENT SHT 1
PIPING ON SHORE - ARRANGEMENT SHT 2
PIPING ON SHORE - ARRANGEMENT SHT 3
PIPING ON SHORE - ARRANGEMENT SHT 4
PIPING ON SHORE - ARRANGEMENT SHT 5

COPY

PIPING ON SHORE - TANK CONNECTION

PIPING ON SHORE - TYPICAL SLIDING SUPPORT

PIPING ON SHORE - TYPICAL ANCHOR

PIPING ON SHORE - ROAD CROSSOVER BRIDGE PLAN
PIPING ON SHORE - ROAD CROSSOVER BRIDGE PLAN - ELEVATIONS
PIPING ON SHORE - ROAD CROSSOVER BRIDGE PLAN - SECTIONS
PIPING ON SHORE - ROAD CROSSOVER BRIDGE PLAN - DETAILS SHT 1
PIPING ON SHORE - ROAD CROSSOVER BRIDGE PLAN - DETAILS SHT 2
PIPING ON SHORE - ROAD CROSSOVER BRIDGE PLAN - DETAILS SHT 3

PIPING ON SHORE - DOOR WAY CROSSOVER BRIDGE PLAN
PIPING ON SHORE - DOOR WAY CROSSOVER BRIDGE PLAN - SECTIONS
PIPING ON SHORE - DOOR WAY CROSSOVER BRIDGE PLAN - SECTIONS SHT 1
PIPING ON SHORE - DOOR WAY CROSSOVER BRIDGE PLAN - SECTIONS SHT 2
PIPING ON SHORE - DOOR WAY CROSSOVER BRIDGE PLAN - SECTIONS SHT 3

PIPING ON SHORE - CROSSOVER BRIDGE LIGHTING ARRANGEMENT

PIPING ON SHORE - EXCAVATION & FILL PLAN
PIPING ON SHORE - EXCAVATION & FILL DETAILS SHT 1
PIPING ON SHORE - EXCAVATION & FILL DETAILS SHT 2

PIPING ON SHORE - HEAT TRACE PIPING - TYPICAL
PIPING ON SHORE - HEAT TRACE PIPE AT SHIP CONNECTION
PIPING ON SHORE - HEAT TRACE PIPING AT TANK CONNECTION

PIPING ON SHORE - INSULATION ARRANGEMENT
PIPING ON SHORE - INSULATION DETAILS

PAINT & GALVANIZING SCHEDULE

PIPING MATERIAL LIST

END

J. CAMERON McKERNAN COMPANY
Engineering & Naval Architecture
825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

RECEIVED
AUG 8 1997
KOPPERS INDS., INC.
PORTLAND, OR

File No. P97-10
August 7, 1997

City of Portland, Bureau of Planning
1120 SW Fifth Avenue, Room 1002
Portland, Oregon 97204-1966

COPY

Attention: Steve Gerber

Subject: Case File Number LUR 97-00666 GW
Supplemental Information regarding View Corridor

Reference: FAX from Steve Gerber 7/24/97 with
Information re Scenic Resources Plan

Enclosures:

* Revised Site Plan with View Corridor shown - one large scale and one small scale.

* Photograph looking down right boundary of View Corridor

Gentlemen:

In response to the View Corridor issue raised by your Mr. Gerber, we forward a revised Site Plan and a photo showing the View Corridor boundaries.

The Site Plan has been revised to show the View Corridor boundaries and a relocated westernmost tank. This new westernmost tank location is slightly south of the previously depicted location. We believe this new location is just outside of or possibly just touching the right boundary of the View Corridor.

In establishing the View Corridor on the revised Site Plan, we used the boundaries depicted on your maps 2221 and 2222 with scales of 1" = 200.' We believe the revised Site Plan is as accurate as possible without benefit of a survey and an accurate description of the View Corridor boundaries.

Study of the revised Site Plan shows the existing NW Natural Gas Company LNG tank is centered on the right boundary of the View Corridor. This existing tank is 109 feet above the ground level and effectively blocks the view of the right bank tower of the St. John's Bridge. The proposed new tank will not block the View Corridor that is already blocked by the existing NW Natural Gas Company LNG Tank.

Cont'd . . .

cc: AMOS KAMEYER

File No. P97-10
August 7, 1997

City of Portland, Bureau of Planning
(Attention: Steve Gerber)
Case File Number LUR 97-00666 GW
Supplemental Information regarding View Corridor

COPY

The photograph also shows an old distillation tower. This old distillation tower will be removed in order to make room for the new westernmost tank. Removal of the old distillation tower, even though outside the View Corridor, will improve the view.

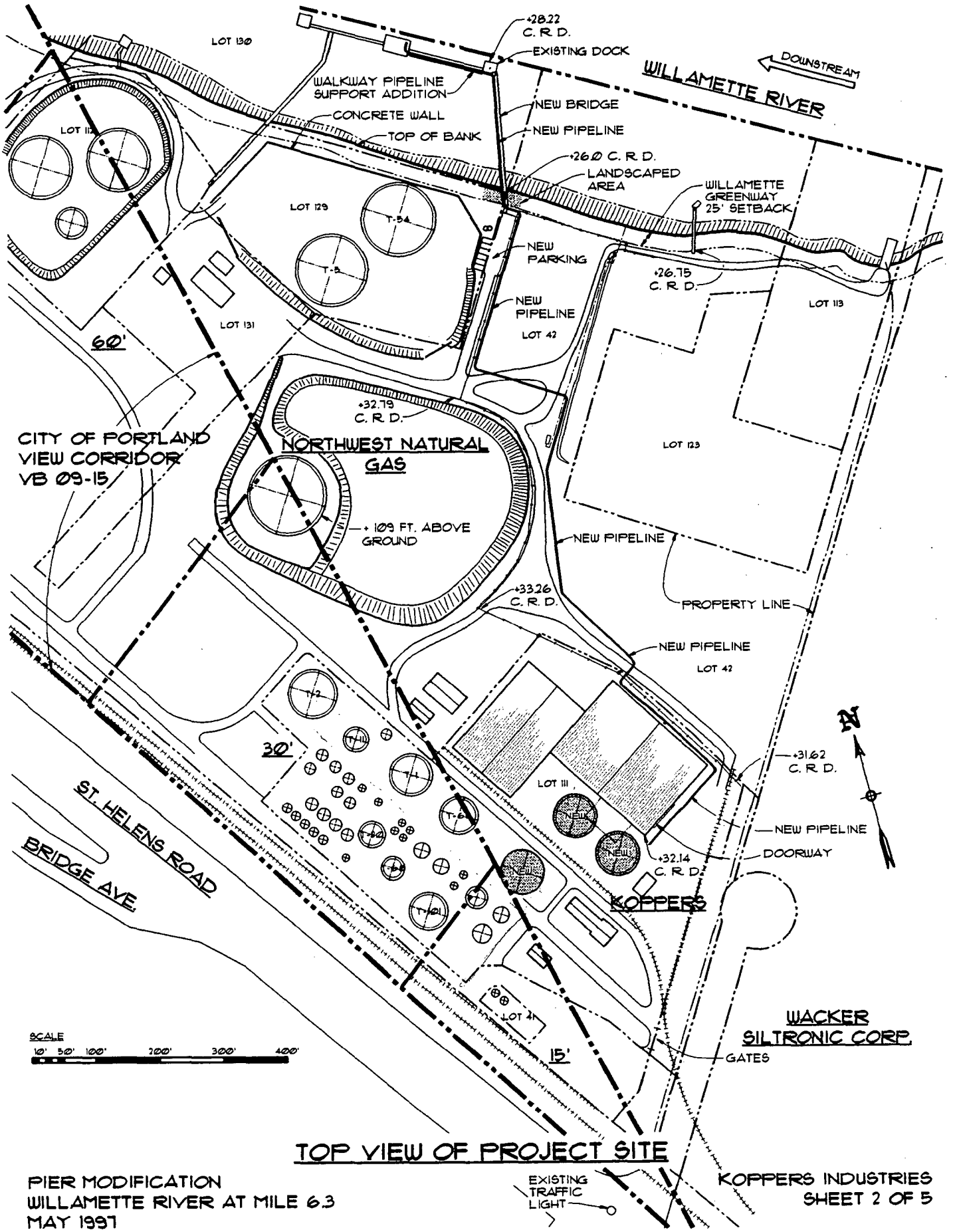
We believe the location of the westernmost new tank does not interfere with the View Corridor. We appreciate you bringing this potential problem to our attention. Please contact us if you need additional information to complete your Greenway Review.

Very truly yours,

J. CAMERON McKERNAN COMPANY,
Agent For Koppers Industries, Inc.

By: Cameron McKernan
J. Cameron McKernan, President

cc: Koppers Industries, Inc.
(Amos Kamerer)

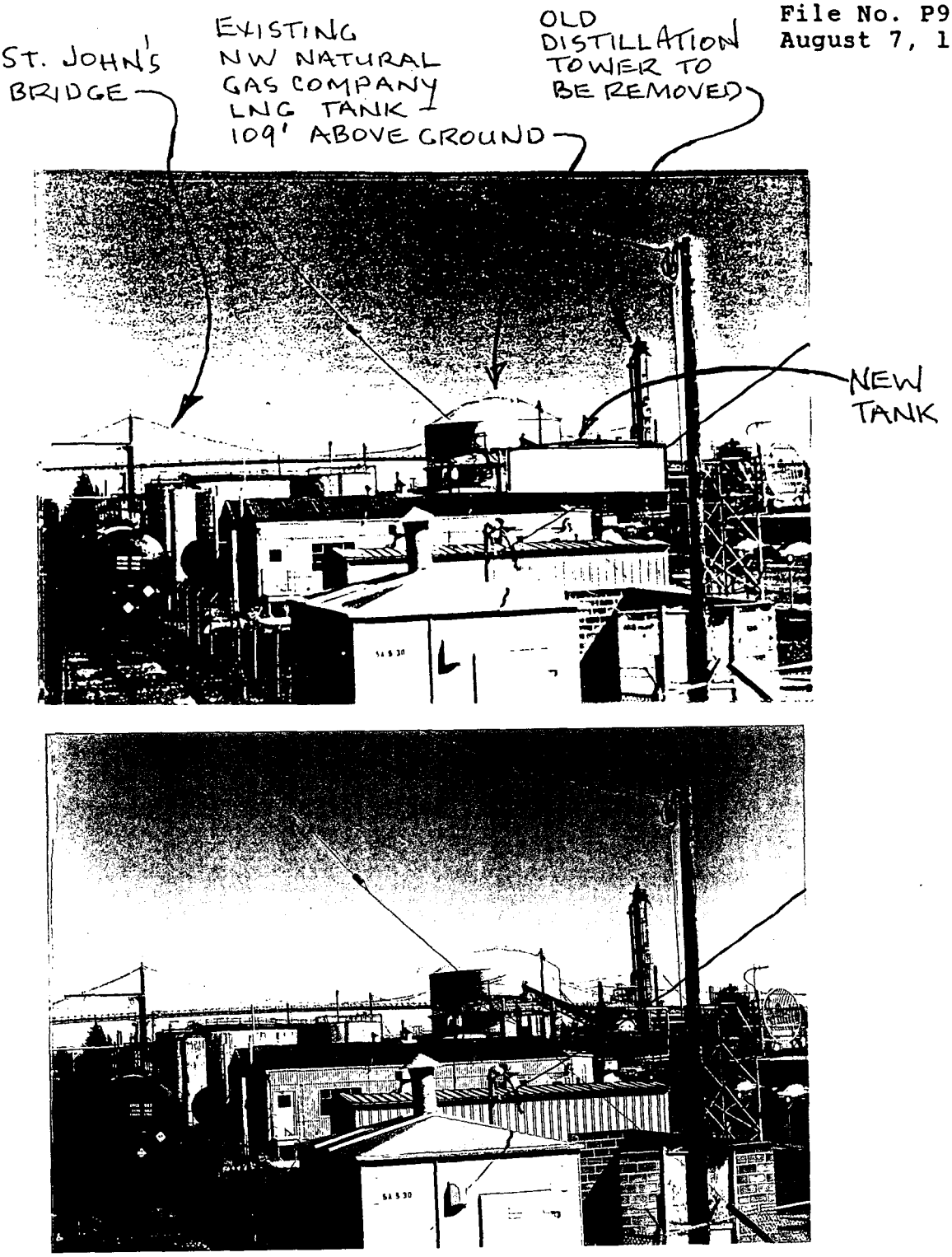


TOP VIEW OF PROJECT SITE

PIER MODIFICATION
WILLAMETTE RIVER AT MILE 6.3
MAY 1997
REV. AUGUST 7, 1997

KOPPERS INDUSTRIES
SHEET 2 OF 5

File No. P97-10
August 7, 1997



August 1, 1997
Photo Looking Down View Corridor
Right Boundary

Koppers Industries
7540 NW St. Helens Road
Portland, Oregon

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

July 21, 1997

INVOICE

NO: PI97-54

Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon 97210-3663

Attention: Amos Kamerer

Reference: Purchase Order No. 3000-7-9020

COPY

DESCRIPTION	AMOUNT
Portland Pitch Ship Unloading Pier & Pipe Line Project (INTERIM INVOICE for the period from 6-1-97 to 6-30-97) (McKernan Job No. P97-10)	
Engineering services to support the pitch ship unloading pier and pipe line project as outlined in McKernan letter dated 3/19/97. Services during this period are listed on the following page.	
CHARGES	
LABOR (Activity Logs attached):	
Principal engineer: ½ man-hours @ $75 per man-hour	$ 37.50
Clerical: 7 man-hours @ $35 per man-hour	245.00
MATERIAL (Receipts attached):	
- Fee for Affidavit from City of Portland in the Joint Permit Application to the State of Oregon	119.00
- Fees for parking at City of Portland Building re: Permit Applications	5.25
TOTAL AMOUNT DUE (7½ man-hours)	$406.75

TERMS: Net cash

July 21, 1997

Koppers Industries, Inc.
Pitch Ship Unloading Pier and Pipe Line Project
Purchase Order No. 3000-7-9020
McKernan Invoice No. PI97-54

COPY

DESCRIPTION AMOUNT

1. Contacted DEQ for information required in the State of Oregon Joint Permit Application.

2. Made a final check of the City of Portland Land Use Greenway Review Application.

3. Completed Joint Permit Application for the State of Oregon.

4. Visited Koppers on 6-20-97. Had Amos Kamerer sign the City of Portland and the State of Oregon Permit Application Forms and picked up a check for the Greenway Review Fee.

5. Visited City of Portland Planning Department on 6-23-97. Submitted Land Use/Greenway Review Application and fee.

6. Visited City of Portland Planning Department on 6-24-97. Had a City Planner sign Affidavit Section of the State of Oregon Joint Permit Application form stating they have received an application from us on this project.

7. Mailed State of Oregon Joint Permit Application on 6-27-97.

END

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING JUNE 30, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
6-17	N/C	Put in telephone call to Sandra Hart and Karla Urbanowicz of DEQ to find out he identification of the State's matter for the site contamination.
6-19	1/2	Did a final check on the permit applications. Telephoned Koppers and gave Linda the information on the amount of the check and told her I would probably come by tomorrow and pick it up.
6-20	N/C	(1 hour) Took the Permit Application Forms over to Amos Kamerer and had him sign the forms. Also picked up the check for the Greenway Permit Fee.

SIGNED [signature] DATE 7-3-97

1/2 mh

ACTIVITY LOG

NAME Mary-Anne J McKernan PERIOD ENDING 6-30-97

JOB NO: P97-10 NAME Koppers Terminal Permits

DATE	HOURS	DESCRIPTION OF ACTIVITY
6-23-97 Mon	½	Print forward letter to City for Greenway Application. Make copies of letters & the application for files & Koppers.
	2½	Go downtown to City of Portland Planning Dept. Reviewed Application and turned it in. Also paid fee.
	½	Type forwarding letter and check to get State Applicati Submitted to City for them to sign affidavit stating we are applying w/them also.
6-24-97 Tues.	1	Go downtown to City of Portland Planning Dept. Submit State Applications and fees for them to sign affidavit that we have turned in an application w/them also.
6-27-97 Fri	2½	Went to city Portland Planning Dept. to pick up signed Affidavits of State Permit Applications. After returning to office = discovered They stated no Greenway Application has been returned in. Returned downtown. Met w/city Planner. showed him copy Greenway Application and City Receipt. The State and City Applications got separated. He corrected affidavit Typed letters and made copies and packaged up Joint Permit Applications to State Eng. & Division St. Lands.

SIGNED Mary-Anne J McKernan DATE 6-27-97

7 mh

CI. OF PORTLAND - PLANNING BUR. U
PERMIT CENTER RECEIPT

PL Nº 112470

DATE: 24 June 97

NAME: J. Cameron McKenan Company
PHONE #: 232-7211
ADDRESS: 825 NE 20th St 118
CITY/ST/ZIP: Portland OR 97232
JOB ADDRESS: 7540 NW St. Helens
PERMIT #:

The following reviews require payment of the Hearings Officer fee:

Amount	Fee Code	Item Description
	0224	CCPD Height Transfer
	0202	Comp Plan Map Amendment
	0227	Conditional Use - Minor
	0203	Conditional Use - Major
	0204	Convenience Store Review
	0206	Environmental Conservation
	0229	Environmental Protection
	0225	Essential Service Provider
	0207	Excavation and Fill Reveiw
	0208	Greenway Review
	0209	Hazardous Substance Review
	0211	Industrial Park Review
	0213	Land Division - Major
	0223	Master Plan Review
	0215	Non-Conforming Use Review
	0216	Planned Unit Development
	0243	Property Tax Exemption
	0230	Reasonable Use Review
	0218	Revocable Permit Extension
	0231	Rocky Butte Hist. Features
	0220	Statewide Planning Goal
	0221	Sub-Standard Lot Review
	0232	Tree Removal Review
	0222	Zoning Map Amendment
	0254	Hearings Officer Fee

These reviews do not require payment of the Hearings Officer fee:

Amount	Fee Code	Item Description
	0201	Adjustment Review
	0228	Design Review - Minor
	0205	Design Review - Major
	0210	Historic Landmark Reviews
	0214	Land Division - Minor
	0212	Lot Line Adjusment
	0233	Non-Conf Use Establishment
	0217	Pre-Application Conference
	0244	Plan Check
$119.00	0251	Zoning Confirmation
	0253	Document and Map Sales

JUN 24 1997
CITY OF PORTLAND

$119.00 **TOTAL FEES**

6191
___ Cash
X Check
___ TF
___ Bill to:

Bureau Staff:

LE: 7/91

J. CAMERON McKERNAN COMPANY
ENGINEERING & NAVAL ARCHITECTURE
(503)232-7211
825 NORTHEAST 20TH AVENUE, SUITE 110
PORTLAND, OREGON 97232

6181

91-119
1221(1)

DATE June 24, 1997

PAY
TO THE
ORDER OF City of Portland $ *119.00*

DOLLARS

WELLS FARGO BANK
812 SOUTHEAST MORRISON STREET, PORTLAND, OR 97214

J. CAMERON McKERNAN COMPANY

FOR State Joint Permit Application Affidavit BY J. Cameron McKernan

"006181" :122101191:0419 667508"

TTLAMT 2.25

843A 12:41

PORTLAND BLDG.
PARKING GARAGE
THANK YOU

06/23/97

Parking @ City of Portland Bureau
turning Koppers Greenway Apps.
P97-10

(425) auto $ 2.25 6-23-97

PORTLAND BLDG.
PARKING GARAGE
THANK YOU

06/24/97

000002P
1 HOUR 1.00
CASH 1.50

126A 11:57

Parking @ City of Portland
turn in Koppers State Permit Applications
for City Affidavit that we have an
application in w/them also.

✓

(425) Auto $1.50 6-24-97

TTLAMT 0.75

0423A 11:50

PORTLAND BLDG.
PARKING GARAGE
THANK YOU

06/27/97

Signed not received Greenway App

The State & Greenway Apps got separated I guess

PORTLAND BLDG.
PARKING GARAGE
THANK YOU

Corrected yes received Greenway App

I showed receipt from City as proof of submitting Greenway App

06/27/97

TTLAMT 0.75

0227A 11:07

Re Koppers P97-10

To Pick up State Permit Applications after City Planner signed Affidavit

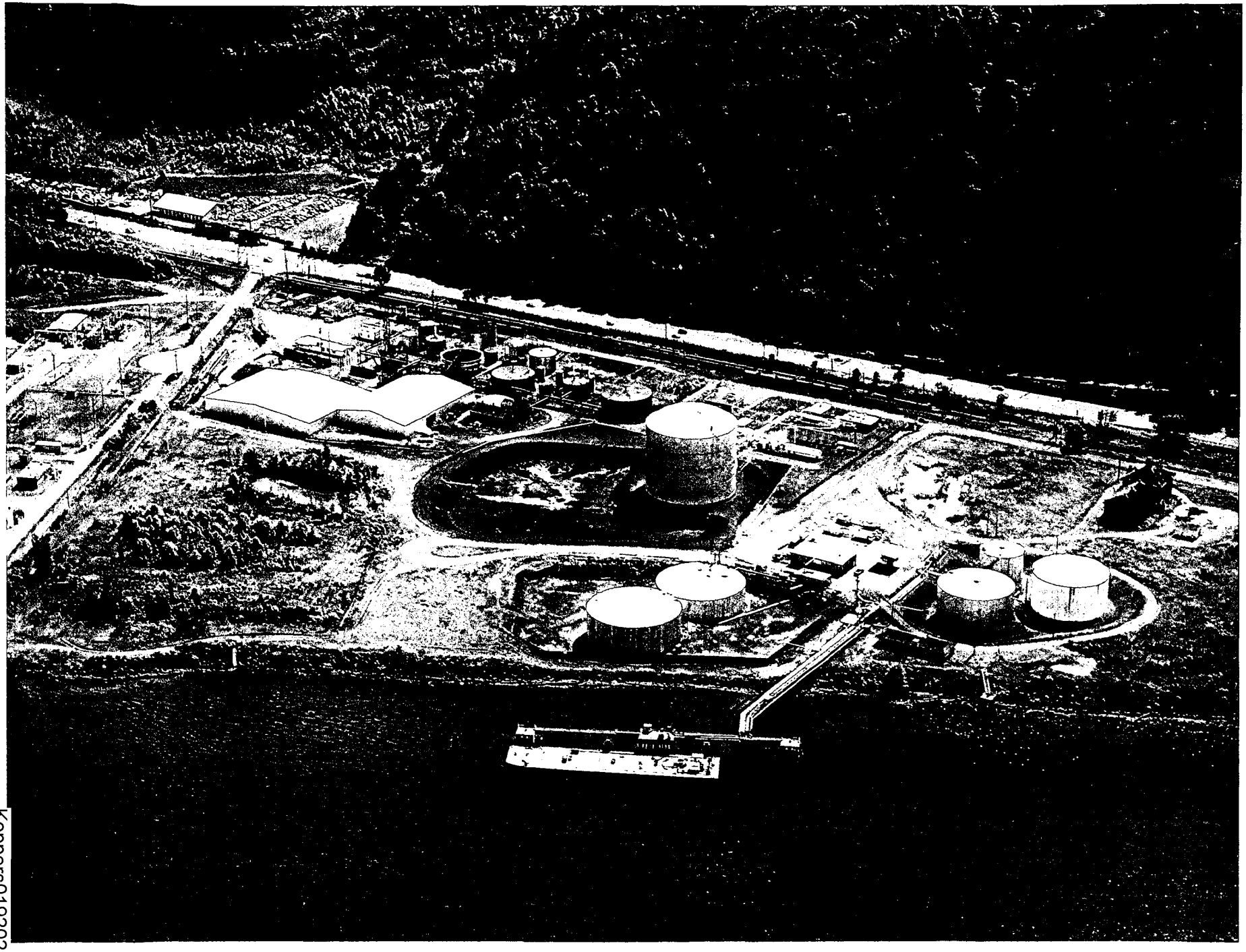
Mary-Anne

✓

(425) auto

$1.50

6-27-97



SITE: KOPPERS INDUSTRIES UPPER LEFT;
PACIFIC NORTHERN OIL DOCK IN FOREGROUND

Extra

Koppers019202

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

May 7, 1997

INVOICE

RECEIVED

MAY - 8 1997

KOPPERS INDS., INC.
PORTLAND, OR

COPY

NO: PI97-34

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

Attention: James T. Dietz

Reference: Purchase Order No. 3000-7-9020

DESCRIPTION		AMOUNT
Portland Pitch Ship Unloading Pier & Pipe Line Project (INTERIM INVOICE for the period from "start" to 4-30-97) (McKernan Job No. P97-10)		
Engineering services to support the pitch ship unloading pier and pipe line project as outlined in McKernan letter dated 3/19/97. Services during this period are listed on the following pages.		
CHARGES		
LABOR (Summary & Activity Logs attached):		
Principal engineer: 59 man-hours @ $75 per man-hour . . .	$4,425.00	
Senior Designer/Drafter: 96¾ man-hours @ $35 per man-hour . . .	3,386.25	
Labor total (155¾ man-hours)	$7,811.25	$ 7,811.25
MATERIAL (copy of receipt & invoice attached):		
Photo reprints of site	82.50	
Minister-Glaeser surveying services. . . .	2,240.00	
Material total	$2,322.50	2,322.50
TOTAL AMOUNT DUE		$10,133.75

TERMS: Net cash

May 7, 1997

Koppers Industries, Inc. (Attention: J. Dietz)
Pitch Ship Unloading Pier and Pipe Line Project
Purchase Order No. 3000-7-9020
McKernan Invoice No. PI97-34

DESCRIPTION COPY AMOUNT

1. (NO CHARGE) Visited Koppers Terminal on 3-11-97. Met with Jim Dietz, Amos Kamerer of Koppers and Christian Nielsen of Tar Tech International to discuss the project.

2. Visited Koppers Terminal on 3-13-97. Met with Jim Dietz, Amos Kamerer, and Bill Swearingen to discuss the scope and schedule of my involvement in the project.

3. Hired Minister-Glaeser to survey the existing site and "stake" out the new pipe line route. Met with them at the Koppers Terminal on 4-3-97 to do the survey.

4. Prepared "SITE PLAN" incorporating previous drawings and new survey drawings.

5. Prepared "LANDSCAPE PLAN" and a specification for the landscaping.

6. Drafted PRELIMINARY City of Portland Land Use Review/Greenway Review Application. Hand delivered 2 copies to Amos Kamerer on 4-11-97.

7. Visited Koppers Terminal on 4-11-97. Met with Amos Kamerer and Stephen Brown of Gearbulk to discuss the project particularly projected cargos.

8. Corresponded with Gearbulk to obtain additional data on projected ship and cargo sizes.

9. Corresponded with Tar Tech International to obtain detailed information for the walkway and pipe support design.

10. Attended meeting at Northwest Natural Gas Company headquarters with Amos Kamerer on 4-15-97. Discussed project with their property manager and environmental specialist.

11. Prepared the following bridge concept plans:

"ACCESS BRIDGE - PILING SUPPORTED CONCEPT" Plan No. 97010-SK1
"ACCESS BRIDGE - SINGLE SPAN CONCEPT" Plan No. 97010-SK2

Cont'd . . .

May 7, 1997

Koppers Industries, Inc. (Attention: J. Dietz)
Pitch Ship Unloading Pier and Pipe Line Project
Purchase Order No. 3000-7-9020
McKernan Invoice No. PI97-34

COPY

DESCRIPTION AMOUNT

12. Completed final draft of the City of Portland Land Use Review/Greenway Review Application incorporating comments from Amos Kamerer.

13. Visited Koppers Terminal on 4-18-97. Delivered 2 copies of the Permit Application and Plans prepared to date to Amos Kamerer.

14. Worked with Glumac to obtain information for the pipe lay out and supports. Had several telephone conversations, exchanged drawings, and had a meeting on 4-25-97.

15. Revised the Site Plan to relocate the pipe line so it goes on the inside of the fence and up along the road as requested by Northwest Natural Gas Company.

16. Contacted contractors for pricing on some of th site work and on the water work.

17. Started drafting the Joint Corps of Engineers and State of Oregon Permit Application.

18. Prepared the following additional plans for use in estimating costs:

    "SECTIONS" - - - Plan No. 97010-SK4
    "PIPE LINE SUPPORTS" Plan No. 97010-SK4

19. Visited Glumac offices on 4-30-97. Attended joint meeting of all the project participants to correlate estimates for the construction.

End

May 7, 1997

Koppers Industries, Inc. (Attention: J. Dietz)
Pitch Ship Unloading Pier and Pipe Line Project
Purchase Order No. 3000-7-9020
McKernan Invoice No. PI97-34

COPY

LABOR SUMMARY
(From "start" through 4-30-97)

Period ending:	3/15	3/31	4/15	4/30	TOTAL
Principal Engineer:					
McKernan	5½	6½	29½	17½	59
Senior Designer/Drafter:					
Kincaid	15½	14	21¼	46	96¾
					155¾ man-hours

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING MARCH 15, 1997

JOB NO: P97-10 NAME PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
3-11	N/C	(1 1/2 hours) Attended meeting at Koppers with James Dietz, Manager of Engineering, Amos Kamerer, Regional Sales Manager, and Christian Nielsen of Tar Tech International to discuss the engineering of a marine terminal and pipe line to receive coal tar pitch from ships.
3-12	1	Reviewed the old job files for this project. Pulled out some of the information that will applicable to this project such as the survey drawings. Did a fairly comprehensive review of the old files.
	1	Went over and visited the Pacific Northern Oil Dock just to re-familiarize myself with the dock.
3-13	3	Meeting at Koppers with Jim Deitz, Bill Swearingen, and Amos Kamerer to discuss the scope and schedule of project at least my involvement. Instructed Mary-Anne to go over to the City Planning Offices and get the current up-to-date instructions and forms for a Land Use Review.
	1/2	Instructed Michael to start making a site plan for the project and to convert the drawing that we have (which is a pencil drawing) into a CAD drawing.

SIGNED JCMK DATE 3-20-97

5½ mh

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING MARCH 31, 1997

JOB NO: P97-10 NAME PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
3-17	1	Went over to Hugh Ackroyd and ordered 6 prints for the applications. Marked the prints so he could make the copies of them.
3-18	1/2	Contacted Bob Glaser of Minster & Glaser Surveyors to make tentative arrangement to survey the site for this pipe line.
	N/C	(1/2 hour) Prepared a draft of the letter for the engineering cost.
3-19	1 1/2	Wrote a letter to Tar Tech requesting information for the dock walkway and pipe support design. Obtained the site plan and survey drawings, property line drawings, from the gas company. Briefly reviewed them with Michael so that we can make our site plan agree with them.
3-24	2 1/2	Went to Koppers and visited with Amos Kamerer. We toured the property and viewed the run for the pipe line, the location for the new storage tanks, the site of the new bridge, and small parking lot.
3-25	1/2	General hassle with Mary-Anne and Mike about getting the 3 or 4 transmissions we receive by email today reverse encoded so that we can get the information on our AutoCAD system. Mary was finally able to do that.
3-26	1/2	Brief discussion with Michael about what we're going to do to finish this site plan. Telephone conversation with Jim Latalla of Glumac regarding the site plan that he sent me.

SIGNED JCMK DATE 4-1-97

6+2mh

ACTIVITY LOG

NAME MICHAEL H. KINCAID PERIOD ENDING MARCH 31, 1997

JOB NO: P97-10 NAME KOPPERS

DATE	HOURS	DESCRIPTION OF ACTIVITY
3-17-97	6	WORKED ON SITE PLAN.
3-18-97	1	DID SOME MINOR CHANGES TO SITE PLAN.
3-21-97	3	WORKED ON SITE PLAN. STARTED TO USE SITE PLAN FROM KOPPERS (PLANS RECEIVED)
3-25-97	½	SPENT TIME TRYING TO FIGURE OUT WHAT WAS SENT TO US FROM KOPPERS (E-MAIL)
3-26-97	½	DID SOME STUFF WITH THE DRAWING WE RECEIVED FROM KOPPERS (COMPUTER FILE)
3-27-97	2	WORKED ON COMBINING COMPUTER SITE PLAN FROM KOPPERS AND OUR SITE PLAN
3-28-97	1	WORKED ON SITE PLAN

SIGNED Michael H. Kincaid DATE 4-1-97

14mh

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING APRIL 15, 1997

JOB NO: P97-10 NAME PITCH SHIP TERMINAL (1 OF 2)

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-3	2	Went directly from the house to Koppers. Met with the surveyors from Minister & Glaeser; Tim Scott & David Proudfit. Went over the ground with them and explained the project and explained what I wanted to do in the way of locating the various features on the ground and particularly the distance from the pier dolphin to the top of the bank. They immediately measured that and it was 177 feet. We traced the whole length of the pipe line and along the top of the bank where the berms were for the tank enclosures along side where they were going to have this bridge.
4-4	2	Worked with Mike to show how I wanted to have the site plan reworked and the information added and correlated. Laid out where the new tanks were going to be and the new pipe line.
4-6	4	Studied the City of Portland Greenway Review documents. Drafted an Application for Greenway Review. Completed the draft except for the questions.
4-7	2	Instructed Mary on typing the draft of the City of Portland Application. Asked her to go down to the City and clarify, if she could, the requirement for "other questions" and asked her to go over to the Corps of Engineers and check that the form we have is the proper form. Talked with Bob Glaeser about where to send his invoice. Later talked to Jim Laitila at Glumac about the tanks. Checked with Michael Kincaid in the office about getting the plans done. Found out that he really hadn't made any over the weekend.
4-8	3	Worked with Michael and we got the site plan finished and checked and ready to send out. Had him make the reduced size site plan for the applications for permits. Received the survey map from Minister & Glaeser today. Reviewed that map. Had Michael incorporate some of the detailed dimension into our site plan.
4-9	2 1/2	Worked with Mike to get the landscape plan done. Drafted a specification for the landscaping.
4-10	5	Completed the preliminary of the City of Portland Greenway Review Application. Made a couple copies of the completed draft. Got ready for a meeting with Amos Kamerer tomorrow about the dock. Packed up the files and the drafts of the Greenway Review.
	20 1/2	CONT'D. . .

SIGNED J. Cameron McKernan DATE 4-25-97

29 1/2 = both sheets 1 of 2

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING APRIL 15, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL (2 OF 2)

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-11	3	Met at Koppers office with Amos Kamerer and Stephen Brown of Gearbulk. Discussed the dock in quite a bit of detail and the project in general. Amos went over the projected cargos as they would be incrementally acquired. Made a tour of the site including the end of the new access bridge and out on the pier itself. Noted the dolphins that had been put in there for barges.
	1/2	When I came back to the office later I looked up the Lord fender system for the present dock and had Mary FAX the catalog cuts for those fenders to Stephen Brown.
4-13	4	Worked up a design for the access bridge using piling supports. Made a weight estimate and a cost estimate. Worked up a design for the access bridge without any piling. Made a weight estimate and a cost estimate for it.
4-15	1 1/2	Attended a meeting at Northwest Natural Gas Company headquarters with Amos Kamerer. Met with the gas company's property manager and environmental specialist and discussed the dock project.
	9	

SIGNED _____ DATE 4-25-97

2 of 2

ACTIVITY LOG

NAME MICHAEL H KINCAID PERIOD ENDING APR 15, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIPTERMINA

DATE	HOURS	DESCRIPTION OF ACTIVITY
1-4-97	1	HAD DISCUSSION W/ CAM ABOUT SITE PLAN AFTER INFORMATION WAS RECEIVED.
1-8-97	11 1/4	WORKED ON SITE PLAN. REVIEWED PLAN W/ CAM AFTER PLOTTING. WHEN CHANGES WERE INCORPORATED, CREATED 8 1/2 x 11 DRAWING OF SITE. DISCUSSED LANDSCAPE PLAN W/ CAM
4-9-97	3	WORKED ON LANDSCAPE PLAN MADE SMALL CHANGES TO 97010-1 AND MATCHING 8 1/2 x 11 DRAWING. PLOTTED ALL DRAWINGS.
4-10-97	3/4	WORKED ON ALL DRAWINGS (97010-1 8 1/2 x 11 DRAWING, & LANDSCAPE PLAN)
4-11-97	1/2	HAD DISCUSSION W/ CAM ABOUT PROJECT (DISCUSSION ABOUT BRIDGE)
4-14-97	4 3/4	WORKED ON PLAN & ELEVATION OF DOCK / BANK / BRIDGE (97610 - SK1) PLOTTED DRAWING FOR CAM TO REVIEW.

SIGNED MHK DATE 4-16-97

21 1/4 mh

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING APRIL 30, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-18	2 1/2	Completed the final preliminary draft of the City of Portland Greenway Permit Application and made 2 copies of it. Worked with Michael reviewing the drawings for the 2 different bridge access concepts. Marked them up and he revised them. He and Esteban then plotted them and ran me 2 prints. Went over and visited Amos Kamerer briefly at Koppers and discussed the 2 bridge concepts and discussed my concern about the adequacy of that pier for handling as big a ship as they are talking about bringing in there.
4-25	4	Reviewed Mike's site plan and had him revise it to relocate the pipeline so it goes on the inside of the fence and up along the road as requested by the gas company. He made the revision on the screen, I checked it, and he plotted it out. Went over to Glumac with my plans and met with John Duffy. Received a bunch of the TarTech drawings and standard sheets for fabrication. Did some analyses of the piping loads to determine how accurate we had to be in aligning the heights of the supports. Made a sketch of a possible reinforced concrete base for the pipe supports.
4-28	3	Contacted some perspective contractors in order to get prices for some of the site work on the water side. Contacted Chuck Chandler at Chandler Electric, Hal Hickman of Hal's Construction, Rod Monroe of Smith, Monroe & Gray, an engineering firm that I would use to help with the design of the bridge. Outlined the project with them and told them I would be sending some more data and information to them. Worked up some general calculations to determine the expansion of the piping because of the temperature. Instructed Mike to make some sketches of the piping and the pedestals and the road and the parking area next to the dock so we can estimates for the work.
4-29	5	Worked with Michael to get the site plan and the landscape plan for the Greenway Application revised so the Greenway Application can be signed tomorrow if Koppers is ready to do that. Reviewed Mary's draft of the Corps & State of Oregon Permit Application and marked it up for her to revise. I'll wait until after the meeting tomorrow to finish it. Had Michael complete the sketch on the piping supports and kind of a detail of a pad to set the pipes on. Made preparations for the meetings tomorrow. Got my files in order, my calculations in order, and assembled the drawings and sketches that I prepared.
4-30	3	Attended a meeting at Glumac for the purposes of correlating the estimates for the construction. Gathered my files and got ready for the meeting. Participated in the meeting with some explanations of what has to be done along the waterfront. Got one assignment from the meeting, that is to contact the Fire Marshall and find out what he's going to want in the way of a fire protection system on the pier and in the plant area.

SIGNED JCMK DATE 5-3-97

17½ mh

ACTIVITY LOG

NAME MICHAEL H. KINCAID PERIOD ENDING APRIL 30, 1997

JOB NO: P97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
/16/97	½	HAD DISCUSSION w/ CAM ABOUT PROJECT.
/17/97	7½	WORKED ON SHEETS 97010-SK1 & 97010-SK2. PLOTTED DRAWINGS FOR CAM TO REVIEW.
/18/97	6½	AFTER HAVING REVIEW w/ CAM ABOUT DRAWINGS MADE CHANGES AND PLOTTED THEM ON VELLUM.
/21/97	4	WORKED ON VARIOUS THINGS CONCERNING SHEETS 97010-SK1 & 97010-SK2.
/22/97	5	WORKED ON CROSS SECTIONS OF BRIDGES (97010-SK3)
/23/97	2	WORKED ON SHEET 97010-SK3
/24/97	2	WORKED ON SHEET 97010-SK3
/25/97	3½	WORKED ON ALL SHEETS (MOVED LOCATION OF PIPE RUN). MADE PLOT OF ALL DRAWINGS. WORKED ON WEIGHT OF PIPE.
/28/97	6½	MADE PLOT OF SURVEYED DRAWING. MADE A DRAWING OF PARKING AND DRIVE AREA TO BE FILLED WITH GRAVEL. WORKED ON DRAWING OF CONCRETE PAD SUPPORT FOR PIPE (96023-SK4)
/29/97	8½	WORKED ON SHEETS 97010-1, -SK4, PERMIT AND LANDSCAPE DRAWINGS. PLOTTED ALL DRAWINGS

SIGNED [signature] DATE 5-1-97

46 mh

Ackroyd photography, inc.

3840 N.W. YEON AVENUE
P.O. BOX 10101
PORTLAND, OREGON 97210

Telephones: (day or night) (503) 227-5694
Car Phone: (503) 320-4503
FAX: (503) 227-1740

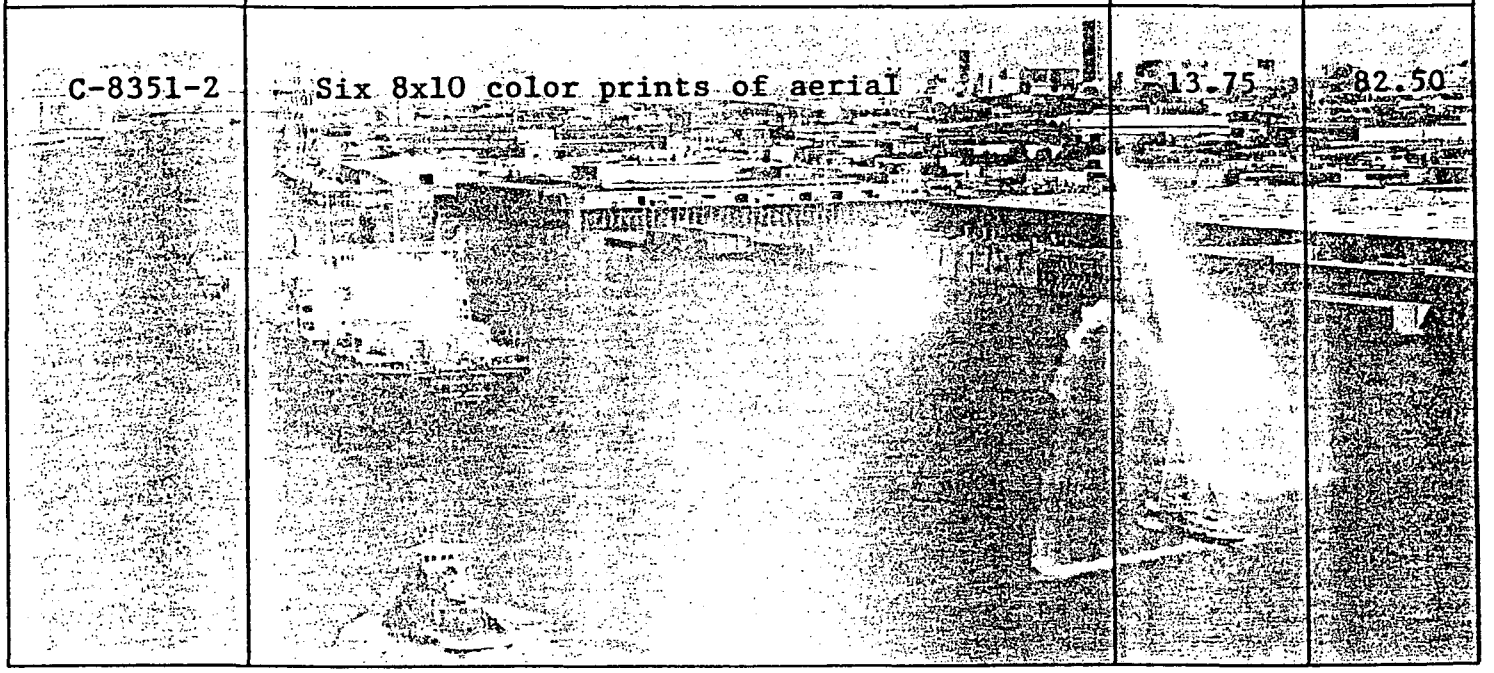
INVOICE NO. 8505
DATE March 19, 1997
YOUR ORDER NO.
ATTENTION OF:

Mr. J. Cameron McKernan
825 NE 20th Avenue, Suite 110
Portland, OR 97232

TERMS: Net 30 days, 1½% per month on over due balance.

Negatives for all photography are property of the studio and are held subject to reorders at any time. Customers requiring negatives for their own files may acquire ownership by paying 50 per cent of the charge for the original photography, additional, if arranged for in advance.

NUMBER	DESCRIPTION	UNIT PRICE	AMOUNT
C-8351-2	Six 8x10 color prints of aerial	13.75	82.50



LIFE MEMBER AMERICAN SOCIETY OF MEDIA PHOTOGRAPHERS

Photos for Ditch Ship Terminal
-for Koppers P97-10 ✓6079

(427) camera $82.50 3-24-97

MINISTER-GLAESER
SURVEYING INC.

(360) 694-3313
FAX (360) 694-8410
2200 E. EVERGREEN
VANCOUVER, WA 98661

May 7, 1997

J. Cameron McKernan Company
825 N.E. 20th Avenue, Suite 110
Portland, OR 97232

BILLING: Topographic Survey
Oregon
Job #97-096

DESCRIPTION OF SERVICE:

Locate bench mark and run levels; topographic survey; prepare Auto CAD maps.

2 Person Field Crew	15 hrs @ $110.00/hour	=	$1,650.00
CAD/Survey Tech.	8 hrs @ $ 55.00/hour	=	$ 440.00
Supervisor	2 hrs @ $ 75.00/hour	=	$ 150.00

	Amount
Balance of Current Service	$2,240.00
Balance due	$2,240.00

NOTE: ALL ACCOUNTS ARE DUE 30 DAYS AFTER BILLING. A 1.5% LATE CHARGE WILL BE ASSESSED TO ALL ACCOUNTS OVER 30 DAYS.

RWG/tlm

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

KOPPERS INDUSTRIES

Purchase Order

Date: April 1, 1997
Page: 1

Purchase Order # 3000-7-9020
Contact: RICHARD J. COOK, 412-826-3906

To: J. Cameron McKernan Company
Suite 110, 825 N. E. 20th Avenue
Portland OR 97232

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
COPY	REQUISITION: J. DIETZ ENGINEERING SERVICES **FORM INS** **EXHIBIT A - OSHA COMPLIANCE** Seller is to provide necessary personnel and insurance to perform the engineering tasks as outlined in seller's letter dated 3/19/97 at Koppers Industries' facility in Portland, OR. This order is issued on a time and material, not-to-exceed basis. Contractor is required to have time sheets signed daily by proper Koppers Industries, Inc. supervisor. Time sheets are to indicate number of vendor's employees used, hours secured and area in which labor was used. Contractor is to include with each invoice a copy of said daily time sheets which will be used as backup for invoices. If, for any reason, the daily time sheets are not approved by proper Koppers Industries, Inc. supervisor, payment cannot be rendered. **PRIOR TO MAKING THE FIRST DELIVERY OR PERFORMING ANY SERVICE AGAINST THIS ORDER, SELLER IS REQUIRED TO SUBMIT ONE COPY OF AN INSURANCE CERTIFICATE IN ACCORDANCE WITH THE ATTACHED FORM INS (HIS AND ALL OF HIS SUBCONTRACTORS) CLEARLY SHOWING KOPPERS INDUSTRIES AS ADDITIONAL INSURED TO KOPPERS INDUSTRIES PLANT, ATTENTION PLANT MANAGER AND TO KOPPERS INDUSTRIES, INC., 1005 WILLIAM PITT WAY, PITTSBURGH, PA 15238-1362, ATTENTION THE UNDERSIGNED. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL CAUSE A DELAY IN RELEASES AND/OR CAUSE THIS ORDER TO BE TERMINATED.** CONTRACTOR AND/OR SELLER AGREES TO BE GOVERNED AND ABIDE BY THE RULES AND REGULATIONS AS SET FORTH IN PAMPHLET ENTITLED "SAFETY REGULATIONS FOR CONTRACTOR WORKING IN KOPPERS INDUSTRIES' PLANTS." A COPY OF THIS PAMPHLET IS TO BE OBTAINED FROM THE LOCAL PLANT MANAGER. Send original and two copies of all invoices to: KOPPERS INDUSTRIES, INC. 1005 WILLIAM PITT WAY PITTSBURGH PA 15238-1362 ATTENTION: J. DIETZ	NOT TO EXCEED $15,000.00

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

KOPPERS INDUSTRIES

Purchase Order

Date: April 1, 1997
Page: 2

Purchase Order # 3000-7-9020

Contact: RICHARD J. COOK, 412-826-3906

To: J. Cameron McKernan Company
Suite 110, 825 N. E. 20th Avenue
Portland OR 97232

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	Send one copy of all invoices to: KOPPERS INDUSTRIES, INC. PURCHASING DEPARTMENT 1005 WILLIAM PITT WAY PITTSBURGH, PA 15238-1362 ATTENTION: RICHARD J. COOK **PRICE:** Based on letter #P97-10 dated 3/19/97 and time and material rates therein. **FOB:** Jobsite **SHIP:** As required **TERMS:** Net 30 days ALL FEDERAL EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION REQUIREMENTS IN REGARD TO RACE, SEX, RELIGION, NATIONAL ORIGIN, HANDICAP AND VIETNAM VETERAN OR DISABLED VETERAN STATUS, AS FOUND IN 41 CFR 60-1.4, 41 CFR 60-250.3, AND 41 CFR 741.3, ARE HEREIN INCORPORATED BY REFERENCE. KOPPERS INDUSTRIES IS ENTITLED TO ALL REMEDIES PURSUANT TO THE UNIFORM COMMERCIAL CODE. Confirming verbal order to Mary Ann 3/27/97 - **DO NOT DUPLICATE** **PLEASE ACKNOWLEDGE YOUR ACCEPTANCE OF THIS ORDER BY SIGNING AND RETURNING THE ATTACHED COPY.** ACCEPTED BY: _____ _____ KOPPERS INDUSTRIES, INC. SELLER'S AUTHORIZED SIGNATURE AUTHORIZED SIGNATURE RICHARD J. COOK/sad TITLE _____ CC: J. Dietz - UPARC TOTAL NOT TO EXCEED:	$15,000.00

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

KOPPERS INDUSTRIES

Purchase Order

Date: April 1, 1997
Page: 1

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COPY	REQUISITION: J. DIETZ ENGINEERING SERVICES **FORM INS** **EXHIBIT A - OSHA COMPLIANCE** Seller is to provide necessary personnel and insurance to perform the engineering tasks as outlined in seller's letter dated 3/19/97 at Koppers Industries' facility in Portland, OR. This order is issued on a time and material, not-to-exceed basis. Contractor is required to have time sheets signed daily by proper Koppers Industries, Inc. supervisor. Time sheets are to indicate number of vendor's employees used, hours secured and area in which labor was used. Contractor is to include with each invoice a copy of said daily time sheets which will be used as backup for invoices. If, for any reason, the daily time sheets are not approved by proper Koppers Industries, Inc. supervisor, payment cannot be rendered. **PRIOR TO MAKING THE FIRST DELIVERY OR PERFORMING ANY SERVICE AGAINST THIS ORDER, SELLER IS REQUIRED TO SUBMIT ONE COPY OF AN INSURANCE CERTIFICATE IN ACCORDANCE WITH THE ATTACHED FORM INS (HIS AND ALL OF HIS SUBCONTRACTORS) CLEARLY SHOWING KOPPERS INDUSTRIES AS ADDITIONAL INSURED TO KOPPERS INDUSTRIES PLANT, ATTENTION PLANT MANAGER AND TO KOPPERS INDUSTRIES, INC., 1005 WILLIAM PITT WAY, PITTSBURGH, PA 15238-1362, ATTENTION THE UNDERSIGNED. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL CAUSE A DELAY IN RELEASES AND/OR CAUSE THIS ORDER TO BE TERMINATED.** CONTRACTOR AND/OR SELLER AGREES TO BE GOVERNED AND ABIDE BY THE RULES AND REGULATIONS AS SET FORTH IN PAMPHLET ENTITLED "SAFETY REGULATIONS FOR CONTRACTOR WORKING IN KOPPERS INDUSTRIES' PLANTS." A COPY OF THIS PAMPHLET IS TO BE OBTAINED FROM THE LOCAL PLANT MANAGER. Send original and two copies of all invoices to: KOPPERS INDUSTRIES, INC. 1005 WILLIAM PITT WAY PITTSBURGH PA 15238-1362 ATTENTION: J. DIETZ	NOT TO EXCEED $15,000.00

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

KOPPERS INDUSTRIES

Purchase Order

Date: April 1, 1997
Page: 2

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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

COPY

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

COPY

* 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

COPY

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
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

COPY

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: Cameron McKernan
J. Cameron McKernan, President

cc: KOPPERS INDUSTRIES (James T. Dietz)

10/22/1999 10:23 5032489464 MCDOWELL WELDING PAGE 02

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

BCD DEPARTMENT USE ONLY
Permit no. 599 – 10624
☒ Approved ☐ Denied
Date: 10/22/99
By:

MWP# 92070

Applicant Business name: MCDOWELL WELDING & PIPE FITTING, INC.
Address 1: 9000 NW SAINT HELENS ROAD
Address 2:
City: PORTLAND State: OREGON ZIP: 97210

(503) 243-3979

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.: 599-2363	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 NW 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: CLAY RHODES	Inspector signature:	Employed by: STATE OF OREGON	Phone:

DEPARTMENT OF CONSUMER & BUSINESS SERVICES
440-2363 (12/97/COM4)

AOR - 95 (CIGNA)

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
December 8, 1999

U. S. Coast Guard
6767 N Basin Avenue
Portland, Oregon

Subject: Pacific Terminal Services Inc. (Koppers Industries, Inc.)
Portland Marine Fuel Oil Facility
Operations Manual Revision

COPY

Enclosures (revised pages):

i Revision Record
1 Table of Contents
4
4a
7
8
8a
9
10
10a
12
13
14
15
21 Appendix C Facility Layout Drawings (FIG. 2-3 & FIG. 3-3)

RECEIVED
DEC - 9 1999
KOPPERS INDS, INC.
PORTLAND OR

Gentlemen:

We send the changed pages incorporating your comments for your review. Please insert these pages in the appropriate locations in the previously submitted manual.

Note: The revision areas are flagged with a vertical line and symbol 4_2|.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Agent for Pacific Terminal Services, Inc.

By: J. Cameron McKernan

J. Cameron McKernan, President

cc: Pacific Terminal Services, Inc.
Koppers Industries, Inc.

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
November 22, 1999

Permits
Portland Fire & Rescue
56 SW Ash
Portland, Oregon 97204

COPY

Attention: Doug Friant

Subject: Koppers Industries, Inc./Pacific Northern Oil Pier
7540 NW St. Helens Road, Portland
Permit Application for New "Hot Oil Expansion Tank" Installation

Enclosures:

1. Application for Permit to Install Tank
2. Check for Permit Fees

Two copies each:

3. "Site Plan" Plan No. 97010-2, Rev. 4, (2 copies)
4. "Hot Oil System P & I Diagram" Plan No. 6526-D005, Rev. 0
5. "Hot Oil Pressure Vessel General Assembly" Drawing No. 963898-001, Rev. 0
6. "Hot Oil Pressure Vessel Manway Details" Drawing No. 963898-002, Rev. 0
7. "Hot Oil Pressure Vessel Manway Details" Drawing No. 963898-003, Rev. 0
8. Form U-1A Manufacturer's Data Report for Pressure Vessels Dated 10-20-99
9. Material Safety Data Sheet for CALORIA HT 43

Gentlemen:

We submit Application for Permit to install a hot oil expansion tank & associated piping. We enclose the required plans and permit fees.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
AGENT FOR KOPPERS INDUSTRIES, INC.

By: J. Cameron McKernan

J. Cameron McKernan, President

RECEIVED
NOV 23 1999
KOPPERS INDS, INC.
PORTLAND OR

cc: Koppers Industries, Inc.

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.

COPY

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
BUILDING NAME Not in building OCCUPANCY _____
OWNER Koppers Industries, Inc. PHONE NO. (503) 286-3681
CONTRACTOR McDowell Welding PHONE NO. (503) 241-2410
PLANS SUBMITTED 7 SPECIFICATION 7 NUMBER OF SHEETS 14
TOTAL VALUATION OF WORK (Fee Based on this figure) $ 11,395.00

TANKS: PRODUCT TO BE STORED IN TANKS: Petroleum Process Oil
TANK LOCATION: UNDERGROUND _____ ABOVEGROUND X INSIDE _____ OUTSIDE _____
TANK MATERIAL: STEEL TANK CAPACITIES : 1. 2000 gal 2. _____ 3. _____ 4. _____
PIPING:MATERIAL: STEEL SINGLE-WALL X DOUBLE-WALL _____
DISPENSING METHOD fixed FOR ADDITIONAL TANK CAPACITIES _____
LP GASES: CYL SIZE: ___ USE: VAPOR/LIQUID ___ PUMP ___ GRAVITY ___ BARRICADES: ___
COMPRESSED GASES: PRODUCT(S) _____ NO. OF CYL'S _____ SIZE _____
FOR ADDITIONAL CYLINDER CAPACITIES _____
DESCRIPTION OF WORK Expansion tank for heat trace fluid. Fluid heats coal tar pitch (molten) storage tank and pitch transfer piping. Fabricate and install tank.

2 piping

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 Koppers Industries, Inc. PHONE (503)286-3681

ADDRESS 7540 NW St. Helens Rd., Portland, OR 97210

NAME OF APPLICANT Amos Kamerer / _____
(PLEASE PRINT) SIGNATURE OF APPLICANT

FIRE PREVENTION DIVISION: FIRE MARSHAL BY: _____ INSPECTOR
300.150 (Revised 06/97)

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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.

C:my document\word\forms

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
November 22, 1999

Permits
Portland Fire & Rescue
55 SW Ash
Portland, Oregon 97204

COPY

Attention: Doug Friant

Subject: Koppers Industries, Inc./Pacific Northern Oil Pier
7540 NW St. Helens Road, Portland
Permit Application for New "Liquid Nitrogen Tank" Installation

Enclosures:
1. Application for Permit to Install Tank
2. Check for Permit Fees

Two copies each:
3. "Site Plan" Plan No. 97010-2, Rev. 4
4. "Bulk Nitrogen System P & I Diagram" Plan No. 6526-D007, Rev. 0
5. Air Liquide TM 3000 Liquid Tank Plans (2 sheets = 8½" x 11")
6. Form U-1A Manufacturer's Data Report for Unfired Pressure Vessels Dated January 8, 1968

Gentlemen:

We submit Application for Permit to install a liquid nitrogen tank and 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

RECEIVED

NOV 23 1999

KOPPERS IND.
PORTLAND

cc: Koppers Industries, Inc.

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.

COPY

NEW INSTALLATION X **ADDITION** _____ **REPAIR** _____ **ALTERATION** _____
ABANDONMENT: REMOVAL _____ **ABANDON** _____
LIQUIDS/TANKS _____ **L.P.G.** _____ **GASES** _____ **CRYOGENS** X **MED GAS** _____
JOB ADDRESS 7540 NW St. Helens Road, Portland, Oregon 97210
BUILDING NAME Not in building **OCCUPANCY** _____
OWNER Koppers Industries, Inc. **PHONE NO.** (503) 286-3681
CONTRACTOR McDowell Welding **PHONE NO.** (503) 241-2410
PLANS SUBMITTED 4 **SPECIFICATION** 1 **NUMBER OF SHEETS** 5
TOTAL VALUATION OF WORK **(Fee Based on this figure) $** 29,682.00

TANKS: PRODUCT TO BE STORED IN TANKS: Liquid Nitrogen
TANK LOCATION: UNDERGROUND _____ **ABOVEGROUND** X **INSIDE** _____ **OUTSIDE** X
TANK MATERIAL: STEEL **TANK CAPACITIES : 1.** 3000 gal **2.** _____ **3.** _____ **4.** _____
PIPING:MATERIAL: STEEL **SINGLE-WALL** X **DOUBLE-WALL** _____
DISPENSING METHOD fixed ? piping **FOR ADDITIONAL TANK CAPACITIES** _____
LP GASES: CYL SIZE: ___ **USE: VAPOR/LIQUID** ___ **PUMP** ___ **GRAVITY** ___ **BARRICADES:** ___
COMPRESSED GASES: PRODUCT(S) _____ **NO. OF CYL'S** _____ **SIZE** _____
FOR ADDITIONAL CYLINDER CAPACITIES _____
DESCRIPTION OF WORK Storage tank for liquid nitrogen. Liquid nitrogen used to "blanket" coal tar pitch (molten) storage tank. Install tank.

==========

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 Koppers Industries, Inc. **PHONE** (503)286-3681

ADDRESS 7540 NW St. Helens Rd., Portland, OR 97210

NAME OF APPLICANT Amos Kamerer _____
(PLEASE PRINT) **SIGNATURE OF APPLICANT**

FIRE PREVENTION DIVISION: FIRE MARSHAL BY: _____ **INSPECTOR**
300.150 (Revised 06/97)

C:my document\word\forms

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.

C:my document\word\forms

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
February 11, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

COPY

Attention: ENVIRONMENTAL SERVICES GROUP
(Rondi Felton)

Subject: Koppers Industries, Inc. – Liquid Pitch Unloading Facility
Northwest Natural Gas – 7540 NW St. Helens Road
New Tank and Piping

Reference: 1. Commercial Building Permit Application No. **BLD98-03757**

Enclosure: "GENERAL ARRANGEMENT PLAN" PLAN NO. 6526-G002 REV. 1

Gentlemen:

We submit four copies of the enclosed plan revised to include notes on containment and drains. This plan was revised as requested by Rondi Felton during a telephone conversation with Cameron McKernan on 1/25/99.

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.
Amos Kamerer

RECEIVED
FEB 16 1999
KOPPERS INDS, INC.
PORTLAND OR

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
February 11, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

COPY

Attention: Sheila Frugoli

Subject: Koppers Industries, Inc. – Liquid Pitch Unloading Facility
Northwest Natural Gas – 7540 NW St. Helens Road
New Tank and Piping

Reference: 1. Commercial Building Permit Application No. **BLD98-03757**
2. Zoning Checksheet dated 1/23/99

Enclosure (4 copies):

"ROADWAY & PARKING AREA ARRANGEMENT" PLAN NO. 97010-41 REV. 0

Gentlemen:

Four copies of the enclosed plan are submitted as required by the Referenced Zoning Checksheet. This plan shows the landscaping plan as requested.

The enclosed Plan has been previously approved in connection with this project under Building Permit No. BLD98-03756.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: Cameron McKernan

J. Cameron McKernan, President

Cc: Koppers Industries, Inc.
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

File No. P97-10
February 11, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

COPY

Attention: SPECIAL INSPECTION SECTION
(Douglas Morgan, P.E.)

Subject: Koppers Industries, Inc. – Liquid Pitch Unloading Facility
Northwest Natural Gas – 7540 NW St. Helens Road
New Tank and Piping

Reference: 1. Commercial Building Permit Application No. **BLD98-03757**
2. Site Development Plan Examination Sheet, Review Date February 2, 1999

Enclosure: SOILS SPECIAL INSPECTIONS FORM

Gentlemen:

We submit the completed Soils Special Inspection Form as required by the Referenced Site Development Plan Examination Sheet.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: Cameron McKernan

J. Cameron McKernan, President

cc: Koppers Industries, Inc.
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

File No. P97-10
September 10, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

Attention: Special Inspection Section

COPY

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

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

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

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

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.

C:my document\word\forms

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)

7

Author: AMOS KAMERER at PITT
Date: 6/25/99 9:35 AM
Priority: Normal
TO: John Kunkle at PITT
CC: BILL MEISINGER at TECHCTR
Subject: Permit fee for Fire Dept. tank review

---------- Message Contents ----------

John,

Please issue a check and overnight today, as follows:

City of Portland Treasure
1120 SW 5th Ave.
Portland, Or. 97204
vender # 966401027
$14,577.77

Send to: J. Cameron McKernan Company
825 NE 20th Ave., Suite 110
Portland, Or. 97232

Thanks,

Amos

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
June 9, 1999

Permits
Portland Fire & Rescue
55 SW Ash
Portland, Oregon 97204

COPY

Subject: Koppers Industries, Inc./Pacific Northern Oil Pier
7540 NW St. Helens Road, Portland
Permit Application for New Standpipe Installation

Enclosures:

- Application for Permit to Install Sprinkler System
- Check for Permit Fees
- Plans:

  Plan No. 97010-21, Rev. 4, "Site Plan"
  Plan No. 97010-22, Rev. -, "Fire & Safety Plan"
  Plan No. 97010-22A, Rev. -, "Fire Mains & Hydrants (existing)"

Gentlemen:

We submit Application for Permit to install new standpipe and the required plans and fees.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
AGENT FOR KOPPERS INDUSTRIES, INC.

By: J. Cameron McKernan

J. Cameron McKernan, President

cc: Koppers Industries, Inc.

RECEIVED
JUN 11 1999
KOPPERS INDS, INC.
PORTLAND OR

APPLICATION FOR PERMIT TO INSTALL SPRINKLER SYSTEM
Fire Prevention, City of Portland, Oregon / 823-3700

For PFB Use Only
Permit Number

State of Oregon 5% Surcharge $_____

Portland Fire Bureau Fee $_____ Code: _____

TOTAL COST OF THIS PERMIT $_____ Date: _____

PLANS MUST BE SUBMITTED TO THE FIRE PREVENTION DIVISION AND APPROVED BEFORE INSTALLATION. PLOT PLAN SHOWING LOCATION OF NEAREST HYDRANT IS REQUIRED.

_____ NEW BUILDING _____ EXISTING BUILDING

X NEW INSTALLATION __ ADDITION __ REPAIR __ ALTERATION __ REMOVE

___ SPRINKLER	___ STANDPIPE	___ FIRE LINE/PRIVATE HYDRANTS
__ COMPLETE	__ WET	__ SPRINKLER/STANDPIPE SYSTEM SUPPLY ONLY
__ EXITWAY	X DRY	
__ BASEMENT	__ COMBINATION	__ SPRINKLER/STANDPIPE SUPPLY WITH HYDRANT(S)
__ HOOD & VENT		
__ SPRAY BOOTH		__ HYDRANT(S) SUPPLY ONLY

NAME OF BUILDING OR BUSINESS Koppers Industries/Pacific Northern Oil Pier

ADDRESS 7540 NW St. Helens Road

TOTAL VALUATION OF WORK TO BE PERFORMED $ 6,000.00

TOTAL SQUARE FEET OF AREA WHERE WORK IS BEING PERFORMED _____

NUMBER OF STORIES _____ SIZE OF BLDG. _____ OCCUPIED AS _____

TYPE OF SPRINKLER SYSTEM: WET __ DRY __ PREACTION __ DELUGE __

NUMBER OF SYSTEMS _____ NUMBER OF HEADS _____ NUMBER OF STANDPIPES _____

OCCUPANCY HAZARD: LIGHT ____ ORD. GROUP HAZARD: 1 ____ 2 ____ EXTRA 1 ____ 2 ____

DENSITY ____ GPM/SQ. FT. DESIGN AREA _____ SQ FT SPRINKLER AREA _____ SQ FT

SPRINKLER ORIFICE SIZE _____ "K" FACTOR _____ TEMPERATURE RATING _____

OWNER Koppers Industries ADDRESS 7540 NW St. Helens Road, Portland, OR 97210

PLANS DRAWN BY J. Cameron McKernan Company PHONE 232-7211

REMARKS: For new "dry" standpipe over new bridge from shore to existing pier.

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 INSTALLING COMPANY Diversified Marine, Inc. PHONE 289-2669

ADDRESS P. O. Box 83723, Portland, Oregon 97283

NAME OF APPLICANT Cameron McKernan / J. Cameron McKernan
(PLEASE PRINT) SIGNATURE OF APPLICANT

FIRE PREVENTION DIVISION: FIRE MARSHAL

BY:_____ INSPECTOR __/__/__ DATE

300.24 (Revised 8/94)

1) Multiply Square Feet of sprinkler work times 1.33.

_____sq. ft. X 1.33 = _____ (valuation)

2) Compare the valuation from step 1) with your contract valuation. Use the greater of the two to determine the Permit Fee.

3) PERMIT FEE CALCULATION (refer to Table 40-D)

$ 77.81 (Base fee for first $2,000 of valuation)

+ 53.16 ($13.29 per 1,000 beyond base fee)

= 130.97 (Subtotal A)

X _____ 1.65 (Plan Review charge. IF permit is to be doubled, use 2.65 as multiplier)

= 216.10 (Subtotal B)

+ 2.00 (Add microfilm charges) (3 documents)

+ 6.55 5% Surcharge fee due State Building Codes Agency (Subtotal A x 5%)

= 224.65 TOTAL DUE FOR THIS PERMIT

EXAMPLE

1) Multiply Square Feet of sprinkler work times 1.33.

2,500 sq. ft. X 1.33 = $3,325.00 (valuation)

2) Compare the valuation from step 1) with your contract valuation. Use the greater of the two to determine the Permit Fee. (Contract value $2,825 vs.$3,325 = Therefore, use the $3,325 amount.)

3) PERMIT FEE CALCULATION (refer to Table 40-D)

$ 77.81 (Base fee for first $2,000 of valuation)

3,325
+ 26.58 ($ 13.29 per 1,000 beyond base fee) -2,000
1,325 = 2 units

= 104.38 (Subtotal A)

X _____ 1.65 (Plan Review charge. IF permit is to be doubled, use 2.65 as multiplier)

= 172.22 (Subtotal B)

+ 1.00 (Add microfilm charges)

+ 5.21 5% Surcharge fee due State Building Codes Agency (Subtotal A x 5%)

= 178.43 TOTAL DUE FOR THIS PERMIT

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
May 27, 1999

City of Portland Permit Center
P. O. Box 8120
Portland, Oregon 97207-8120

Subject: Koppers Industries, Inc., 7540 NW St. Helens Road
Electrical Permit Application

COPY

Enclosures:

1. Electrical Permit Application by Contractor: Chandler Electric Inc.
2. Check from Koppers Industries in the amount of $1,181.70
3. PLANS (3 copies)

   McKernan Plan No. 97010-1 "Site Plan"

   Chem Tech Drawings:

   No. 6526-G001 "Index of Drawings"
   No. 6526-G002 "General Arrangement Drawing"
   No. 6526- "D" Process Flow Diagram - 9 sheets
   (listed on Index of Drawings)
   No. 6526- "E" Electrical Drawings - 9 sheets
   (listed on Index of Drawings)
   No. 6526- "I" Instrumentation Drawings - 24 sheets
   (listed on Index of Drawings)

Gentlemen:

We submit Electrical Permit Application and the required plans and 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.

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

May 17, 1999

INVOICE

NO: PI99-32

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

COPY

Attention: Wm. Meisinger

Reference: Purchase Order # 300-8-13016

DESCRIPTION	AMOUNT

ENGINEERING SERVICES (Portland Pitch Ship Terminal)
(INTERIM INVOICE for the period from 4/1/99 through 4/30/99)
(McKernan File No. P97-10)

Continuing service to do engineering tasks and prepare construction plans as required by the referenced Purchase Order. Work performed in connection with modification of pier and piping installation from ship to new storage tank. Charges are for the period from 4/1/99 through 4/30/99. Services are listed on the following pages.

CHARGES:

Labor (Summary & Activity Logs attached):

Principal Engineer:	
34½ man-hours @ $79.00 per man-hour	$2,725.50
Senior Engineers:	
72½ man-hours @ $52.50 per man-hour	3,806.25
Senior Drafters:	
1 man-hours @ $40.00 per man-hour	40.00
TOTAL AMOUNT DUE (108 man-hours)	$6,571.75

TERMS: Net cash

Cont'd . . .

RECEIVED

MAY 19 1999

KOPPERS INDS, INC.
PORTLAND OR

Koppers Industries, Inc. (Attention: WM. Meisinger) May 17, 1999
Portland Pitch Ship Terminal - Purchase Order # 300-8-13016
McKernan Engineering Service Invoice No: PI99-32

DESCRIPTION AMOUNT

COPY

SERVICES:

1. Responded to the City of Portland's Building Permit Plan Review SECOND CHECK SHEET dated 4-2-99 as follows:

   - Had telephone conversations with City of Portland plan reviewers, Koppers, KPFF, & Morse Tank to coordinate resolving items in the check sheet.
   - Wrote letter to summarize actions responding to the check sheet. Letter was submitted by FAX and by mail on April 14, 1999.
   - Worked with Pacific Technical (testing company) to get them certified with the City of Portland.
   - Prepared and submitted the following new drawings:
     Plan No. 97010-69A, Rev. 0, Road Crossover Bridge Footing
     Plan No. 97010-70A, Rev. 0, Doorway Crossover Bridge Footing
   - Revised and submitted the following drawings:
     Plan No. 97010-21, Rev. 4 SITE PLAN
     Plan No. 97010-43, Rev. 1 SHIP TRANSFER PIPE SEGMENT 01
     Plan No. 97010-69, Rev. 2 ROAD CROSSOVER BRIDGE
     Plan No. 97010-70, Rev. 2 DOORWAY CROSSOVER BRIDGE
   - Reviewed the applicable Morse Tank drawings, "stamped" them reviewed by McKernan, and submitted them.
   - Visited the City of Portland and marked the miscellaneous steel drawing as not reviewed and not part of this permit.
   - Submitted the following drawings revised by KPFF:
     Plan No. 98567-S10, Rev. 3 STRUCTURAL FOUNDATIONS
     Plan No. 98567-S11, Rev. 3 STRUCTURAL DETAILS

2. Visited the City of Portland on 4/23/99. Picked up the Building Permit and approved plans, specifications and calculations. Delivered all to Koppers.

3. Reviewed many Requests for Information by McDowell Welding. Worked with McDowell Welding and Koppers to resolve them by telephone, FAX and in person.

4. Visited the site several times to check general progress of the pier and piping work.

5. Worked up specification for the ship unloading hose required. Started contacting hose vendors and searching for a suitable hose.

END

Koppers Industries, Inc. (Attention: WM. Meisinger) May 17, 1999
Portland Pitch Ship Terminal - Purchase Order # 300-8-13016
McKernan Engineering Service Invoice No: PI99-32

LABOR SUMMARY:

Period ending:	4/15	4/30	TOTAL	
Principal Engineer:				
McKernan	29½	5	34½	
Senior Engineers:				
Parham	13	42	55	72½
Jeffries	17½	0	17½	
Senior Drafter:				
Kincaid	1	0	1	
			108 man-hours	

COPY

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING APRIL 15, 1999

JOB NO: P97-10 NAME KOPPER'S PITCH SHIP TERMINAL (1 OF 3)

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-1	½	Went through the files searching for information of things we transmitted or discussed with gas company personnel regarding the excavations. Found the Procedure of May '97 and had Mary FAX it over to Amos and later talked to Amos. Discussed what I had found in my files and he had pretty much the same things I have. The conclusion was we felt we had notified the gas company of what we were going to do and had never modified that.
4-2	½	Discussed with Jerome his findings on the hoses and trips out to the various piers to look at different hose installations with one of the hose vendors.
	3	Telephone conversation with Amit Kumar at the City of Portland discussing his additional comments on the plans. Telephone conversation with Sam Moss over at KPFF. Instructed Ben Jeffries on adding some more details to the concrete reinforcing on the pipe cross over bridges.
4-3	3	Reviewed the City of Portland SECOND CHECK SHEET. Wrote letter to inform Koppers of status and actions to be taken on the City of Portland SECOND CHECK SHEET. Wrote letter to Pacific Technical Industries instructing them to contact the City of Portland to get certified by the city for special inspections. Instructed Mary to FAX these letters on Monday. Reviewed/Instructed Mary-Anne on various tasks to be completed on the Koppers project during my few days' absence next week such as getting a stamp made, getting some revised blue prints to the City of Portland and to Koppers, and putting stickers on plans at the City stating not reviewed for permit.
4-8	2	Reviewed the accumulation of Requests for Information from MacDowell Welding. Had Mary make another copy of them. Telephoned Pacific Technical that is doing the X-Rays for the tank construction as a follow up on our request for them to send their information to the City of Portland. Talked to Doug Nalley. He said they had not sent anything yet and that they would do it on Friday, tomorrow. Had a brief telephone conversation with Amos Kamerer updating him regarding the actions on the City of Portland plan review sheet number 2. Also reviewed the concrete mix review that Sam Moss did. Reviewed Ben Jeffries' drawings on the rebar details for the pipe cross over bridge foundations and made a few suggestions for him to change.
4-9	1½	Telephone conversations with Doug Nalley at Pacific Industrial, the X-Ray people, concerning his getting data to the City of Portland. Later another conversation with him about not being able to get it out to the City today because he is going to have to get some more information from Ray Maw, the tank fabricator. Had Mary send him a FAX of the Morse Testing Program Check Off List. Telephone conversation with Amos Kamerer to update him on the actions on the City of Portland Plan Check No. 2 and to get an update on construction progress. Particularly the soils contamination issue that came up last week with the gas company.
	1	Reviewed Ben's plan on the footing for the cross over bridges. Had him make a few minor corrections. Had him print it and I stamped it. Marked up the Site Plan's Plan List to indicate the current revisions. Had Mike revise it and plot it and I stamped it. Instructed Mary on running the prints and getting the plans ready to insert in the City of Portland bundle.
	1	Went over to the site and drove around, took pictures, and dictated notes. Generally to observe the progress of the contractor and to see the completion of the walkways and bridge.

CONT'D . . .

SIGNED [signature] DATE [illegible]

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING APRIL 15, 1999

JOB NO: P97-10 NAME KOPPER'S PITCH SHIP TERMINAL (2 OF 3)

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-11	3½	Checked the structure on the miscellaneous steel on the Morse Tank plans. Did a pretty thorough check on one of the inclined stairways including calculating the weight. Worked through all the loads and calculated the bending stress in the stringers. Found generally everything satisfactory. Went and did a less thorough analysis of the landing platforms and particularly the top platform. Made a list of questions I want to ask Morse Tank.
4-12	2½	Went over to McDowell Welding and did a review of the structural sections they had completed. They had some of the guide plates for the pipe supports finished. They had some of the pipe supports in the tank area finished. They have not done any of the actual pipe support, that is the T Frames, some of them were cut out but not finished and the clamps weren't welded to them. Everything was okay and in fact it looked good. I cautioned them to break the corners on the inside of the guide plates so the T bar won't hang up on them. From there I went over to Koppers with Gray Johnson and Amos and we went through the outstanding requests for information and resolved all of them. I hand wrote the answers on each one and I later intend to send copies to McDowell Welding.
	1	Instructed Jerome on revising the Segment 1 pipe drawing to show the pipe supports on the side of the tank or to make that a detail. Later when he finished that I went back and reviewed the plan and compared all the references on that plan to make sure they were still valid. Found some discrepancies and marked up the plan and had Jerome make another revision.
	½	Telephone conversation with Ray Maw. Reviewed my comments on the miscellaneous steel parts of the tank structure.
4-13	4	Stamped the Morse Construction Group drawings for the tank. Marked them up with my comments. Finished the checking of the structure and particularly looked up the call outs on the Morse drawings for the gratings and the ladder treads to make sure they were adequate for the loads. Telephone conversation with Ray Nalley at the testing company. Told him we received the documents and confirmed he had sent a separate package to the City. Instructed Jerome to revise the plan list on our sheet 1 and checked his revision of the Segment 1 piping that showed the stools on the tank. Made a XEROX of his completed area and sent it by FAX to Ray Maw at Morse Tank. Also sent to Ray Maw a copy of my mark up of the drawing that shows the support for the upper platforms. Also discussed with him by telephone the question regarding the stair treads to make sure they are not grating but truly stair treads. Started the draft of the letter in response to the City of Portland 2nd plan review sheet.
4-14	3	Completed the draft of the letter for the second plan check to the City of Portland. Reviewed a couple of drafts and had Mary FAX it and mail it to the City of Portland. Telephone conversation with Tom Howell at Harder Mechanical requesting some more plans or making sure I got them over to him. Telephone conversation with Gray Johnson at McDowell. He wants to do some intermittent welding on the combination beam on the bridges going across the garage door in the roadways. Telephone conversation with Amos Kamerer about some problems in the plant. An interference with concrete containment with some existing concrete where their tank car loading facility is and some changes for the existing tower where the trailer cover hoist is. Told Amos we didn't need to put anymore concrete in that tower base structure there is plenty of concrete. Had Mary get some plan packages together for McDowell Welding and for Harder Mechanical. Checked those plan packages when she got them finished.

CONT'D . . .

SIGNED J. Cameron McKernan DATE 4/19/99

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING APRIL 15, 1999

JOB NO: P97-10 NAME KOPPER'S PITCH SHIP TERMINAL (3 OF 3)

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-15	1	Kind of cleaned up the desk top and the files and looked at the drawings we have to give to Harder and McDowell. Ran some more prints of the revision notice on the foundations in the tank area.
	1½	Went over to Koppers and met with Jimmy on the pier. Took some measurements of the pilings, particularly the wood piling, to get the distance down to the mud line. Watched him put that last pipe clamp on that was missing on the fire stand pipe. While I was there I met with Gray Johnson. Gave him the set of plans that I was to deliver to him. Went over to Harder Mechanical and delivered the set of plans for Tom Howell and picked up some details that he left for me.

SIGNED [signature] DATE 4-19-99

ACTIVITY LOG

NAME JEROME PARHAM PERIOD ENDING 15 APRIL 1999

JOB NO: 97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-2	4	MET WITH Bob BAUER AT PETERSONS & WENT TO TEXACO, GATX & KOPPERS TO LOOK AT HOSE INSTALLATIONS
4-6	1	WENT TO KOPPERS TO MEASURE LOCATION OF UNDERGROUND PIPE IN WAY OF SEGMENT 05 BRIDGE
4-8	1	CALL MORE HOSE VENDORS FOR INFO & GET FAX FROM Bob BAUER
4-12	4	REVISE SEGMENT 01 ADD VALUE 234 & ADD STOOL DETAIL
4-13	3	CORRECT STOOL DETAILS ON SEG 01 PLOT ON VELLUM. REVISE & PLOT -21 SITE PLAN

SIGNED Jerome O. Parham DATE 4-15-99

13 mh

ACTIVITY LOG

NAME BEN JEFFRIES PERIOD ENDING 4-15-99

JOB NO: P97-10 NAME HOPPERS

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-2	2½	STARTED 97010-69A, BRIDGE FOOTING
4-4	5	97010 @ HOME
4-5	2	CONTINUED ON 97010 @ HOME
4-8	5½	" " " @ WORK & HOME
4-9	2½	PLOTTED, COMPARED W/ EXAM, MADE CHANGES, REPLOTTED

SIGNED Ben Jeffries DATE

17½ hrs

ACTIVITY LOG

NAME J. CAMERON MCKERNAN PERIOD ENDING APRIL 30, 1999

JOB NO: P97-10 NAME KOPPER'S PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-16	1	Telephone conversation with Amit Kumar at the City of Portland Plan Review Section. He said he signed off and he was the last one to sign off so the permit should be ready to issue. Had a couple telephone conversations with Amos Kamerer regarding the permit, a visit by Russ Sill of the Fire Bureau and about Jerome's searching for a hose. Briefly reviewed with Jerome about how he is going about finding vendors for the hose.
4-26	1½	Went over to McDowell Welding and did a shop check of the pitch building cross over bridge for the pipe. Couple of telephone conversations with Amos about some footing problems and the drawings from Harder Mechanical.
4-29	1½	Met with Amos and did a walk around the construction project. Answered some questions that Bill the Harder foreman had about locations of the concrete.
	1	Discussions with Jerome Bob Bauer, a hose vendor, about the metal hose for the unloading of the pitch. Asked him to send us some samples of the hose. Jerome went over to his shop and got the hose samples.

SIGNED JCMK DATE 5/4/99

ACTIVITY LOG

NAME JEROME PARHAM PERIOD ENDING 30 APRIL 1999

JOB NO: 97-10 NAME KOPPERS PITCH SHIP TERMINAL

DATE	HOURS	DESCRIPTION OF ACTIVITY
4-16	3	WENT TO KOPPERS TO SEE TJ - NOT THERE. MADE QUICK CHECK OF SITE
4-19	8	WENT ONLINE & SENT MULTIPLE REQUESTS FOR HOSE INFO & MADE PHONE CALLS TO MORE VENDORS. SEARCH WEB FOR MORE HOSE SUPPLIERS.
4-20	1	CALL HOSE VENDORS OUT OF STATE FOR INFO
4-22	7	CHECKED HOSE WEB SITES & SENT MORE e-mail / REQUESTS TO VARIOUS COMPANIES. Rec'd 1 ANSWER TALKED TO AEROQUIP
4-26	5	CONTACTED JIM MARTIN. AT DELAFIELD & SENT HIM FAX CHECKED WEB FOR DATA.
4-27	2	TALKED TO PETERSONS ON HOSE DESIGN. CHECKED WEB & e-mail
4-28	7	GOT FAX FROM PETERSONS ON NEW CONSTRUCTION/CONCERNS CHECKED WITH 8-10 VENDORS BY PHONE & GOT MORE INFO & REFS. CHECKED WEB FOR e-mail addresses & BUSINESSES FOR TAR TECH sent email to KOPPERS - AUSTRALIA
4-29	5	CALLED BACK VENDORS FOR FOLLOW-UP. WENT TO PETERSONS FOR HOSE SAMPLES. DISCUSS HOSE W/CAM & BOB BAUER
4-30	4	CHECK emails & telephone vendors for follow-up - NOT HELPFUL WENT TO DIVERSIFIED TO GET HOSE SAMPLES CUT

SIGNED Jerome J. Parham DATE 4-30-99

42 mfn

CITY OF

PORTLAND, OREGON

BUREAU OF BUILDINGS

1120 S.W. 5th Avenue
Portland, Oregon 97204-1992
Mailing Address: P.O. Box 8120
Portland, Oregon 97207-8120
(503) 823-7300
FAX: (503) 823-6983
TDD: (503) 823-6868

PSI
12812 NE Marx
Portland OR 97230

May 10, 1999

We have been notified that the owner will retain your services to perform Special Inspections in accordance with the provisions of the Portland Building Code, permit documents and Special Inspection program Administrative Rules. The owner or the owner's agent must also confirm with you that they have authorized you to do the special inspection work. **Special Inspections are in addition to the inspections required to be performed by the Bureau of Buildings.**

As the regulatory agency, the City requires that you do the following:

1. Submit copies of all inspection reports promptly to the Bureau of Buildings *Special Inspections Section*, architect, engineer, owner and the contractor.
2. Maintain one copy of each field report at the job site.
3. Submit a final report at the completion of each category of work that you inspect.

If you fail to comply with the above requirements there may be cause for the City to revoke your authority as special inspector for this job. Should you have any questions feel free to contact me at 823-7386.

PERMIT NO: BLD98-03757
OWNER: Northwest Natural Gas Co
PROJECT ADDRESS: 7540 W St Helens Rd
PROJECT DESCRIPTION: New Tank and Piping for Coal Tar Pitch
TYPES OF SPECIAL INSPECTION: 1) Reinforced concrete; verification of mix design for 5000 and 6200 psi concrete is required by Sheet 98567-509 and attached inspection program; 2) Expansion, wedge or epoxy anchors per ICBO research report; 3) Structural steel; includes material verification, weld procedures, welder qualification, shop and field welding and installation of high strength bolts; and special welding inspection procedures as outlined in attached inspection program

Sincerely,

Jay Ponce
Special Inspection Coordinator

JP:dr

cc: Northwest Natural Gas Co
J Cameron McKernan Co
GeoEngineers
Don Fairbanks, Building Inspector
KPFF
Koppers Industries Inc
Pacific Technical Industries Inc

RECEIVED

MAY 1 3 1999

KOPPERS INDS, INC
PORTLAND OR

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS

1120 S.W. 5th Avenue
Portland, Oregon 97204-1992
Mailing Address: P.O. Box 8120
Portland, Oregon 97207-8120
(503) 823-7300
FAX: (503) 823-6983
TDD: (503) 823-6868

May 10, 1999

KPFF Consulting Engineers
111 SW Fifth Ave #2500
Portland OR 97204-3628

RE: 7540 NW St Helens Rd, Permit No. BLD98-03757
New Tank and piping for Coal Tar Pitch

To whom it may concern:

You are hereby notified that the owner will retain your services to perform structural observation of all significant construction stages including phases outlined in inspection and observation program attached and at the completion of the project in accordance with the provisions of State Building Code Section 1702 and the City's Administrative Rules.

Please submit a copy of all observation reports to the architect, contractor, special inspector (when special inspections are required) and the City's Special Inspection Section. Submit a final summary report to the Special Inspection Section at the completion of the work, as required by the State Building Code Section 1702. Observation reports must provide the project address and permit number.

Confirmation of the authority to perform the observation should be obtained from the owner.

Should you have any further questions feel to contact me at 823-7277.

Sincerely,

Jay Ponce
Special Inspection Coordinator

JP:dr

cc: Northwest Natural Gas Co
KPFF
J Camercon McKernan Co
Koppers Industries Inc
GeoEngineers
Pacific Technical Industries Inc
Don Fairbanks, Building Inspector

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS

1120 S.W. 5th Avenue
Portland, Oregon 97204-1992
Mailing Address: P.O. Box 8120
Portland, Oregon 97207-8120
(503) 823-7300
FAX: (503) 823-6983
TDD: (503) 823-6868

May 10, 1999

Pacific Technical Industries Inc
1414 127th Pl NE, #107
Bellevue WA 98005

We have been notified that the owner will retain your services to perform Special Inspections in accordance with the provisions of the Portland Building Code, permit documents and Special Inspection program Administrative Rules. The owner or the owner's agent must also confirm with you that they have authorized you to do the special inspection work. **Special Inspections are in addition to the inspections required to be performed by the Bureau of Buildings.**

As the regulatory agency, the City requires that you do the following:

1. Submit copies of all inspection reports promptly to the Bureau of Buildings *Special Inspections Section*, architect, engineer, owner and the contractor.
2. Maintain one copy of each field report at the job site.
3. Submit a final report at the completion of each category of work that you inspect.

If you fail to comply with the above requirements there may be cause for the City to revoke your authority as special inspector for this job. Should you have any questions feel free to contact me at 823-7386.

PERMIT NO:	BLD98-03757
OWNER:	Northwest Natural Gas Co
PROJECT ADDRESS:	7540 NW St Helens Rd
PROJECT DESCRIPTION:	New Tank and Piping for Coal Tar Pitch
TYPES OF SPECIAL INSPECTION:	1) X-ray of tank welds in accordance with API 650 2) As required by attached inspection program

Sincerely,

Jay Ponce
Special Inspection Coordinator

JP:dr

cc: Northwest Natural Gas Co
KPFF
J Cameron McKernan Co
Koppers Industries Inc
GeoEngineers
PSI
Don Fairbanks, Building Inspector

CITY OF

PORTLAND, OREGON

BUREAU OF BUILDINGS

1120 S.W. 5th Avenue
Portland, Oregon 97204-1992
Mailing Address: P.O. Box 8120
Portland, Oregon 97207-8120
(503) 823-7300
FAX: (503) 823-6983
TDD: (503) 823-6868

May 10, 1999

GeoEngineers
7504 SW Bridgeport Rd
Portland OR 97224

We have been notified that the owner will retain your services to perform Special Inspections in accordance with the provisions of the Portland Building Code, permit documents and Special Inspection program Administrative Rules. The owner or the owner's agent must also confirm with you that they have authorized you to do the special inspection work. **Special Inspections are in addition to the inspections required to be performed by the Bureau of Buildings.**

As the regulatory agency, the City requires that you do the following:

1. Submit copies of all inspection reports promptly to the Bureau of Buildings *Special Inspections Section*, architect, engineer, owner and the contractor.
2. Maintain one copy of each field report at the job site.
3. Submit a final report at the completion of each category of work that you inspect.

If you fail to comply with the above requirements there may be cause for the City to revoke your authority as special inspector for this job. Should you have any questions feel free to contact me at 823-7386.

PERMIT NO:	BLD98-03757
OWNER:	Northwest Natural Gas Co
PROJECT ADDRESS:	7540 NW St Helens Rd
PROJECT DESCRIPTION:	New Tank and Piping for Coal Tar Pitch

TYPES OF SPECIAL INSPECTION:

1) Grading fill and backfill placement and compaction; 2) Foundation subgrade preparation; 3) Pile installation

Sincerely,

Jay Ponce
Special Inspection Coordinator

JP:dr

cc: KPFF
J Cameron McKernan Co
Northwest Natural Gas Co
PSI
McDowell Welding
Koppers Industries Inc
Pacific Technical Industries Inc
Don Fairbanks, Building Inspector

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

Harder Mechanical Contractors, Inc.
2148 NE Martin Luther King Jr. Blvd.
Portland, Oregon 97212

File No. P97-10
April 14, 1999

Attention: Tom Howell

Subject: Koppers Industries, Inc. - Pitch Ship Terminal

Enclosures:

COPY

REVISION NOTICE: Change to Plan No. 6526-S002 Rev. 0

PLAN NO.	REV.	TITLE
97010-21	4	SITE PLAN
97010-43	1	SHIP TRANSFER PIPE SEGMENT 01
97010-69	2	ROAD CROSSOVER BRIDGE
97010-69A	0	ROAD CROSSOVER BRIDGE FOOTING
97010-70	2	DOORWAY CROSSOVER BRIDGE
97010-70A	0	DOORWAY CROSSOVER BRIDGE FOOTING
98567-S10	3	STRUCTURAL FOUNDATIONS
98567-S11	3	STRUCTURAL DETAILS
6526-G001	1	DRAWING INDEX
6526-E006	1	GROUNDING PLAN
6526-E007	0	GROUNDING DETAILS

Gentlemen:

We send three copies of revised plans to update your plan packages.

The grounding Plan & Grounding Details are also sent. Your job superintendent requested these.

Very truly yours,

J. CAMERON MCKERNAN COMPANY

By: Cameron McKernan
J. Cameron McKernan, President

RECEIVED
APR 15 1999
KOPPERS INDS, INC.
PORTLAND OR

cc: Koppers Industries, Inc.
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

File No. P97-10
April 14, 1999

McDowell Welding & Pipefitting
4000 NW St. Helens Road
Portland, Oregon 97210

Attention: Gray Johnson

Subject: Koppers Industries, Inc.
Pitch Pipe Support

COPY

Enclosures:

PLAN NO.	REV.	TITLE
97010-21	4	SITE PLAN
97010-43	1	SHIP TRANSFER PIPE SEGMENT 01
97010-69	2	ROAD CROSSOVER BRIDGE
97010-69A	0	ROAD CROSSOVER BRIDGE FOOTING
97010-70	2	DOORWAY CROSSOVER BRIDGE
97010-70A	0	DOORWAY CROSSOVER BRIDGE FOOTING
98567-S09	2	STRUCTURAL FOUNDATION PLAN
98567-S10	3	STRUCTURAL FOUNDATIONS
98567-S11	3	STRUCTURAL DETAILS
98567-S12	2	STRUCTURAL DETAILS
6526-G001	1	DRAWING INDEX

Gentlemen:

We send three copies of revised plans to update your plan packages.

Very truly yours,

J. CAMERON MCKERNAN COMPANY

By: J. Cameron McKernan

J. Cameron McKernan, President

RECEIVED
APR 15 1999
KOPPERS INDS, INC.
PORTLAND OR

cc: Koppers Industries, Inc.
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

FACSIMILE TRANSMITTAL FORM

COPY

FILE NO: P97-10

DATE: 4-14-99

TRANSMIT TO: Amit Kumar, Structural Plan Examiner

City of Portland Bureau of Buildings

FAX NUMBER: 823-7692

NUMBER OF PAGES TRANSMITTED INCLUDING THIS COVER SHEET: 4

PROJECT NAME: **APPLICATION BLD#98-03757**

TRANSMITTING:

Letter responding to Structural Plan Examination Sheet "SECOND CHECK SHEET" sent 4-2-99. Original letter will follow in the mail.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
AGENT FOR KOPPERS INDUSTRIES, INC.

By: Cameron McKernan

J. Cameron McKernan, President

cc: 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

File No. P97-10
April 14, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

Attention: Amit Kumar, Structural Plan Examiner

Subject: Application #BLD98-03757
Structural Plan Examination Sheet
SECOND CHECK SHEET Sent 4-2-99

COPY

Enclosures: As indicated on the attached list.

Gentlemen:

In response to your SECOND CHECK SHEET, we summarize our actions (Item Nos. correspond to your Item Nos.):

1a. No action required. We concur with your addition to verify the concrete mix design.

1b. Pacific Technical Industries has sent information requested by Tony Re directly to Tony Re. This information was sent by UPS Next Day Air on April 12, 1999. Tony Re verified by telephone on April 14, 1999 he has received the information.

2. The following additional drawings showing the rebar lay out have been prepared and submitted:

Plan No. 97010-69A, Rev. 0, Road Crossover Bridge Footing
Plan No. 97010-70A, Rev. 0, Doorway Crossover Bridge Footing

3. The applicable Morse Tank Drawings showing miscellaneous items have been reviewed by McKernan and stamped "Reviewed" by McKernan. These drawings are Morse Sheet Nos: 14, 15, 16, 17, 18, 19, 20, 26, 46, 47, 48, 49, & 50.

6. The miscellaneous steel drawings have been marked as suggested. The work shown on these drawings is not part of this permit. When the detail drawings are available, we will apply for a supplemental permit and submit the detail plans.

Cont'd . . .

Koppers019265

City of Portland, Oregon
Bureau of Buildings (Attention: Amit Kumar)
Application #BLD98-03757
Structural Plan Examination SECOND CHECK SHEET

File No. P97-10
April 14, 1999

9. Plan No. 98567-S11, Rev. 3 shows revised (increased) spacing of re-bar in the interior pile cap area and the re-bar increased in size to compensate for this increased spacing. We believe this solves the interference problem.

10. Plan No. 98567-S10, Rev. 3 shows the revised outside radius of the reinforced concrete ring wall. This change increases the edge distance to 12½."

All the Listed enclosed plans have been delivered to the City of Portland Building's Document Control Room and inserted in the plan packages. The preceding revisions have been removed.

COPY

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: Cameron McKernan

J. Cameron McKernan, President

cc: KPFF
Sam Moss - w/List of Enclosures
Koppers Industries, Inc.
Amos Kamerer - w/List of Enclosures and all enclosures
William Meisinger - w/List of Enclosures and all enclosures

McKernan letter to City of Portland
Structural Plan Review SECOND CHECK SHEET
Application #BLD98-03757

File No. P97-10
April 14, 1999

List of Enclosures (4 copies each):

1. New Plans (these new plans have been delivered to the City of Portland Building's Document Control Room and inserted in the plan packages):

COPY

PLAN NO.	REV.	TITLE
97010-69A	0	ROAD CROSSOVER BRIDGE FOOTING
97010-70A	0	DOORWAY CROSSOVER BRIDGE FOOTING

2. Drawing Revisions (these revised plans have been delivered to the City of Portland Building's Document Control Room and inserted in the plan packages. The preceding revisions have been removed).

PLAN NO.	REV.	TITLE
97010-21	4	SITE PLAN
97010-43	1	SHIP TRANSFER PIPE SEGMENT 01
97010-69	2	ROAD CROSSOVER BRIDGE
97010-70	2	DOORWAY CROSSOVER BRIDGE
98567-S10	3	STRUCTURAL FOUNDATIONS
98567-S11	3	STRUCTURAL DETAILS

3. Drawings by Morse Construction Group, Inc stamped "Reviewed" by McKernan (these stamped plans have been delivered to the City of Portland Building's Document Control Room and inserted in the plan packages. The preceding sheets before stamping by McKernan have been removed).

   Morse No. 2380-P0-6158 Sheet Nos: 14, 15, 16, 17, 18, 19, 20, 26, 46, 47, 48, 49, & 50

RECEIVED

APR 1 5 1999

KOPPERS INDS, INC
PORTLAND OR

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, 1999

McDowell Welding & Pipefitting
4000 NW St. Helens Road
Portland, Oregon 97210

Attention: Gray Johnson

COPY

Subject: Koppers Industries, Inc.
Pitch Pipe Support

Enclosures:

Plan No.	Rev.	Title
92070-020	0	Pipe Support Foundation Details
92070-015	0	Pipe Support Plate G Details
92070-00-016	0	Pipe Bollard/Pipe Support Pile

Gentlemen:

We send the enclosed stamped "Approved for Construction" plans.

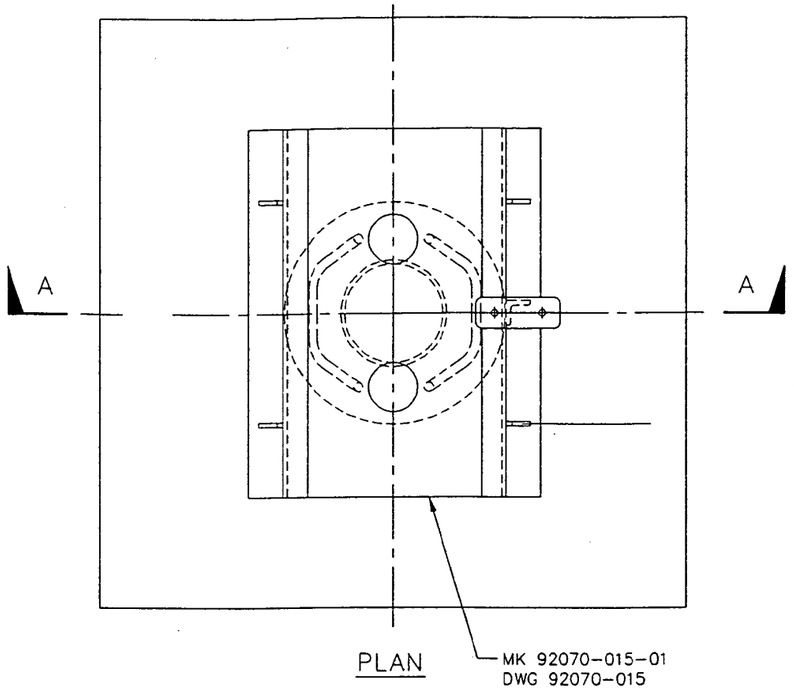
Very truly yours,

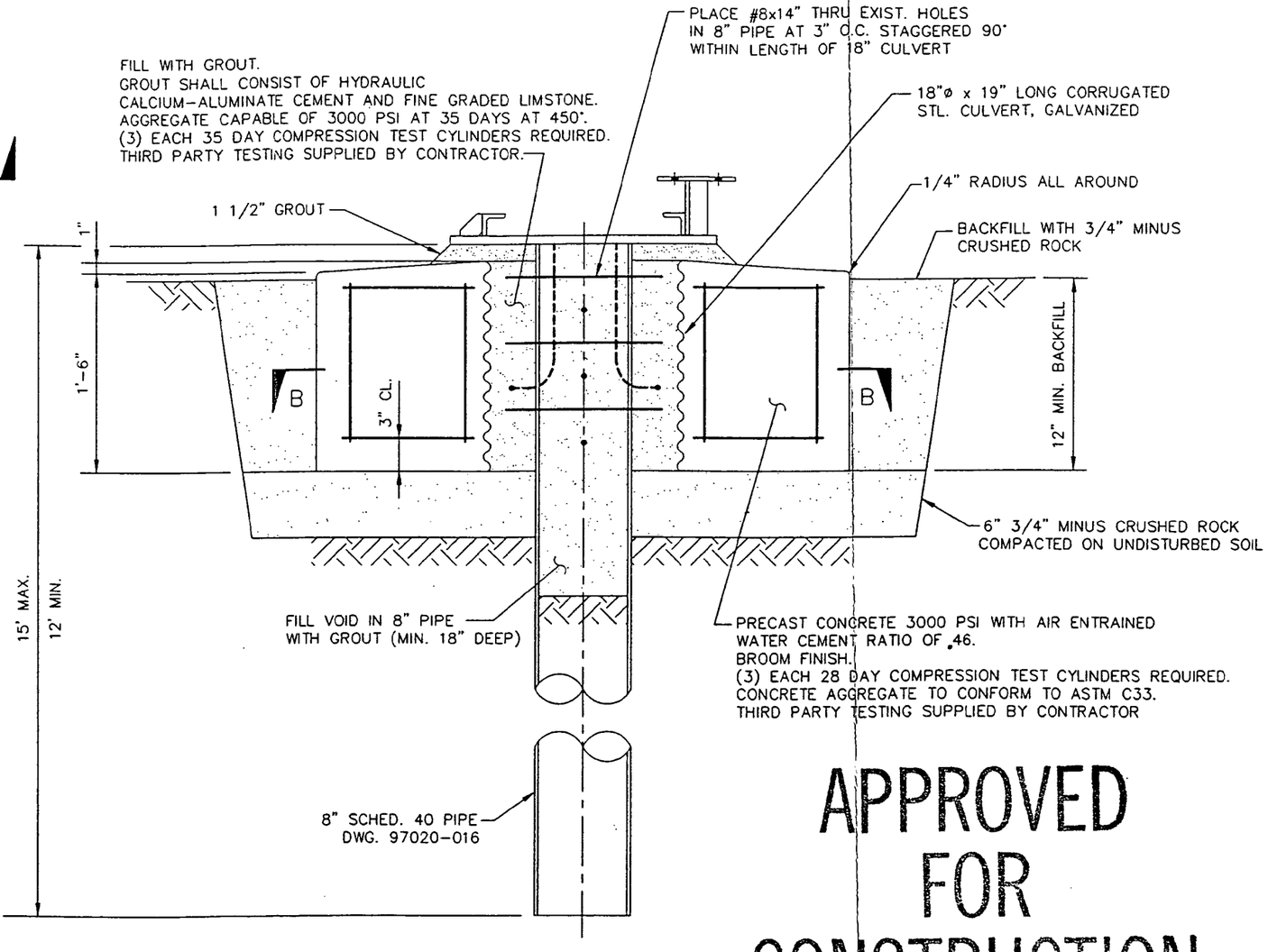
J. CAMERON MCKERNAN COMPANY

By: Cameron McKernan

J. Cameron McKernan, President

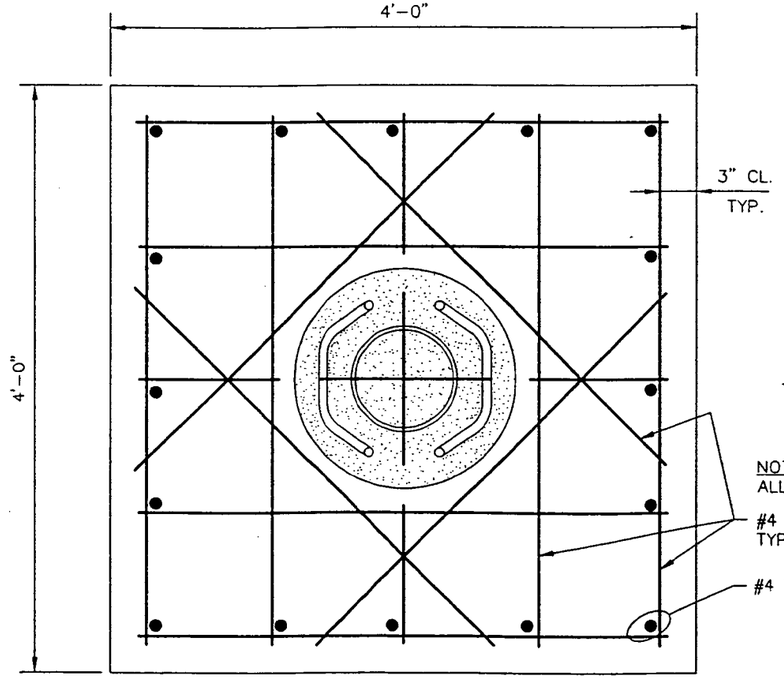
Cc: Koppers Industries, Inc.
Amos Kamerer





SECTION A-A

(100) REQUIRED



SECTION B-B

APPROVED FOR CONSTRUCTION

DATE 3/19/99 BY

KOPPERS REF. DWG. 97010-64

NO.	DATE	REVISION	BY	CHK

McDowell WELDING PIPE FITTING

4000 NW St. Helens Road
Portland, OR 97210

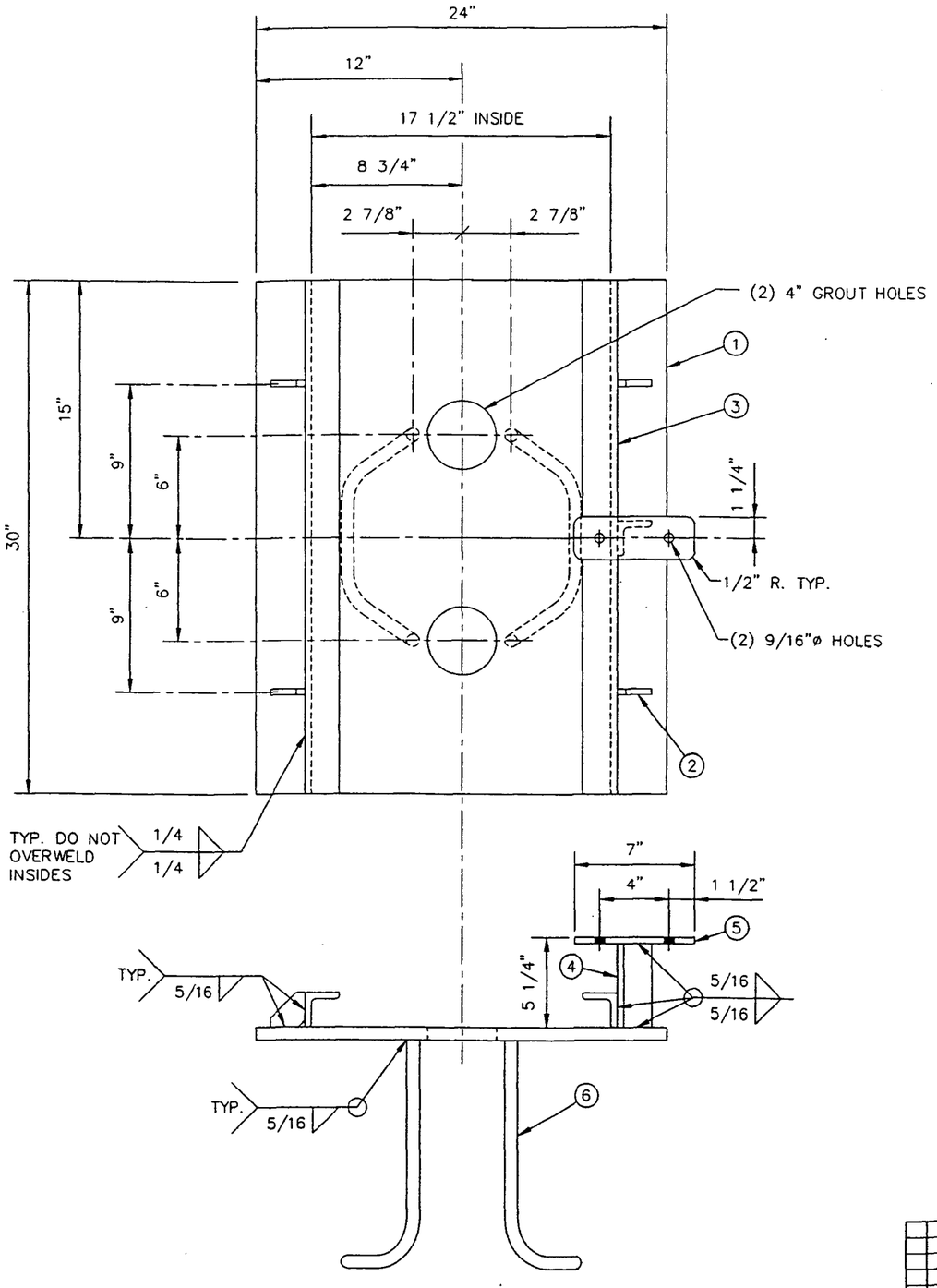
DATE: 3/18/99	ENGR: DGJ	CHK: DGJ	APPVD: DGJ	
ACAD FILE NO.: 92070-00-020		JOB NO.: 92070		

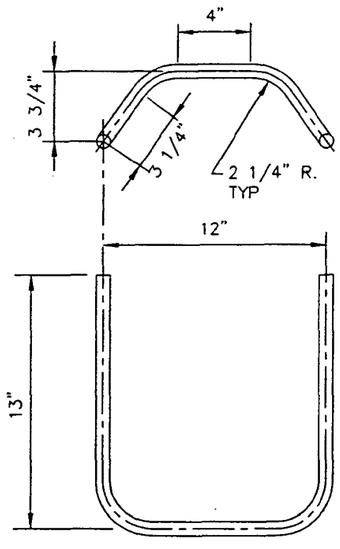
CLIENT: KOPPERS INDUSTRIES
NORTHWEST TERMINAL
PORTLAND, OREGON

TITLE: LIQUID PITCH UNLOADING FACILITY
PIPE SUPPORT FOUNDATION
DETAILS

DATE 3/19/99	DRN BY HF	SCALE 3/8"=1'-0"	
DRAWING NO. 92070-020			REV 0

Koppers019270





ITEM (6)

ITEM	QUANT. ASS'Y	QUANT. EACH	DESCRIPTION	MATERIAL
	100		MK 92070-015-01	
1		1	PL 3/4" x 24" X 30"	A36
2		4	PL 1/4" x 2" X 2"	A36
3		2	L 2 x 2 x 3/8 x 30"	A36
4		1	L 2 x 2 x 3/8 x 4 7/8"	A36
5		1	FB 3/8" x 2 1/2" x 7"	A36
6		2	REBAR #6 x 38 1/16"	A615, GR. 60,

NOTE:
HOT DIP GALVANIZE AFTER FABRICATION PER ASTM A123

APPROVED
FOR
CONSTRUCTION
DATE 3/19/99 BY

REF:
PIPE SUPPORT FOUNDATION DWG. 92070-020

NO.	DATE	REVISION	BY	CHK

WELDING McDowell PIPE FITTING

4000 NW St. Helens Road
Portland, OR 97210

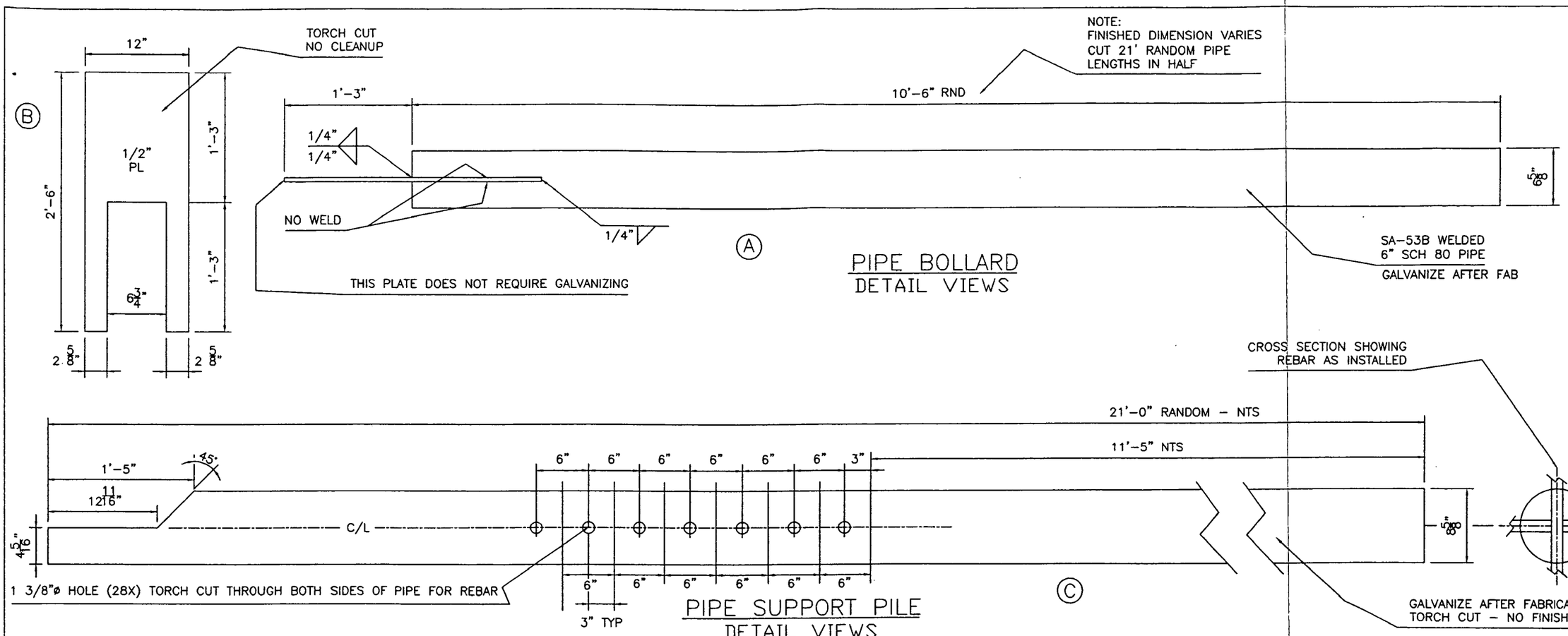
DATE: 3/18/99 | ENGR: DGJ | CHK: DGJ | APPVD: DGJ
ACAD FILE NO.: 92070-00-015 | JOB NO.: 92070

CLIENT: KOPPERS INDUSTRIES
NORTHWEST TERMINAL
PORTLAND, OREGON

TITLE: LIQUID PITCH UNLOADING FACILITY
PIPE SUPPORT PLATE G
DETAILS

DATE 3/16/99 | DWN BY HF | SCALE 1 1/2"=1'-0"
DRAWING NO. 92070-015 | REV. 0

Koppers019271



ITEM	QTY	SIZE	MATERIAL SPECS.	USE
A	20	PIPE 6" SCH 80 X 10'-6" L (RANDOM)	SA-53B WELDED	BOLLARD
B	20	PL 1/2" X 12" X 30", CUT AS SHOWN	SA-36	BOLLARD INSTALLATION PLATE
C	101	PIPE 8" SCH 40 X 21'-0" L (RANDOM), PREPARE AS SHOWN	SA-53B WELDED	PIPE SUPPORT PILE

APPROVED
FOR
CONSTRUCTION
DATE 3/19/99 BY

SHOP	INT ____	DATE ____
QUALITY	INT ____	DATE ____
RELEASE FOR FABRICATION	INT DM	DATE 3-17-99

This drawing and information contained thereon and the design are the property of McDOWELL WELDING & PIPEFITTING, PORTLAND, OR., and must not be traced, reproduced or used in any way detrimental to the interests of the company. It is loaned for the specific purpose intended and must be returned to the company unless written permission is obtained for retention.

JOB # 92070	DRAWN BY: MLN
SCALE: NTS	CHECKED BY: DM
DATE: 3/16/99	APPROVED BY: DM

CLIENT
KOPPERS INDUSTRIES

McDOWELL WELDING
& PIPEFITTING, INC.

DRAWING TITLE
PIPE BOLLARD / PIPE SUPPORT PILE

DRAWING NO. 92070-00-016

REV 0

Koppers019272

J. CAMERON McKERNAN COMPANY

Engineering + Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

FACSIMILE TRANSMITTAL FORM

FILE NO: P97-10

DATE: 3-5-99

TRANSMIT TO: Amos Kamerer

Koppers Industries, Inc.

FAX NUMBER: 285-2831

NUMBER OF PAGES TRANSMITTED INCLUDING THIS COVER SHEET: 5

PROJECT NAME: Portland Liquid Pitch Terminal

TRANSMITTING LETTERS:

McKernan Letter to Koppers re: City of Portland Plan Review - SECOND CHECK SHEET

McKernan Letter to Pacific Technical Industries, Inc. re: City of Portland Special Inspections

LETTERS WILL MAILED TO YOU ALSO

Mary-Anne

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
April 5, 1999

Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon 97210-3663

Attention: Amos Kamerer

Subject: City of Portland Plan Review
SECOND CHECK SHEET

Gentlemen:

The following is a summary of the action/status of the items as of today April 5, 1999:

1 (a) No further action required. However, we will submit a revised Special Inspection Program to incorporate their amendment. done

1 (b) Sent letter by FAX to Pacific Technical Industries, Inc. requesting information required by City of Portland. Waiting for response. to be mailed to city tomorrow

2 McKernan adding two more detail sheets for pipe cross over bridges to show arrangement of rebar in detail. Will be done Friday, April 9th. TOMORROW

3 McKernan will review the tank miscellaneous structure shown on Morse detail plans and provide the appropriate stamp. Probably won't be done until Monday April 12th. MORRIS CAM+BILL

6 McKernan personnel will mark drawings as requested. Will be done on Tuesday April 6th. not fdn. do later

8 Response not required at this time. "

9 KPFF (Sam Moss) is revising drawing to eliminate interference between rebar and piling. Revised drawing will be sent to McKernan for printing and inserting in City of Portland plan package. Will be done on Tuesday April 9th. Done

Cont'd . . .

File No. P97-10
April 5, 1999

Koppers Industries, Inc. (Amos Kamerer)
City of Portland Plan Review
SECOND CHECK SHEET
McKernan Letter Page 2 of 2

10 KPFF (Sam Moss) is revising drawing to correct edge distance. . Revised drawing will be sent to McKernan for printing and inserting in City of Portland plan package. Will be done on Tuesday April 9th. done

Cameron McKernan will be away from the office beginning Monday, April 5th and returning Friday, April 9th. A couple of these items (2 & 3) cannot be done until his return. McKernan office personnel will follow-up on other items during his absence.

Very truly yours,

J. CAMERON MCKERNAN COMPANY

By: Cameron McKernan

J. Cameron McKernan, President

cc: Wm. Meisinger

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

Pacific Technical Industries Inc.
1414 127th Place NE, #107
Bellevue, Washington 98005

File No. P97-10
April 5, 1999

Attention: Doug Nalley

Subject: Pitch Tank for Koppers in Portland (Morse Construction Group)

Reference: City of Portland, Structural Plan Examination Sheet, 2nd Check Sheet Item 1b (attached)

Gentlemen:

We (Cameron McKernan) have talked with Tony Re. The City of Portland needs you to be certified by them before accepting you as the testing agency. They specifically need to know:

- Who are you?
- Who will do the tests (X-RAYS) and other NDT's?
- Who will review the test results?
- What are your qualifications and the qualifications of your technicians doing the tests and the review?
- What is the scope of the work you will perform? Please provide a specific description of the tests and inspections and re-tests you will perform to satisfy the requirements of API 650 for this project.

Please respond as soon as you can. Non-resolution of this item can result in delay of the project. The City of Portland will not issue the Building Permit until this is resolved. You should respond directly to the City of Portland with copies of your data and correspondence to us.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
AGENT FOR KOPPERS INDUSTRIES, INC.

By: Cameron McKernan

J. Cameron McKernan, President

cc: Koppers Industries, Inc.
Amos Kamerer
William Meisinger
Jack L. Stephenson
Morse Construction (Ray Maw)

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS
PO Box 8120
Portland, OR 97207-8120

MULTNOMAH COUNTY

STRUCTURAL PLAN EXAMINATION SHEET

APPLICATION # BLD98-03757
Review Date March 5, 1999

APPLICANT INFORMATION

Name Cameron McKernan Phone 232-7211 Fax 232-7658
Mailing Address 825 NE 20th Ave. Suite 110
Portland, OR-97232

PROJECT INFORMATION

Street Address 7540 NW St. Helens
Description of Work New Tank and Piping for Tar Pitch

Structural Plan Examiner Amit Kumar Phone 503-823-7561 Fax 503-823-7692

PLAN CHECK

The following items are in apparent violation of the specific codes or laws noted. Please revise documents to show compliance. Return this sheet and the marked drawings with corrected plans.

Corr. OK	Item No.	Location on Plans	Apparent Violation or Conflict	Appeal, Code Section or City Ordinance
			SECOND CHECK SHEET The following comments from the Structural Plan Examination Sheet dated March 5, 1999 need further clarification prior to issuance of the permit. Additional comments are in **Bold.**	
	1		Complete and return the attached Special Inspection Form prior to issuance of the permit. **2nd Check Sheet** **(a) In the special inspections form we would like to specifically include as a separate item, the verification of mix design for concrete subject to high temperatures as part of the special inspections to be performed by a special inspection agency (PSI in this case) . As discussed over the telephone and directed by the applicant today, this note has been added to the inspection form which was signed and returned by the applicant earlier. A copy of the modified Special inspection form was faxed to the applicant.** **(b) Response indicated that the tank is to be inspected by Pacific Technical Industries, Inc. The Special Inspection agencies need to be certified by The City of Portland. It appears that the above agency is currently not certified by the City of Portland. Please contact Tony Re at 823-7386 for additional information on obtaining certification.**	
	2		Details shown do not appear to be complete. For example on 97010-69, the footing thickness and reinforcing is not shown, welding of the angle 8x8x3/4 to the "column" is not shown, etc. Please complete all details. **2nd Check Sheet** **The revised drawings are not clear as to layout of the rebar. Are the #8 bars to be placed top and bottom and where are they located ? Are #4 bars @ 12"o.c typical top and bottom ? Please clarify.**	UBC106.3.3.1

Koppers019277

J. CAMERON McKERNAN COMPANY

Engineering + Naval Architecture

825 NE 20th Avenue, Suite 110 * Portland, Oregon 97232 * (503) 232-7211 * FAX (503) 232-7658

FACSIMILE TRANSMITTAL FORM

FILE NO: P97-10

DATE: 3-5-99

COPY

TRANSMIT TO: Doug Nalley

Pacific Tehnical Industries, Inc.

FAX NUMBER: (425) 646-9282

NUMBER OF PAGES TRANSMITTED INCLUDING THIS COVER SHEET: 3

PROJECT NAME: Koppers Liquid Pitch Terminal

TRANSMITTING LETTER:

RE: City of Portland Special Inspections. Original letter will be mailed.

Mary Anne McKernan

RECEIVED

APR - 6 1999

KOPPERS INDS, INC.
PORTLAND OR

J. CAMERON McKERNAN COMPANY

Engineering & Naval Architecture

825 NE 20th Avenue, Suite 110 • Portland, Oregon 97232 • (503) 232-7211 • FAX (503) 232-7658

Pacific Technical Industries Inc.
1414 127th Place NE, #107
Bellevue, Washington 98005

File No. P97-10
April 5, 1999

Attention: Doug Nalley

Subject: Pitch Tank for Koppers in Portland (Morse Construction Group)

Reference: City of Portland, Structural Plan Examination Sheet, 2nd Check Sheet Item 1b (attached)

COPY

Gentlemen:

We (Cameron McKernan) have talked with Tony Re. The City of Portland needs you to be certified by them before accepting you as the testing agency. They specifically need to know:

- Who are you?
- Who will do the tests (X-RAYS) and other NDT's?
- Who will review the test results?
- What are your qualifications and the qualifications of your technicians doing the tests and the review?
- What is the scope of the work you will perform? Please provide a specific description of the tests and inspections and re-tests you will perform to satisfy the requirements of API 650 for this project.

Please respond as soon as you can. Non-resolution of this item can result in delay of the project. The City of Portland will not issue the Building Permit until this is resolved. You should respond directly to the City of Portland with copies of your data and correspondence to us.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
AGENT FOR KOPPERS INDUSTRIES, INC.

By: Cameron McKernan

J. Cameron McKernan, President

cc: Koppers Industries, Inc.
Amos Kamerer
William Meisinger
Jack L. Stephenson
Morse Construction (Ray Maw)

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS
PO Box 8120
Portland, OR 97207-8120

MULTNOMAH COUNTY

STRUCTURAL PLAN EXAMINATION SHEET

APPLICATION # BLD98-03757
Review Date March 5, 1999

APPLICANT INFORMATION

Name Cameron McKernan Phone 232-7211 Fax 232-7658
Mailing Address 825 NE 20th Ave. Suite 110
Portland, OR-97232

PROJECT INFORMATION

Street Address 7540 NW St. Helens
Description of Work New Tank and Piping for Tar Pitch

Structural Plan Examiner Amit Kumar Phone 503-823-7561 Fax 503-823-7692

PLAN CHECK

The following items are in apparent violation of the specific codes or laws noted. Please revise documents to show compliance. Return this sheet and the marked drawings with corrected plans.

Corr. OK	Item No.	Location on Plans	Apparent Violation or Conflict	Appeal. Code Section or City Ordinance
			SECOND CHECK SHEET The following comments from the Structural Plan Examination Sheet dated March 5, 1999 need further clarification prior to issuance of the permit. Additional comments are in **Bold.**	
	1		Complete and return the attached Special Inspection Form prior to issuance of the permit. **2nd Check Sheet** **(a) In the special inspections form we would like to specifically include as a separate item, the verification of mix design for concrete subject to high temperatures as part of the special inspections to be performed by a special Inspection agency (PSI in this case) . As discussed over the telephone and directed by the applicant today, this note has been added to the inspection form which was signed and returned by the applicant earlier. A copy of the modified Special inspection form was faxed to the applicant.** **(b) Response indicated that the tank is to be inspected by Pacific Technical Industries, Inc. The Special Inspection agencies need to be certified by The City of Portland. It appears that the above agency is currently not certified by the City of Portland. Please contact Tony Re at 823-7386 for additional information on obtaining certification.**	
	2		Details shown do not appear to be complete. For example on 97010-69, the footing thickness and reinforcing is not shown, welding of the angle 8x8x3/4 to the "column" is not shown, etc. Please complete all details. **2nd Check Sheet** **The revised drawings are not clear as to layout of the rebar. Are the #8 bars to be placed top and bottom and where are they located ? Are #4 bars @ 12"o.c typical top and bottom ? Please clarify.**	UBC106.3.3.1

Koppers019280

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 26, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

Attention: Amit Kumar, Structural Plan Examiner

Subject: Application #BLD98-03757
Structural Plan Examination Sheet
Review Date March 5, 1999

COPY

Enclosures: As indicated on the attached list.

Gentlemen:

In response to your plan review comments, we summarize our actions (Item Nos. correspond to your Item Nos.):

1. Special Inspection Form returned herewith with an attached List of Special Inspections and Structural Observations.

2. Plan Nos. 97010-69 & -70 have been revised to incorporate missing details.

3. Plan 6526-A001 & A002 are conceptual as you noted. These plans were intended to be guidance for the tank vendor in developing the tank design. We have now received the tank vendor's drawings (Morse Construction Group, Inc. No. 2380-P0-6158, 50 sheets, Dwg # 23800101 through 23800149). These drawings are submitted herewith.

4. Pipe support details shown on Plan No. 6526-A006 have been revised to add welding requirements. It is intended to weld the base support clips to the tank during erection of the tank. Later the pipe support bracket would be bolted to the already in place support clips.

5. Plan No. 6526-C006 is correct. Although the general slab area is 6" thick as shown on the KPFF drawings, it is intended to "thicken" the slab to 12" in way of the pumps to provide mass to reduce vibration effects. The KPFF drawings (98567-S10 and -S11) have been revised to indicate the 12" thick slab in way of the pumps and Section 8/S11 has been added.

Cont'd . . .

cc: Amos Kamerer

Koppers019281

City of Portland, Oregon
Bureau of Buildings (Attention: Amit Kumar)
Application #BLD98-03757
Structural Plan Examination Sheet Review Date March 5, 1999

COPY

6. The Contractor is in the process of preparing detail drawings of the connections. When the details are available, they will be submitted to you for review. We do not expect you to issue a permit for these structures until after you review the detail drawings.

7. The structure is completely open at the sides. The calculations do contain structural requirements for side wind girts as if side walls are installed. There are no side walls so there is no requirement for side wall supporting girts. The girt calculations are redundant.

8. Knee braces are <u>not</u> required at details A-A and D-D at the 56' elevation as shown in SEC B-B. The existing tower shown at the right in SEC A-A and the new columns provide sufficient rigidity to resist the lateral loads without excessive deflection or over stressing the members. The detail connection plans will be prepared to show adequate corner connections.

9. Your observation regarding interference with re-bar and piling is correct. Plan 98567-S11 has been revised to show an adjustment to eliminate the interference.

10. Please note the anchor bolts have been changed from 2 3/8" diameter to 2 ½" diameter because of commercial availability. The edge distance from the edge of the concrete ring <u>was</u> considered in determining the capacity of the anchor bolts. See the revised calculations page B8 and the pages following.

11. The pilings are 16" outside diameter with ½" wall thickness. The drawing (98567-S10 Rev 2 Note 1) has been revised to show the 16" pile size as 16" (O.D.) See also 98567-S11 Rev 2 Detail 3. The revised calculations show the pilings as 16" O.D. by ½" wall thickness. See revised calculations sheet No. 9 and pages following.

12. Revised Plan No. 98567-S10 Rev 2 shows correct section call-out.

13. Revised Plan No. 98567-S12 Rev. 2 shows correct section call-out.

14. We have received a letter from GeoEngineers (GeoEngineers letter to McKernan dated March 22, 1999) addressing your concerns. This letter is attached.

15. Same reply as 14 above.

Cont'd . . .

File No. P97-10
March 26, 1999

City of Portland, Oregon
Bureau of Buildings (Attention: Amit Kumar)
Application #BLD98-03757
Structural Plan Examination Sheet Review Date March 5, 1999

COPY

16. Your comment is addressed in the KPFF revised calculations on pages P8 through P11.

17. Page 14 of the KPFF calculations has been deleted. The foundation tank base loads calculated by Roberts Engineering using API 650 are used in the revised KPFF calculations.

18. Roberts and KPFF agreed to follow API Standards which give more realistic behavior of the tanks.

19. The detail drawings from the Morse Construction Group have been completed. Morse No. 2380-P0-6158, 50 sheets, Dwg. #'s 23800101 through 28300149 are transmitted herewith.

    Shop construction details can be found as follows:
    Shell plates' courses and their connection details are found on Sheet 3 of 50 (Dwg. 23800103).
    Roof's inner ring detail and connection are found on Sheet 13 of 50 (Dwg. 23800113).
    Roof plates' layout design, sizes and thickness and connection are on Sheets 9 and 10 of 50, Dwg. 23800109 and 23800110 respectively.
    Anchor bolts and chair plates are on Sheet 5 of 50 (Dwg. 23800105).
    For other items not listed please see drawing list on Sheet 1 of 50 (Dwg. 23800101).

20. Roberts Sketch SK2 and SK2B in Roberts calculations are incorporated on Sheet 5 of 50 of the Morse drawings.

21. Roberts calculations pages R9 and R10 provide check on the capacity versus loads with 5% Eccentricity included. The column design on Sheet 13 of 50 (Dwg. 23800113) is OK.

22. To allow for possible uneven thermal growth of tank shell versus other parts, the center column is not welded to this tank bottom. Please see revised calculation page R7 using the correct wind speed. The whole roof's uplift can be resisted by the bolted connections of the purlins to the shell. However, as an added measure, retainer plates are added so that the column cannot slip out of the lateral restraints. (Please see page R11.)

Cont'd . . .

File No. P97-10
March 26, 1999

City of Portland, Oregon
Bureau of Buildings (Attention: Amit Kumar)
Application #BLD98-03757
Structural Plan Examination Sheet Review Date March 5, 1999

COPY

If you have an further comments or questions please contact Sam Moss at KPFF or Cameron McKernan. We thank you for your attention to our submittal and request for a Building Permit.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: Cameron McKernan
J. Cameron McKernan, President

cc: KPFF
Sam Moss - w/List of Enclosures and enclosures 1 & 2
Koppers Industries, Inc.
Amos Kamerer - w/List of Enclosures and enclosures 1 & 2
William Meisinger - w/List of Enclosures and enclosures 1 & 2

McKernan letter to City of Portland
Structural Plan Review
Application #BLD98-03757
List of Enclosures

File No. P97-10
March 26, 1999

1. Structural Plan Examination Sheet, Review Date March 5, 1999

2. Structural Special Inspection and Observation Program (6 sheets including City of Portland owner signed cover dated March 5, 1999 labeled Page 5 of 6 and signed by owner on 3/26/99.

3. GeoEngineers Letter to McKernan dated March 22, 1999

COPY

4. KPFF Consulting Engineers Pitch Tank Design Calculations dated March 15, 1999

5. Roberts Engineers Design Calculations for Pitch Tank T200 Updated 3/15/99

6. Drawing Revisions (these revised plans have been delivered to the City of Portland Building's Document Control Room and inserted in the plan packages. The preceding revisions have been removed). 4 copies each.

PLAN NO.	REV.	TITLE
97010-21	3	SITE PLAN
97010-69	1	ROAD CROSSOVER BRIDGE
97010-70	1	DOORWAY CROSSOVER BRIDGE
6526-G001	1	DRAWING INDEX
6526-A006	1	SUPPORT CLIP DETAILS
98567-S09	2	GENERAL STRUCTURAL NOTES
98567-S10	2	STRUCTURAL FOUNDATIONS
98567-S11	2	STRUCTURAL DETAILS
98567-S12	2	STRUCTURAL DETAILS

7. New Drawings by Morse Construction Group, Inc. (these new drawings have been delivered to the City of Portland Building's Document Control Room and inserted in the plan packages). 4 copies each.

   Morse No. 2380-P0-6158, 50 sheets, Dwg. #'s 23800101 through 28300149.

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS
PO Box 8120
Portland, OR 97207-8120

MULTNOMAH COUNTY

STRUCTURAL PLAN EXAMINATION SHEET

APPLICATION # BLD98-03757
Review Date March 5, 1999

APPLICANT INFORMATION

Name Cameron McKernan Phone 232-7211 Fax 232-7658
Mailing Address 825 NE 20th Ave. Suite 110
Portland, OR-97232

PROJECT INFORMATION

Street Address 7540 NW St. Helens
Description of Work New Tank and Piping for Tar Pitch

Structural Plan Examiner Amit Kumar Phone 503-823-7561 Fax 503-823-7692

PLAN CHECK

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Corr. OK	Item No.	Location on Plans	Apparent Violation or Conflict	Appeal, Code Section or City Ordinance
	1		Complete and return the attached Special Inspection Form prior to issuance of the permit.	
	2	6526-69,70	Details shown do not appear to be complete. For example on 97010-69, the footing thickness and reinforcing is not shown, welding of the angle 8x8x3/4 to the "column" is not shown, etc. Please complete all details.	UBC106.3.3.1
	3	6526-A001, A002	Please provide complete details of stair and access platform support . Detail 14 and 16/A002 appear to be conceptual in nature. Please show connection to the main tank including all welds, bolts etc.	UBC106.3.3.1
	4	6526-A006	Pipe support details do not appear to be complete. For example connection of the support to the tank is not shown, attachment of the angle 3x3 to the W6 is not shown etc. Please clarify.	UBC106.3.3.1
	5	6526-C006	Detail FF indicates a 12" slab on grade with #4 @12"o.c each way and refers to KPFF drawing. KPFF drawing (1/S11) indicates a 6" slab on grade with # 4 @ 18"o.c. each way. Please clarify.	UBC106.3.3.1
	6	6526-S001 thru S006	General notes on S004 indicates that the connections are to be designed by the contractor. Before a permit for these structures can be issued, the design of these connections should be completed and drawings stamped and submitted for review.	Title 24.10.07c
	7	6526-002	Is the roof shed a completely open structure ? If not are any wind girts required. Calculations on sheet 6526-2 page 4 seems to indicate that girts are required but none are shown on the drawing. Please clarify.	UBC106.3.3.1
	8	6526-003	Please verify if "Knee Braces are not required at details A_A and D_D at the 56' elevation as shown on section B-B.	UBC106.3.3.1
	9	98567-S11	Detail 1/S11 shows bottom reinforcing placed 3" above the bottom of the pile cap while the piles extend 1'-3" into the pile cap. With the layout of the reinforcing as shown on 2/S11 and layout of piles shown on S10, it appears that the piles would interfere with the rebar. Should the re-bar be moved up above the top of piles to avoid interference ? Please verify	UBC106.3.3.1

Koppers019286

	10	1/S11	Please verify that the edge distance from the edge of concrete ring wall was considered when determining the concrete capacity in pull out for the 2 3/8 " diameter anchor bolts.	Title 24.10.07c
	11	S10	Note 1 indicates that the piles are to be 16" diameter x ½" wall. Calculations were based on 16" dia. with 5/8" wall. Please clarify. In addition please note on the drawings that the diameter of the pipe is the O.D.	Title 24.10.07c
	12	S10	Section cut at trench is referenced as 7/S12. This appears to be incorrect . Please verify and update drawings.	UBC106.3.3.1
	13	S12	Detail 7 references detail 5 and 6/S11. This appears to be incorrect. Please verify and update drawings	UBC106.3.3.1
	14	KPFF Calcs.	The calculations assume that the lateral shear from the tank and it's contents is transferred in friction between the steel bottom plate to the sand barrier then to the light weight fill , to the pile cap and finally to the piles. Please provide a written and stamped confirmation from the geo-technical engineer stating that the total base shear as calculated by KPFF can be transferred via this mechanism to the piles.	Title 24.10.07c
	15	KPFF Calcs.	The contents of the tank are supported on sand barrier and a light weight fill. Is the fill adequate to support the contents of the tank. Please provide a written confirmation from the geo-technical engineer verifying this.	Title 24.10.07c
	16	KPFF Calcs	Page P9 of the calculations : The statement at the end of the page indicates that the thermal stresses in the pile and the seismic forces will counteract. While this may be true for piles in one half of the pile cap, the stresses would add for the piles on the opposite half of the piles . Please comment and verify.	Title 24.10.07c
	17	KPFF Calcs.	Page 14. In determining the seismic loads from the contents of the tank the equation P/A + M/S was used. This equation would apply only for solids and not liquid material being considered here. The overturning effects would be resisted by the tanks walls. Please comment. Results from this equation were used at other locations in the calculations for ex. on page C20. Please verify.	Title 24.10.07c
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	19	Drawings from Roberts Eng.	The drawings from Morse construction group are in-complete. They do-not have all the necessary details for example : how are the different courses of the shell connected, what is the inner ring at the roof composed of , what is the roof plate thickness and how is it attached, etc. Please complete all the necessary details	UBC106.3.3.1
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Koppers019287

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INFORMATION AND INSTRUCTIONS

1. Codes referenced for this review:
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Koppers019289

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.

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[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.

C. [X] Structural Observation by Engineer of Record. Indicate stages at which structural observation is to occur:

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 _____ Phone No. _____

Firm _____ Date _____

Amit Kumar
Structural Plans Examiner

Koppers019290

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS
P.O. Box 8120
Portland, OR 97207
FAX # 823-5434

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SEE ATTACHED SHEETS

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SEE ATTACHED SHEETS

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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 26, 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

COPY

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.

Koppers019293

- Miscellaneous Structures in Tank Area (As Shown on the Following Plans):

COPY

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: J. Cameron McKernan Company

- 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)

Koppers019294

- 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

COPY

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

Koppers019295

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	Sur'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	Othes		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: _____

COPY

TOTAL P.02

COMPANY CONTACTS

COPY

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

Koppers019297

GRESHAM TRANSFER INC.

PORTLAND TERMINAL: (503) 255-7900 • 1-800-727-7900
KENT TERMINAL: (206) 878-7980 • 1-800-727-7980

CAM 3/12/99

- City's biggest issue is the TANK itself
- KPFF is talking to Roberts Eng.
  - Roberts not responding in a timely fashion.
  - Bill will call Morse TANK re this
- Tuttle/Geo - out of town
  - won't get him until MON. or TUES.
- McDowell sent 2 foundation design drawings for pipe supports.

kpff
Consulting Engineers

111 SW FIFTH AVENUE SUITE 2500
PORTLAND, OR 97204-3628
(503) 227-3251 FAX: (503) 227-7980

File NO. P97-10

Post-it® Fax Note 7671	Date 3-8-99	# of pages ▶ 8
To AMOS	From CAM	
Co./Dept.	Co.	
Phone #	Phone # 232-7211	
Fax # 285-2831	Fax #	

ATTENTION: CAMERON McKERNAN	DATE: 3/8/99	JOB NO. 9ES67
COMPANY:	RE:	
FROM: SAM MOSS	PAGES SENT: 7	

MESSAGE:

COPIES SENT TO:

☐ _____ ☐ _____

☐ _____ ☐ _____

HARD COPY MAILED YES ☐ NO ☐

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CONTACT THE SENDER

05-Mar-1999 16:05:36

Fax Cover Page

TO: Sam Moss

2277980

FROM: Amit Kumar

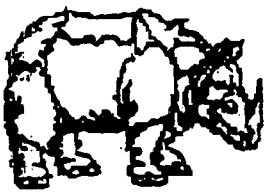
Comments:

Structural comments for New Tank at NW St. Helens.

Sam : This is a copy of the comments faxed to Cameron McKernan the applicant

232-7658

Total pages with cover: 7



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CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS
PO Box 8120
Portland, OR 97207-8120

MULTNOMAH COUNTY

STRUCTURAL PLAN EXAMINATION SHEET

APPLICATION # BLD98-03757
Review Date March 5, 1999

APPLICANT INFORMATION

Name Cameron McKernan Phone 232-7211 Fax 232-7658
Mailing Address 825 NE 20th Ave. Suite 110
Portland, OR-97232

PROJECT INFORMATION

Street Address 7540 NW St. Helens
Description of Work New Tank and Piping for Tar Pitch

Structural Plan Examiner Amit Kumar Phone 503-823-7561 Fax 503-823-7692

PLAN CHECK

The following items are in apparent violation of the specific codes or laws noted. Please revise documents to show compliance. Return this sheet and the marked drawings with corrected plans.

Corr. OK	Item No.	Location on Plans	Apparent Violation or Conflict	Appeal, Code Section or City Ordinance
	1		Complete and return the attached Special Inspection Form prior to issuance of the permit.	
	2	6526-69,70	Details shown do not appear to be complete. For example on 97010-69, the footing thickness and reinforcing is not shown, welding of the angle 8x8x3/4 to the "column" is not shown, etc. Please complete all details.	UBC106.3.3.1
	3	6526-A001, A002	Please provide complete details of stair and access platform support. Detail 14 and 16/A002 appear to be conceptual in nature. Please show connection to the main tank including all welds, bolts etc.	UBC106.3.3.1
	4	6526-A006	Pipe support details do not appear to be complete. For example connection of the support to the tank is not shown, attachment of the angle 3x3 to the W6 is not shown etc. Please clarify.	UBC106.3.3.1
	5	6526-C006	Detail FF indicates a 12" slab on grade with #4 @12"c.c each way and refers to KPFF drawing. KPFF drawing (1/S11) indicates a 6" slab on grade with # 4 @ 18"o.c. each way. Please clarify.	UBC106.3.3.1
	6	6526-S001 thru S006	General notes on S004 indicates that the connections are to be designed by the contractor. Before a permit for these structures can be issued, the design of these connections should be completed and drawings stamped and submitted for review.	Title 24.10.07c
	7	6526-002	Is the roof shed a completely open structure ? If not are any wind girts required. Calculations on sheet 6526-2 page 4 seems to indicate that girts are required but none are shown on the drawing. Please clarify.	UBC106.3.3.1
	8	6526-003	Please verify if "Knee Braces are not required at details A_A and D_D at the 56' elevation as shown on section B-B.	UBC106.3.3.1
	9	98567-S11	Detail 1/S11 shows bottom reinforcing placed 3" above the bottom of the pile cap while the piles extend 1'-3" into the pile cap. With the layout of the reinforcing as shown on 2/S11 and layout of piles shown on S10, it appears that the piles would interfere with the rebar. Should the re-bar be moved up above the top of piles to avoid interference ? Please verify.	UBC106.3.3.1
	10	1/S11	Please verify that the edge distance from the edge of concrete ring wall	Title 24.10.07c

			was considered when determining the concrete capacity in pull out for the 2 3/8 " diameter anchor bolts.	
	11	S10	Note 1 indicates that the piles are to be 16" diameter x ½" wall. Calculations were based on 16" dia. with 5/8" wall. Please clarify. In addition please note on the drawings that the diameter of the pipe is the O.D.	Title 24.10.07c
	12	S10	Section cut at trench is referenced as 7/S12. This appears to be incorrect . Please verify and update drawings.	UBC106.3.3.1
	13	S12	Detail 7 references detail 5 and 6/S11. This appears to be incorrect. Please verify and update drawings	UBC106.3.3.1
	14	KPFF Calcs.	The calculations assume that the lateral shear from the tank and it's contents is transferred in friction between the steel bottom plate to the sand barrier then to the light weight fill , to the pile cap and finally to the piles. Please provide a written and stamped confirmation from the geo-technical engineer stating that the total base shear as calculated by KPFF can be transferred via this mechanism to the piles.	Title 24.10.07c
	15	KPFF Calcs.	The contents of the tank are supported on sand barrier and a light weight fill. Is the fill adequate to support the contents of the tank. Please provide a written confirmation from the geo-technical engineer verifying this.	Title 24.10.07c
	16	KPFF Calcs	Page P9 of the calculations The statement at the end of the page indicates that the thermal stresses in the pile and the seismic forces will counteract While this may be true for piles in one half of the pile cap, the stresses would add for the piles on the opposite half of the piles . Please comment and verify.	Title 24.10.07c
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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

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Architect of Record (Firm) J. Cameron McKernan Phone # 232-7211

Engineer of Record (Firm) KPFF Consulting Engineers and Roberts Engineers Phone # 227-3251

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B. Indicate the special inspector or approved testing agency to perform the special inspections noted in Part A above.

C. [X] Structural Observation by Engineer of Record. Indicate stages at which structural observation is to occur:

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

Phone No.

Firm

Date

Amit Kumar
Structural Plans Examiner

Koppers019306

ACTION LIST

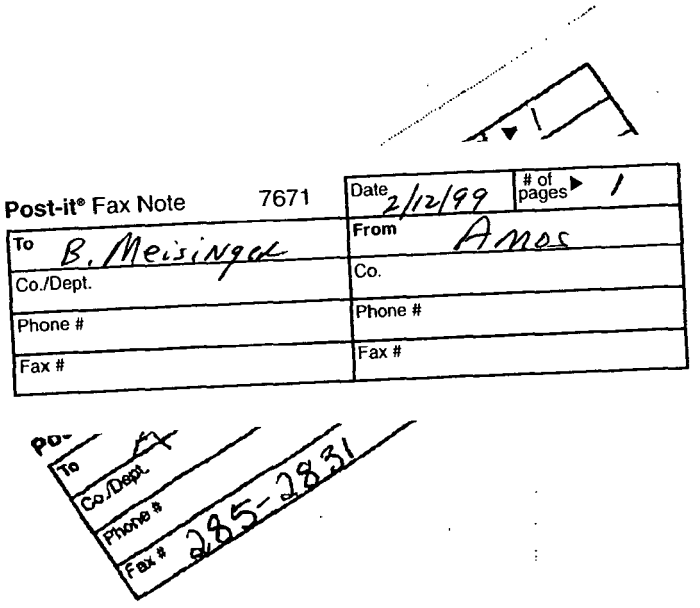
Date : 12-FEB-99
Report: PRN_ACT.REP

CASENO : BLD98-03757
PROJECT : 92-106809
APPLICANT: CAMERON MCKERNAN
RECEIVED : 07/27/92
STATUS : PENDING
LOCATION : 7540 NW ST HELENS RD N

ACTIONS/ASSIGNMENTS

HOLD	DESCRIPTION	ASSIGNED	CHECKED OUT	APPROVED	PLAN SET
	APPLICATION RECEIVED	10/09/98			
	SCAN - ASSIGN PLAN REVIEWS	10/09/98		01/12/99	
	SPECIAL INSPECT. FORM REC'D	02/12/99			SOIL
	PLAN REVIEW RECEIPT	12/23/98		12/23/98	
	PLAN REVIEW RECEIPT	12/30/98			
Y	PLAN REVIEW - I. JONES 7284	01/12/99			
Y	STRUCTURAL - WALKIEWICZ 7649	01/12/99	01/12/99		SCND
	SITE DEV CHECK SHEET ISSUED	02/02/99			
	SITE DEV CORRECTIONS RECEIVED	02/12/99			
	SITE DEV REVIEW - MORGAN 5824	01/19/99		02/02/99	
Y	SPECIAL INSPECTIONS	02/02/99			
	FIRE MARSHAL - BOYLES 3778	01/12/99		01/21/99	DONE
Y	PLANNING BUREAU REVIEW 7685	10/09/98	01/12/99		
	PLANNING CHECK SHEET ISSUED	01/23/99			
	PLANNING CORRECTIONS REC'D	02/12/99			
Y	SOURCE CONTROL 7122	01/12/99			
	SOURCE CHECK SHEET	01/12/99	01/22/99	01/22/99	READ
	SOURCE CORRECTIONS RECEIVED	02/12/99			

NOTE: THE LETTER "Y" IN THE "HOLD" COLUMN INDICATES THIS ACTION HAS NOT BEEN APPROVED AND IS REQUIRED FOR PERMIT ISSUANCE.



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
February 24, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

Attention: Irwin Jones, Plans Examiner

Subject: Koppers Industries, Inc.
7540 NW St. Helens Road
Building Permit No. BLD98-03757
Valuation & Fee

COPY

Gentlemen:

When we submitted our request for a Building Permit we used an "engineers" estimate for the total cost of all the project work. Since that time we have obtained construction bids and tentatively selected contractors. We have also reduced the work scope. Particularly, we plan to build only one tank and one foundation at this time. Based on this reduced scope of work and the bids received, the project costs are as follows:

One tank	$ 343,000
Process equipment	310,000
Process piping	1,080,000
Insulation	378,000
Tank & process piping sub-total	2,111,000
One tank foundation and misc. structures (civil work)	1,049,000
Electrical & instrumentation work	733,000
Total Project	$3,893,000

Cost of engineering is included in the above number.

We understand your plan review and building permit are for the Foundations and Miscellaneous Structures (civil work) only.

We are submitting the tank and process Piping Plans to the Fire Bureau for a "Tank Permit." We are also submitting the Electrical Plans & Specifications to your Bureau of Buildings Electrical Permit Section.

RECEIVED
FEB 26 1999
KOPPERS INDS, INC.
PORTLAND OR

Koppers019308

File No. P97-10
February 24, 1999

City of Portland, Oregon (Bureau of Buildings)
Attention: Irwin Jones, Plan Examiner
Koppers Industries, Inc. – 7540 NW St. Helens Road
Building Permit No. BLD98-03757
Valuation & Fee

COPY

We would appreciate your review of the current cost data. We request you adjust the building permit fee so there is not a duplication of fees by the several permitting bureaus. We would be pleased to answer any questions you have and to discuss the project cost further if you desire.

Please advise us of the amount we are to pay at the time you issue the Building Permit.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: Cameron McKernan
J. Cameron McKernan, President

cc: Koppers Industries, Inc.
Amos Kamerer
William Meisinger

CITY OF PORTLAND

BUREAU OF BUILDINGS

BUILDING PLAN REVIEW RECEIPT

BUILDING PERMIT NUMBER: BLD98-03757 DATE: 07/27/92

JOB ADDRESS : **754 NW ST HELENS RD**
PROJECT NAME: 92-106809
DESCRIPTION : NEW TANK AND PIPING FOR COAL TAR PITCH

APPLICANT : **MCKERNAN**
VALUATION : $4,050,000.00

TYPE OF WORK : ALT
CONSTRUCTION TYPE: VN
OCCUPANCY GROUP : U2

COPY

FEES

FEE DESCRIPTION	AMOUNT FEE	AMOUNT DUE	UPDATED
PLAN CHECK/PROCESS FEE.(0111)	$8,574.02	$8,574.02	10/09/98
FIRE CODE ENFORCEMENT (0701)	$2,110.52	$2,110.52	10/09/98
FIRE LIFE SAFETY PLAN REV*0110	$5,276.32	$5,276.32	10/09/98
PLANNING PLAN CHECK (0246)	$4,050.00	$4,050.00	10/09/98
TOTAL FEES DUE:	$20,010.86	**$20,010.86**	

THIS IS NOT A PERMIT.
THE PERMIT WILL BE ISSUED TO YOU UPON THE COMPLETION OF PLAN REVIEW.

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
February 24, 1999

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

Attention: Irwin Jones, Plans Examiner

Subject: Koppers Industries, Inc.
7540 NW St. Helens Road
Building Permit No. BLD98-03757

COPY

Enclosures:

PLAN NO.	REV.	TITLE
98567-S09	1	STRUCTURAL FOUNDATION PLAN
98567-S10	1	STRUCTURAL FOUNDATION PLAN
98567-S11	1	STRUCTURAL DETAILS

Gentlemen:

We submit four copies of the above plans showing a reduction of the work scope on this project. Particularly, we plan to build only one tank and one foundation at this time. The submitted revised plans show the single tank foundation we plan to build at this time.

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.
Amos Kamerer
William Meisinger

RECEIVED

FEB 26 1999

KOPPERS INDS, INC.
PORTLAND OR

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS
PO Box 8120
Portland, OR 97207-8120

MULTNOMAH COUNTY

SITE DEVELOPMENT PLAN EXAMINATION SHEET APPLICATION # BLD98-03756

Review Date: December 17, 1998

APPLICANT INFORMATION

Name	Cameron McKernan	Phone: 503/232-7211	Fax: 503/232-7658
Mailing Address	825 Northeast 20th Avenue, Suite 100 Portland, Oregon 97232		

COPY

PROJECT INFORMATION

Street Address	754 Northwest Saint Helens Road		
Description of Work	Remodel Dock and Add Bridge		
Plan Examiner	Douglas Morgan, P.E.	Phone: 503/823-5824 E-mail:	Fax: 503/823-7915

PLAN CHECK

The plans and calculations were reviewed and require the following corrections or clarifications. Please revise the plans according to the comments and submit the corrected plans to Document Control.

Corr. done	Item No.	Location on Plans	Comments
	1		Special inspection will be required for this project. Please sign the attached *Soils Special Inspections* form and return it to the Bureau of Buildings Document Control counter located on the 9th floor of the Portland Building or fax it to 503/823-7692.
	2	Geotech.	Please provide written recommendations for the pile foundations from a registered geotechnical engineer, including: A) Pile capacities for the various pile types and sizes. B) Required embedment depth for the capacities. C) Pile driving/refusal criteria. D) Include this information on the drawings.
	3		Please submit approved copies of the *Corps of Engineers* and *Department of State Lands* permits.

Koppers019312

INFORMATION AND INSTRUCTIONS

1. Codes referenced for this review:
   a) The 1996 State of Oregon Structural Specialty Code and Fire and Life Safety Regulations (1994 U.B.C. with State of Oregon revisions), and current U.B.C. Standards.
   b) The 1996 State of Oregon Mechanical Code (1994 U.M.C with State of Oregon revisions).

2. Code sections or references are listed for the applicants' and staff reference. In many cases it will be necessary to refer to the referenced code for the sections noted in order to properly address the violations. The Bureau of Buildings does not provide copies of the codes for this purpose.

3. This check sheet is for the Specialty Area noted on the face of the sheet only. Please note other specialty check sheet items must be addressed. Permits cannot be issued until **all** check sheets have been responded to in a manner acceptable. Responses to check sheets from other Bureaus are to be routed through the Bureau of Buildings Document Control.

NOTE: **To assist us in providing timely reviews of corrected plans please do the following.**

1. Provide a response letter showing the location of each correction in reference to the Plan Examination Sheet.

2. Plans can not be approved until all corrections have been made. Please make all corrections to the original tracing and reprint. Return the marked copy, along with four (4) corrected sets of plans, to Document Control. Note corrections made on the plans for easy reference.

   Exceptions:
   Where approved by the Bureau, minor corrections may be made to the submitted plans with black felt-tip pen. All corrections must be of a quality that will microfilm clearly. Plans are not considered updated until corrections are made to all four sets as rechecks are done on the first available set.

3. Notify the Document Control staff that you are submitting corrections for the **Site Development review.** To insure that the plan reviewer receives notification, verify that the computer has been updated to show that corrections were received.

NOTE: **Approvals may be required from other Bureaus / Departments for this project. To determine the status of the permitting process for this project contact the Plan Check Status line at (503) 823-7357. Request a status by Fax and leave a Fax number for a quicker response.**

Koppers019313

City of Portland
Bureau of Buildings
P.O. Box 8120
Portland, OR 97207-8120
FAX#: 503/823-7692

Application #: BLD98-03756

Date: 12/17/98

SOILS SPECIAL INSPECTIONS

This form shall be signed by the Owner, Engineer or Architect of Record and returned to the Special Inspection Section prior to issuance of the permit.

Please note that a separate structural special inspection form may be required:

Project Name: Remodel Dock and Add Bridge, 754 NW Saint Helens Road

Architect of Record (Firm): J. Cameron McKernan Co. Phone No: 503/232-7211

Engineer of Record (Firm): Same as Above Phone No:

Soils Engineer: Firm: Phone No:

1/4 Section: 2221 Lot: Block: Subdivision:

The following special inspections shall be performed according to the State Building Code and City of Portland Administrative Rules:

- Pile foundation installation.
- Foundation subgrade preparation.

The owner hereby agrees to employ the above engineer for the above-noted special inspections.

Signature of Owner/Architect/or Engineer:

Print Name: Phone No:

Firm: Phone No:

RECEIVED

DEC 2 1 1998

KOPPERS INDS, INC.
PORTLAND OR

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
December 17, 1998

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

COPY

Attention: Douglas Morgan, P. E.

Subject: Koppers Industries, Inc. – Liquid Pitch Unloading Facility
Northwest Natural Gas – 754 NW St. Helens Road
Pier Modification

Reference: 1. Commercial Building Permit Application No. **BLD98-03756**
2. Site Development Plan Examination Sheet, Review Date December 17, 1998

Enclosure:

SOILS SPECIAL INSPECTIONS FORM dated 12/17/98

Gentlemen:

We submit the completed Soils Special Inspections Form as required by the Referenced Site Development Plan Examination Sheet Item No. 1.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: Cameron McKernan

J. Cameron McKernan, President

cc: Koppers Industries, Inc.
Amos Kamerer
Bill Meisinger

City of Portland
Bureau of Buildings
P.O. Box 8120
Portland, OR 97207-8120
FAX#: 503/823-7692

Application #: BLD98-03756
Date: 12/17/98

SOILS SPECIAL INSPECTIONS

This form shall be signed by the Owner, Engineer or Architect of Record and returned to the Special Inspection Section prior to issuance of the permit.

Please note that a separate structural special inspection form may be required:

Project Name: Remodel Dock and Add Bridge, 754 NW Saint Helens Road

Architect of Record (Firm): J. Cameron McKernan Co. Phone No: 503/232-7211

Engineer of Record (Firm): Same as Above Phone No:

Soils Engineer: Firm: Phone No:

1/4 Section: 2221 Lot: Block: Subdivision:

The following special inspections shall be performed according to the State Building Code and City of Portland Administrative Rules:

- Pile foundation installation.
- Foundation subgrade preparation.

The owner hereby agrees to employ the above engineer for the above-noted special inspections.

Signature of ~~Owner/Architect~~/or Engineer: J. Cameron McKernan

Print Name: J. Cameron McKernan Phone No: (503) 232-7211

Firm: J. CAMERON MCKERNAN COMPANY Phone No: (503) 232-7211

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
December 17, 1998

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

Attention: Douglas Morgan, P. E.

Subject: Koppers Industries, Inc. – Liquid Pitch Unloading Facility
Northwest Natural Gas – 754 NW St. Helens Road
Pier Modification

COPY

Reference: 1. Commercial Building Permit Application No. **BLD98-03756**
2. Site Development Plan Examination Sheet, Review Date December 17, 1998

Enclosure:

PLAN NO.	REV.	TITLE
97010-40	1	PILING PLAN

Gentlemen:

In response to your Site Development Plan Examination Sheet Item 2 we offer the following:

There are 5 pilings on this project:

One round wood timber piling supplementing two existing similar pilings to support the modified walkway between the service platform and the bridge. The design calculations show a required bearing capacity of 16.2 S.T. The piling is specified to be 100 feet long. At this location we expect driving to result in about 60 feet penetration. Previous wood pilings driven at this location developed 30 S. T. bearing capacity.

Four steel HP 14 x 73.0 pilings supporting the new bridge. The design calculations show a required bearing capacity of 23.8 S. T. each piling. The pilings are specified to be driven to a tip elevation of –90 feet. This will result in a penetration of about 90 feet. It is not known if bedrock will be encountered before reaching this tip elevation. Typically in similar soils, an HP 14 x 73 with 90 feet of penetration will develop 70 S. T. bearing capacity, well in excess of the required minimum.

Cont'd . . .

File No. P97-10
December 17, 1998

City of Portland, Oregon Bureau of Buildings
Attention: Douglas Morgan, P. E.
Commercial Building Permit Application No. **BLD98-03756**

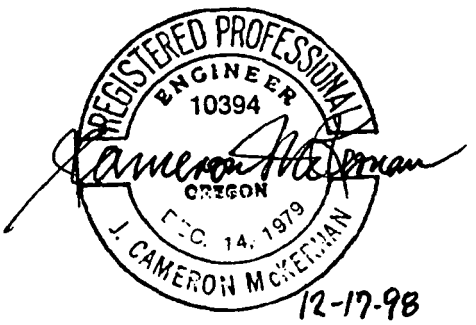
COPY

In any event, a driving log will be kept of the pile driving. After driving, the load bearing capability of the driven piling will be evaluated using the simple Engineering News Record formula. It is anticipated that the driven piles will easily exceed the required load capacity.

The revised drawing is being submitted showing the added pile driving information requested.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.



12-17-98

RENEWAL: 12-31-98

By: J. Cameron McKernan, President

cc: Koppers Industries, Inc.
Amos Kamerer
Bill Meisinger

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
December 17, 1998

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

COPY

Attention: Douglas Morgan, P. E.

Subject: Koppers Industries, Inc. – Liquid Pitch Unloading Facility
Northwest Natural Gas – 754 NW St. Helens Road
Pier Modification

Reference: 1. Commercial Building Permit Application No. **BLD98-03756**
2. Site Development Plan Examination Sheet, Review Date December 17, 1998

Enclosures:

1. Copy of United States Army Corps of Engineers' Permit ID NO: 97903

2. Copy of Oregon Division of State Lands letter dated July 24, 1998 stating " . . . a State Removal/Fill Permit is not required."

Gentlemen:

We submit the enclosures as required by the Referenced Site Development Plan Examination Sheet Item No. 3.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: Cameron McKernan

J. Cameron McKernan, President

cc: Koppers Industries, Inc.
Amos Kamerer
Bill Meisinger

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
December 15, 1998

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. – Liquid Pitch Unloading Facility
Northwest Natural Gas – 754 NW St. Helens Road
Pier Modification

Reference: 1. Commercial Building Permit Application No. **BLD98-03756**
2. Structural Plan Examination Sheet, Review Date DEC 14, 1998

Enclosure:

STRUCTURAL SPECIAL INSPECTION AND OBSERVATION PROGRAM FORM

Gentlemen:

We submit the completed Structural Special Inspection and Observation Form as required by the Referenced Structural Plan Examination Sheet.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: Cameron McKernan

J. Cameron McKernan, President

cc: Koppers Industries, Inc.
Amos Kamerer
Bill Meisinger

RECEIVED

DEC 16 1998

KOPPERS INDS, INC.
PORTLAND OR

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS
P.O. Box 8120
Portland, OR 97207
FAX # 823-5434

STRUCTURAL SPECIAL INSPECTION AND OBSERVATION PROGRAM

APPLICATION # BLD98-03756

Date DEC 14,1998

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: Koppers Pitch Unloading Facility

Architect of Record (Firm) Phone #

Engineer of Record (Firm) J. Cameron Mckernan Company Phone # 232-7211

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.

[ ] Anchors - Adhesive	[ ] Reinforced Concrete	[X] Structural Steel	[ ] Wood 5-Story Constr
[ ] Anchors - Cast-in-place	[ ] Prestressed Concrete	[ ] Str. Silicone Glazing	[ ] Fireproofing
[ ] Anchors - Expansion	[ ] Shotcrete	[ ] Masonry f'm =	
[ ] Special Cases:			

B. Indicate the special inspector or approved testing agency to perform the special inspections noted in Part A above.

J. CAMERON McKERNAN COMPANY

C. [X] Structural Observation by Engineer of Record. Indicate stages at which structural observation is to occur:

* Completion of shop sub assemblies prior to galvanizing.

* Setting & connection of sections at site.

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 S. Kamerer Phone No. (503) 285-2831

Firm Koppers Industries Date 12-15-98

Michael R. Walkiewicz P.E.

Structural Plans Examiner

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
December 2, 1998

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

COPY

Attention: Irwin Jones, Plans Examiner

Subject: Koppers Industries, Inc. – Liquid Pitch Unloading Facility
Northwest Natural Gas – 754 NW St. Helens Road
Pier Modification

Reference: 1. Commercial Building Permit Application No. BLD98-03756
2. Zoning Checksheet dated November 27, 1998

Enclosure (4 copies):

Plan No. 97010-41, Rev. 0, "ROADWAY & PARKING AREA ARRANGEMENT"

Gentlemen:

Four copies of the enclosed plan are submitted in support of the Referenced Building Permit Application No. BLD98-03756. This plan shows the landscape information requested in the Referenced Zoning Checksheet.

Very truly yours,

J. CAMERON MCKERNAN COMPANY
Engineer of Record & Agent for
Koppers Industries, Inc.

By: Cameron McKernan

J. Cameron McKernan, President

Cc: Koppers Industries, Inc.
Amos Kamerer

CITY OF PORTLAND
BUREAU OF PLANNING
1st FLOOR, PERMIT CENTER
1120 SW FIFTH AVENUE
PORTLAND, OR 97204-1966
(503) 823-PLAN (823-7526)

ZONING CHECKSHEET

To: **Cameron McKernan**
Address: **825 NE 20th Ave., Ste 100**
Portland, OR 97232

Phone No: **232-7211**
Fax No: **232-7658**

Plan Check No: **BLD98-03756**

Received NOV 30 1998

Date: **November 27, 1998**

COPY

This Checksheet for: **Northwest Natural Gas - 754 NW St. Helen's Rd.**

The following items are not in compliance with the zoning code requirements as noted:

SECTION	ITEM
LUR97-00666GW	All four sets of plans submitted , must include the approved landscape plan and specifications. (see attached)
Section 33.248.040	Include in the landscape plan information which describes the proposed method of irrigation.
	Once the changes have been made to all four sets of plans, please call me at 823-7835. I will pull the plans, verify compliance and stamp each set. Thank you.

SMF

Planning Representative: Sheila Frugoli, Senior Planner

Koppers019324

RECEIVED
DEC - 3 1998
KOPPERS INDS. INC.
PORTLAND OR

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
October 22, 1998

Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon 97210

Attention: Amos Kamerer

Subject: Portland Facility Pitch Ship Terminal
Pier Modification
Commercial Building Permit Application

Enclosures:
1. Copy of McKernan letter to City of Portland, Bureau of Buildings and a copy of the all the listed enclosures
2. Copy of Commercial Building Permit Application annotated by City of Portland Reviewer and indicating acceptance of application

Gentlemen:

We send a copy of the Commercial Building Permit Application and the supporting documents we submitted to the City of Portland, Bureau of Buildings for the Pier Modifications for your information.

We also send a copy of the "accepted" application dated 10-16-98. Please note the reviewer's comment: "Advised – soils erosion reqm'ts may be req'd by B. E. S." (B. E. S. = Bureau of Environmental Services.)

Very truly yours,

J. CAMERON MCKERNAN COMPANY

By: Cameron McKernan

J. Cameron McKernan, President

Commercial, Industrial, and Multi-Family Submittal Request
Commercial Submittal Requirements

10-16-98 # BLD98-03756

Please indicate below the items being submitted for review. ***Please refer to the "Summary of Submittal Requirements Commercial, Industrial and Multi-Family Dwellings" handout for a comprehensive list of requirements. Failure to provide ar of the required information at time of submittal will be cause for rejection of your application.*** Applications will not be processed c routed for review until all plan review/processing fees have been paid.

Yes	N/A		Office Use Only ◇ Office Use Only ◇ Office Use Only	Accepte
	X	**Final Plat Approval:** Projects involving a land division or new subdivision are required to have final plat		
	X	**Appeals:** Have appeals been granted for this project? ~~YES~~ NO If Yes, copies must be attached		
	X	**Phased Permits:** Are you requesting phased permitting at time of permit submittal? ~~YES~~ ~~NO~~ NO		
✓		**Main Permit:** Four (4) complete sets of construction documents (design drawings for phased permits) that include:		WK
X		• **Site Plan:** A 100% complete site plan showing all related improvements		
X		• **Foundation Plans:** A foundation plan including all dimensions, construction details and references		
X		• **Elevations:** Building elevations		
X		• **Floor Plans:** Floor plans (for phased permits see handout)		
X		• **Sections:** Building sections (for phased permits see handout)		
X		• **Mechanical, Electrical & Plumbing drawings:** (see handout) LIGHTING UNDER MAIN TANK & PIPELINE PERMIT, FIRE LINE ONLY		
X		• **Specifications:** Two (2) sets of complete construction specifications (for phased permits see handout)		
X		• **Structural Calculations:** one (1) set		WK
	X	• **Soils Report:** Two (2) sets of soils reports		

If you are also requesting a phased permit at the time of permit submittal, you must also provide

Yes	N/A		Office Use Only ◇ Office Use Only	Accepted
		Partial Permit: Four (4) complete sets of construction documents for the scope of the partial permit (usually "Grading/Shoring Only", Structural Only", or "Foundation Only" permits) that include:		
		• **Site Plan:** A 100% complete site plan showing all related improvements		
		• **Construction Plans:** 100% construction plans showing all work to be done under partial permit		
		• **Mechanical, Electrical, Plumbing Drawings:** (see handout)		
		• **Specifications:** Two (2) sets of construction specifications for work to be covered under the partial permit		
		• **Structural Calculations:** One set of complete calculations for the work covered under the partial permit		
		• **Soils Reports:** Two (2) sets of soils reports		

For Official Use Only

Applicant's Signature [signature] A.S. Kamenec Date 10/15/98

The above referenced submittal has been reviewed for adequacy and is ☒ accepted for submission or ☐ rejected. If it is rejected, the reasons indicated above need to be addressed before resubmittal. A copy of this review has been given to the applicant and its contents reviewed with them. ☐

Signature of Reviewer [signature] Date 10-16-98

Reviewer Comments ADVISED - SOILS EROSION REQM'TS MAY BE REQ'D. BY BES.

DA F:\Forms\PAC\Submittal Requirements Comm'l 7/10/98

Date: 10-16-98 Application #: [3LD98-03756

City of Portland, Bureau of Buildings, 503-823-7310, TDD: 503-823-6868

Multi-Family/Commercial Building Permit Application

Please provide the following information:

Project Address: 7540 NW St. Helens Road	Project Valuation: $250,000
Legal Description: Tax Lots 111, 42, 129 & 130 Map 2221	Tax Account #: [redacted]
Applicant's Name: Amos Kamerer	☎ Phone #: (503) 286-3681
Company Name: Koppers Industries, Inc.	☎ Fax #: (503) 285-2831
Address: 1950 Koppers Building, 436 7th Avenue, Pittsburgh, PA 15219	
Contractor's Name: Not available - will bid	☎ Phone #:
Address:	☎ Fax #:

Which of the following best describes the proposed work?

COPY

☒ Addition
How many square feet? N/A
Bridge to shore

☐ Demolish structure

☐ Fire Damage Repair

☐ Move a structure
From what address? _____

☐ Alteration
If change of use or occupancy:
From use/occupancy _____
To use/occupancy _____
Seismic Upgrade: Yes ____ No ____

☐ New Construction
How many square feet? _____
How many stories? _____
Number of structures _____

Briefly describe the proposed work *(include location):* Modification of existing pier. Replace existing 4' wide walkway with 8' wide walkway. Add new bridge from pier to shore.

Which of the following best describes the use of the structure(s)? *Check all that are applicable.*

☐ Apartments/Condos	☐ Education	☐ Institutional	☒ Miscellaneous *(deck, driveway, fence, retaining wall, tank, tower, site work)*
☐ Assembly	☒ Factory/Industrial	☐ Mercantile	
☐ Assisted Care Facility	☐ Hazardous	☐ Row House *(3 or more)*	
☐ Business	☐ Hotel	☐ Storage	

Existing Structure:
What is the square footage of the existing structure? _____
How many stories is the existing structure? _____

Plumbing Fixtures:
How many new plumbing fixtures? _____

For Dwelling Units:
How many dwelling units are existing? _____
How many dwelling units will be demolished? _____
How many dwelling units will be added? _____

Floodplain:
Is the property in the floodplain?
Yes X No ____

Have any appeals been requested or approved for this project?
Yes ____ No X *If yes, please attach a copy.*

Have any Land Use Reviews been requested or approved for this project?
Yes X No ____ *If yes, please attach a copy.*

Appcom3.wpd/ 6-1-98

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
October 16, 1998

City of Portland, Oregon
Bureau of Buildings
1120 SW 5th Avenue, Room 930
Portland, Oregon 97204-1992

Attention: Irwin Jones, Plans Examiner

COPY

Subject: Koppers Industries, Inc. – Pier Modification
Commercial Building Permit Application

Enclosures:

1. Commercial Building Permit Application – Koppers Industries, Inc. (ORIGINAL)
2. Copy of Approved Land Use Review (ONE COPY)
3. Specification – Modification of Pier for Liquid Pitch Unloading (TWO COPIES)
4. Plans listed in Specification (Page 4 of 9) (FOUR COPIES)
5. Calculations: Pier Modifications – Walkway & Bridge (ONE COPY)
6. Material Safety Data Sheet: Carbon Pitch Liquid dated 6/95, 6 pages (TWO COPIES)
7. Material Safety Data Sheet: Caloria HT 43 dated 02/22/95, 7 pages (TWO COPIES)

Gentlemen:

The enclosed application and supporting documents are submitted for your review and approval.

As we noted in our pre-application meeting last week, the pier modification is part of a larger project to install a new 2,000,000 gallon coal tar pitch storage tank and ship unloading piping.

The coal tar pitch piping is heated by piping "traces." The heating medium is a "hot oil" known as CALORIA HT 43. Copies of the Material Safety Data Sheets for coal tar pitch and the CALORIA HT 43 are submitted for your information.

Cont'd . . .

File No. P97-10
October 16, 1998

City of Portland, Oregon (Bureau of Buildings)
Koppers Industries, Inc. – Pier Modification
Commercial Building Permit Application

COPY

The "in-water" work of the pier modification can only be done during periods permitted by the Oregon Department of Fish and Wildlife in order to protect fish-runs. The "open" periods for in-water work are July 1 to October 31 and December 1 to January 31. Koppers Industries plans to have the facility in operation by late summer 1999. The pier modifications must be completed by January 31, 1999 in order to support this completion date.

Thank you for your time and courtesy during our pre-submittal meeting last week. The meeting was very helpful to us.

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.
Amos Kamerer

5.0 PLANS (continued)

The Contractor is to review and check all plans contained in this specification. This check shall include verification of the suitability of the arrangement and dimensions shown on the plans for construction. The Owner is not responsible for unsuitable or incorrect dimensions on the plans or sketches that can be determined from proper checking and layout. The Contractor shall notify the Owner of any errors or incompatibility found by the Contractor.

5.1.1 Plan List

PLAN NO.	REV.	TITLE
97010-21		SITE PLAN
97010-22		FIRE & SAFETY PLAN
97010-22A		FIRE MAINS & HYDRANTS (EXISTING)
97010-23		WALKWAY PIER TO DOLPHIN – ARRANGEMENT
97010-24		WALKWAY PIER TO DOLPHIN – STRUCTURAL SECTIONS
97010-25		WALKWAY PIER TO DOLPHIN – SEGMENT W1 ASSEMBLY
97010-26		WALKWAY PIER TO DOLPHIN – SEGMENT W2 ASSEMBLY
97010-27		WALKWAY PIER TO DOLPHIN – SEGMENT W3 ASSEMBLY
97010-28		WALKWAY PIER TO DOLPHIN – SEGMENT W4 ASSEMBLY
97010-29		BRIDGE TO SHORE – ARRANGEMENT
97010-30		BRIDGE TO SHORE – STRUCTURAL SECTIONS
97010-31		BRIDGE TO SHORE – SEGMENT B1 ASSEMBLY
97010-32		BRIDGE TO SHORE – SEGMENT B2 ASSEMBLY
97010-33		BRIDGE TO SHORE – SEGMENT B3 ASSEMBLY
97010-34		BRIDGE TO SHORE – SEGMENT B4 ASSEMBLY
97010-35		BRIDGE TO SHORE – SEGMENT B5 ASSEMBLY
97010-36		BRIDGE TO SHORE – SHORE FOOTING
97010-37		WALKWAY & BRIDGE: MISCELLANEOUS DETAILS
97010-38		NOT USED
97010-39		NOT USED
97010-40		PILING PLAN

END OF PLAN LIST

COPY

Koppers019331

Date: Application #:

City of Portland, Bureau of Buildings, 503-823-7310, TDD: 503-823-6868

Multi-Family/Commercial Building Permit Application

Please provide the following information:

Project Address: 7540 NW St. Helens Road	Project Valuation: $250,000
Legal Description: Tax Lots 111, 42, 129 & 130 Map 2221	Tax Account #: [redacted]
Applicant's Name: Amos Kamerer	☎ Phone #: (503) 286-3681
Company Name: Koppers Industries, Inc.	☎ Fax #: (503) 285-2831
Address: 1950 Koppers Building, 436 7th Avenue, Pittsburgh, PA 15219	
Contractor's Name: Not available - will bid	☎ Phone #:
Address:	☎ Fax #:

Which of the following best describes the proposed work?

☒ Addition
How many square feet? N/A
Bridge to shore

☐ Demolish structure

☐ Fire Damage Repair

☐ Move a structure
From what address? _____

☐ Alteration
If change of use or occupancy:
From use/occupancy _____
To use/occupancy _____
Seismic Upgrade: Yes ____ No ____

☐ New Construction
How many square feet? _____
How many stories? _____
Number of structures _____

***Briefly describe the proposed work** (include location):* Modification of existing pier. Replace existing 4' wide walkway with 8' wide walkway. Add new bridge from pier to shore.

Which of the following best describes the use of the structure(s)? *Check all that are applicable.*

☐ Apartments/Condos	☐ Education	☐ Institutional	☒ Miscellaneous *(deck, driveway, fence, retaining wall, tank, tower, site work)*
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☐ Assisted Care Facility	☐ Hazardous	☐ Row House *(3 or more)*	
☐ Business	☐ Hotel	☐ Storage	

Existing Structure:
What is the square footage of the existing structure? _____
How many stories is the existing structure? _____

Plumbing Fixtures:
How many new plumbing fixtures? _____

For Dwelling Units:
How many dwelling units are existing? _____
How many dwelling units will be demolished? _____
How many dwelling units will be added? _____

Floodplain:
Is the property in the floodplain?
Yes X No ____

Have any appeals been requested or approved for this project?
Yes ____ No X *If yes, please attach a copy.*

Have any Land Use Reviews been requested or approved for this project?
Yes X No ____ *If yes, please attach a copy.*

Appcom3.wpd/ 6-1-98

Commercial, Industrial, and Multi-Family Submittal Request
Commercial Submittal Requirements

Please indicate below the items being submitted for review. ***Please refer to the "Summary of Submittal Requirement Commercial, Industrial and Multi-Family Dwellings" handout for a comprehensive list of requirements.*** *Failure to provide a of the required information at time of submittal will be cause for rejection of your application.* Applications will not be processed routed for review until all plan review/processing fees have been paid.

Yes	N/A		Accept
		Final Plat Approval: Projects involving a land division or new subdivision are required to have final plat	
		Appeals: Have appeals been granted for this project? ~~YES~~ NO If Yes, copies must be attached	
		Phased Permits: Are you requesting phased permitting at time of permit submittal? ~~YES~~ ~~NO~~ No	
		Main Permit: Four (4) complete sets of construction documents (design drawings for phased permits) that include:	
X		• **Site Plan:** A 100% complete site plan showing all related improvements	
X		• **Foundation Plans:** A foundation plan including all dimensions, construction details and references	
X		• **Elevations:** Building elevations	
X		• **Floor Plans:** Floor plans (for phased permits see handout)	
X		• **Sections:** Building sections (for phased permits see handout)	
		• **Mechanical, Electrical & Plumbing drawings:** (see handout)	
X		• **Specifications:** Two (2) sets of complete construction specifications (for phased permits see handout)	
X		• **Structural Calculations:** one (1) set	
		• **Soils Report:** Two (2) sets of soils reports	

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If you are also requesting a phased permit at the time of permit submittal, you must also provide

Yes	N/A		Accepte
		Partial Permit: Four (4) complete sets of construction documents for the scope of the partial permit (usually "Grading/Shoring Only", Structural Only", or "Foundation Only" permits) that include:	
		• **Site Plan:** A 100% complete site plan showing all related improvements	
		• **Construction Plans:** 100% construction plans showing all work to be done under partial permit	
		• **Mechanical, Electrical, Plumbing Drawings:** (see handout)	
		• **Specifications:** Two (2) sets of construction specifications for work to be covered under the partial permit	
		• **Structural Calculations:** One set of complete calculations for the work covered under the partial permit	
		• **Soils Reports:** Two (2) sets of soils reports	

Office Use Only ◊ Office Use Only

For Official Use Only

pplicant's Signature [signature] A.S. Kamenec Date 10/15/98

he above referenced submittal has been reviewed for adequacy and is ☐ accepted for submission or ☐ rejected. If it is rejected, the reasons indicated abov ed to be addressed before resubmittal. A copy of this review has been given to the applicant and its contents reviewed with them. ☐

ignature of Reviewer _____ Date _____

eviewer Comments _____

DA F:\Forms\PAC\Submittal Requirements Comm'l 7/10/9

CITY OF
PORTLAND, OREGON
BUREAU OF PLANNING

Charlie Hales, Commissioner
David C. Knowles, Director
1120 S.W. 5th, Room 1002
Portland, Oregon 97204-1966
Telephone: (503) 823-7700
FAX (503) 823-7800

NOTICE OF A DECISION ON A PROPOSAL IN YOUR NEIGHBORHOOD

The Planning Bureau has approved a proposal in your neighborhood. The reasons for our decision are given below. If you disagree with the decision, you may appeal it and request a public hearing. Information on how to do this is at the end of this report. If you have any questions or need more information, please call the staff planner, Steve Gerber, at 823-7854.

ADMINISTRATIVE FINDINGS AND DECISION ON GREENWAY
FILE NUMBER: LUR 97-00666 GW (KOPPERS)

I. GENERAL INFORMATION

Applicants: Northwest Natural Gas Co. (owner)
220 NW 2nd Avenue
Portland, OR 97209
Attn: Ron Obitz

Received AUG 18 1997

Representatives: Koppers Industries, Inc. (lease holder)
1950 Koppers Bldg.
436 7th Avenue
Pittsburgh, PA 15219
Local Contact: Amos Kamerer

J. Cameron McKernon (**CONTACT** and agent for lease holder)
J. Cameron McKernon Company
825 NE 20th Avenue, #110
Portland, OR 97232

Location: 7540 NW St. Helens Road

Legal Description: Tax Lots 42, 111, 129 & 130, Section 12, 1N, 1W

Tax Account #(s): [redacted]

Quarter Section: 2221

Neighborhood: Northwest Industrial, contact Jeff Knapp at 224-7535.

Neighborhood within 400 feet of the site: Linnton Community Assn., contact Tom Wilson at 286-9688.

District Neighborhood Coalition: Neighbors West/Northwest, David Allred at 223-3331.

Zoning/Designations: IH, Heavy Industrial/Industrial Sanctuary
i, River Industrial Greenway Overlay
s, Scenic Resource Overlay

Land Use Review: Greenway

Proposal: Modification of an existing marine terminal pier to accommodate a new function; pipeline transfer of liquid coal tar pitch from ships to new storage tanks for distribution from this point. An additional gangway (bridge) will be constructed from shore to the existing pier for both personnel and the coal tar pitch pipeline. An existing walkway on the pier will be widened. The pipeline will feed directly to three new 70-foot diameter by 50-foot high storage tanks, located in the southeastern corner of the site, near NW St. Helens Road and nearly one-quarter mile from the riverbank. A 24-inch pipeline will extend from the pier to the new storage tanks. An approximately 60-foot by 25-foot area will be landscaped where the new gangway penetrates the Greenway.

To be approved, this proposal must be in compliance with the approval criteria of Section 33.440.350 for Greenway reviews. All construction must be in compliance with the development standards of the Heavy Industrial zone (Chapter 33.140) and the Scenic Resource overlay zone (Chapter 33.480). All non residential uses must also comply with the approval criteria of Chapter 33.262, Off-Site Impacts.

II. ANALYSIS

Site and Vicinity: The Koppers facility is a portion of a site owned by the Northwest Natural Gas Company. The site is shared by at least one other lessor. Use of the site is for storage and distribution of petroleum or petroleum-like products, such as the coal tar pitch that Koppers stores and distributes. Accessed from the river and St. Helens Road, it is dominated by storage tanks, but also includes a number of small office or utility buildings and larger warehouse buildings. A pier extends into the river, equipped with a pipeline for off-loading of ships.

The riverbank and major portions of the upland areas are not developed and are covered by vegetation, mostly ground cover (grasses), but including shrubs and trees. Developed portions of the site are either blacktopped or graveled.

Zoning: The IH, Heavy Industrial, zone is one of two zones that implement the Industrial Sanctuary designation of the Comprehensive Plan. The IH zone provides siting for industries, including those not desirable in other zones due to their objectionable impacts or appearance. This zone restricts other uses to prevent potential conflicts and to preserve land for industry.

The i, River Industrial Greenway Overlay Zone, encourages and promotes the development of river-dependent and river-related industries which strengthen the economic viability of Portland as a marine shipping and industrial harbor, while preserving and enhancing the riparian habitat and providing public access where practical. The existing use is appropriate within the River Industrial overlay zone, because it is both industrial and river-dependent.

The s, Scenic Resource , overlay zone was implemented to protect Portland's significant scenic resources, as identified in the Scenic Resources Protection Plan. In this instance, a view corridor (VB 09-15), which limits the height of structures to no more than 15 or 30 feet within the southwestern portion of this site, has been established which may affect the proposed development of new storage tanks.

Land Use History: Several years have passed since the last improvements were applied for on this site. Conditional uses for fills and/or development of storage facilities (tanks) were reviewed and approved in Files No. CU 78-66, CU 27-73, and CU 58-73. Both conditional use and greenway were review considerations for improvements in File No. CU 82-79.

Agency Review: The Bureaus of Transportation Engineering, Traffic Management, Transportation Planning, and Environmental Services (Exhibits E-1 through E-4) have noted no concerns or objections.

Neighborhood Review: Neither the neighborhood association, nor neighboring property owners have responded to the notice of July 9, 1997.

A. ZONING CODE APPROVAL CRITERIA

33.440.350—Approval Criteria:

A. **Generally**: The approval criteria for a greenway review have been divided by location or situation. The divisions are not exclusive; a proposal must comply with all of the approval criteria which apply to the site. Requests for a greenway review will be approved if the review body finds that the applicant has shown that all of the appropriate approval criteria are met.

B. **For all Greenway Reviews**: The Willamette Greenway design guidelines must be met for all greenway reviews.

Willamette Greenway Design Guidelines: The city will find the applicant has shown that the Willamette Greenway design guidelines have been met. If an owner can demonstrate to the city's satisfaction that a guideline cannot be met, but that the resulting project will meet the greenway goal and objectives through alternate means, then proposal will be approved. The applicable design guidelines are as follows:

A. Relationship of Structures to the Greenway Setback Area: This guideline calls for complementary design and orientation of structures so that the greenway setback area is enhanced.

Findings: The development proposed in this application includes a new pipeline to the existing dock and three new storage tanks. The storage tanks will be located as far from the river as the site allows. There are existing structures between the proposed tanks and the Greenway Setback area and riverbank, further reducing any impact the storage tanks might have on this area. The storage tanks will continue the existing development pattern of this site.

Also proposed is a new pipeline extending from the storage tanks to the existing dock. This site infrastructure will have impact on the Greenway Setback area only inasmuch as it crosses through the setback to the existing dock. The new pipeline will attach to the dock from the opposite side as an existing pipeline. The design proposed is complementary inasmuch as industrial activities may be. This criterion is met.

B. Public Access: This guideline calls for proper integration of the Greenway Trail into new development, as well as the provision of features such as view points, plazas, or view corridors. Also encouraged is a functional pedestrian circulation system which encourages access to the greenway. Separation and screening from parking, loading, outdoor storage and mechanical equipment is also encouraged.

Findings: The site does not have a Greenway Trail designation. The Greenway Trail designation lies within the St. Helens Road right-of-way. Public access to the trail does not rely on this site. This criterion is not applicable.

C. Natural Riverbank and Riparian Habitat: This applies to situations where the river bank is in a natural state, or has significant wildlife habitat, as determined by the wildlife habitat inventory. This guideline calls for preservation and enhancement of natural banks and areas with riparian habitat.

Findings: The habitat values for this site are low. According to the Lower Willamette River Wildlife Habitat Inventory, Bureau of Planning, 1986, the riverbank, Site 15.1a, is a Rank IV habitat, described as consisting primarily of riprapped banks, docks and wharves. Two upland areas are identified, Sites 15.1b and 15.1c. Most of this site lies within 15.1b, noted as Rank III habitat. This area does offer some habitat, including a small wetland, and wetland and riparian plants.

The storage and distribution that takes place within this site includes potentially flammable products. In response to this concern Section 33.440.230, Landscaping, specifically exempts such sites from all landscaping if there is any concern on the part of the Fire Marshal that a safety hazard could be created.

No disturbance of the upland area is proposed, the existing habitat there will not be affected. Where the new pipeline penetrates the Greenway Setback area, the applicant proposes an approximately 25-foot by 50-foot area of native plantings, including: Oregon Grape, Cottonwood Trees, Snowberry Bushes, and native grasses. The Fire Bureau has expressed no concerns regarding the location, type or amount of the proposed additional vegetative materials. While the proposed riparian materials do not result in full compliance with the development standards of Subsection 33.440.230, B, Landscaping Standards, they will enhance the habitat value and aesthetics of the site. Additionally, under Subsection 33.440.230, A, Required Landscaping, all required landscaping may be waived "where it would significantly interfere with a river-dependent or river-related use or development, or where the Fire Marshal finds that it would pose a safety hazard.

The applicant has found a compromise position, neither significantly increasing the hazards of fire fighting nor interfering with the site operations, while at the same time providing some measure of aesthetic and habitat enhancement. This criterion is met.

D. Riverbank Stabilization Treatments: Promotes bank treatments for upland developments that conserve riparian habitat to the maximum extent practical..

Findings: The identified uplands with wetland and riparian habitat is not disturbed as a result of this proposal. The proposed pipeline and gangway will cross over the Greenway Setback area and the riverbank; however, the proposal includes a 1,250 square foot area of native plants that will enhance the existing poor habitat. This criterion is met.

E. Landscape Treatments: This guideline calls for landscaping treatment which creates a balance between the needs of both human and wildlife populations.

Findings: Special recognition is given to industrial uses which include flammable materials in recognition of the potential for making fire fighting more hazardous than is necessary. In keeping with this consideration, landscaping can be (should be) reduced or eliminated where such materials are prevalent; changing the balance point between human and wildlife needs. The applicant has found a compromise position, neither significantly increasing the hazards of fire fighting nor interfering with the site operations, while at the same time providing some measure of aesthetic and habitat enhancement. This criterion is met.

F. Alignment of Greenway Trail: This guideline gives direction in the proper alignment of the greenway trail. It calls for consideration of habitat protection, the physical features of the site and the necessity of maintaining year-round use of the trail.

Findings: There is no Greenway Trail or Greenway Trail designation on this site, this criterion is not applicable.

G. Viewpoints: Guidance is provided in design and types of facilities that are important for the development of viewpoints, as required at specific locations.

Findings: No viewpoints are identified for this section of the river. This criterion is not applicable.

H. View Corridors: Guidance in protecting view corridors is provided.

Findings: View Corridor VB 09-15 affects development height limits on the southwest corner of this site. The applicant has taken special care to provide information showing that the proposed development will not impinge on this view corridor (Exhibit C-3). This criterion is met.

C. **River frontage lots in the River Industrial Zone:** In the River Industrial Zone, uses that are not river-dependent or river-related may locate on river-frontage lots when the site is found to be unsuitable for river-dependent or river-related uses. Considerations include such constraints as the size or dimensions of the site, distance or isolation from other river-dependent or river-related uses, and inadequate river access for river-dependent uses.

Findings: The use of this site is river-dependent, relying on ship-borne materials. This criterion is met.

D. **Development within the River Natural Zone:** The applicant must show that the proposed development, excavation, or fill within the River Natural zone will not have significant detrimental environmental impacts on the wildlife, wildlife habitat, and scenic qualities of the lands zoned River Natural. The criteria applies to the construction and long-range impacts of the proposal, and to any proposed mitigation measures. Excavations and fills are prohibited except in conjunction with approved development or for the purpose of wildlife habitat enhancement, riverbank enhancement, or mitigating significant riverbank erosion.

E. Development on land within 50 feet of the River Natural Zone: The applicant must show that the proposed development or fill on land within 50 feet of the River Natural zone will not have a significant detrimental environmental impact on the land in the River Natural zone.

Findings: Criteria D and E are not applicable. This site does not include, nor does it lie within 50 feet of the River Natural zone.

F. Development within the Greenway Setback. The applicant must show that the proposed development or fill within the greenway setback will not have a significant detrimental impact on the Rank I and II wildlife habitat areas on the riverbank.

Findings: No Rank I or II wildlife habitat has been identified on this site. The Lower Willamette River Wildlife Habitat Inventory, Bureau of Planning, 1986, identifies three separate sites affected by this development: Site 15.1a, the riverbank, is a Rank IV habitat; Site 15.1b, upland area, is a Rank III habitat; and Site 15.1c, also an upland area, is a Rank IV site. This criterion is met.

G. Development Riverward of the Greenway Setback. The applicant must show that the proposed development or fill riverward of the greenway setback will comply with all of the following criteria:

1. The proposal will not result in the significant loss of biological productivity in the river;

2. The riverbank will be protected from wave and wake damage;

3. The proposal will not:

   a. Restrict boat access to adjacent properties;

   b. Interfere with the commercial navigational use of the river, including transiting, turning, passing, and berthing movements;

   c. Interfere with fishing use of the river;

   d. Significantly add to recreational boating congestion;

4. The request will not significantly interfere with beaches that are open to the public.

Findings: No development or disturbance of the water environment will occur, nor is a significant area of shadow upon the water created by the planned pipeline and gangway. The existing dock and riprap protect the riverbank from wave and wake damage. The location of the proposed pipeline and gangway, between the riverbank and the existing dock, will not interfere with boat access to adjacent properties, nor navigation for commerce or recreation within the river. There are no public beaches near to this site. These criteria are met.

33.262: OFF-SITE IMPACTS

33.262.020 Applying These Regulations

Nonresidential uses in all zones which cause off-site impacts on uses in the R, C, and OS zones are required to meet the standards of this chapter. Exempted equipment and facilities are stated in 33.262.030 below.

33.262.030 Exemptions

The off-site impact standards do not apply to machinery, equipment, and facilities which were at the site and in compliance with existing regulations at the effective date of these regulations. Any new or additional machinery, equipment, and facilities must comply with the standards of this chapter. Documentation is the responsibility of the proprietor of the use if there is any question about when the equipment was brought to the site.

33.262.060 Vibration

A. **Vibration standard.** Continuous, frequent, or repetitive vibrations which exceed 0.002g peak may not be produced. In general, this means that a person of normal sensitivities should not be able to feel any vibrations.

B. **Exceptions.** Vibrations from temporary construction and vehicles which leave the site (such as trucks, trains, airplanes and helicopters) are exempt. Vibrations lasting less than 5 minutes per day are also exempt. Vibrations from primarily on-site vehicles and equipment are not exempt.

Findings: There are no operational aspects of the proposed use that would create significant vibrations. This criterion is not applicable.

33.262.070 Odor

A. **Odor standard.** Continuous, frequent, or repetitive odors may not be produced which exceed scentometer No. 0. The odor threshold is the point at which an odor may just be detected. The scentometer reading is based on the number of clean air dilutions required to reduce the odorous air to the threshold level. Scentometer No. 0 is 1 to 2 dilutions of clean air.

B. **Exception.** An odor detected for less than 15 minutes per day is exempt.

Findings: There are no significant odors associated with the storage and distribution operations of this site. Materials on this site will always be in containers or, at most, be in the process of being transferred from one container (ship or storage tank) to another (storage tank or truck). This criterion is not applicable.

33.262.080 Glare

A. **Glare standard.** Glare is illumination caused by all types of lighting and from high temperature processes such as welding or metallurgical refining. Glare may not directly, or indirectly from reflection, cause illumination on other properties in excess of a measurement of 0.5 foot candles of light.

B. **Strobe lights.** Strobe lights visible from another property are not allowed.

Findings: No strobe lights or other glare source is associated with this use. The criterion is not applicable.

B. DEVELOPMENT STANDARDS

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The development standards will have to be met before a building permit is issued.

The standards of Chapter 33.480, Scenic Resource Zone, apply to the southwest portions of this site. View corridor (VB 09-15) establishes height limits north from near the intersection of the cul-de-sacced street at this properties south edge and St. Helens Road. This view corridor establishes 15 and 30-foot height limits on the southwestern portion of this property.

The applicant has responded by amending the location of the tank nearest the view corridor (Exhibit C-3), so that the tank falls outside of the view corridor.

III. CONCLUSIONS

This application is in compliance with the Greenway approval criteria of Section 33.440.350. The proposed structures are in keeping with the existing character of the site. The proposed storage tanks are separated from the riverbank by both distance and intervening existing structures. The pipeline/gangway is a minimal structure to an existing dock. Where the pipeline/gangway passes through the Greenway Setback area, the setback area will be enhanced by removal of non native plant species and replacement with native riparian plant species. Upland areas identified as having marginal habitat (Rank III) will not be disturbed. No impacts will occur on river use.

The proposal is in compliance with Chapter 33.262, Off-Site Impacts. The development proposed will not produce excessive vibrations, odors, glare, or noise.

Compliance with the applicable development standards, including Chapter 33.480, Scenic Resource, overlay zone is assured through changes to the plans, including Exhibit C-3.

IV. ADMINISTRATIVE DECISION

Approval of the proposed development, in accordance with Exhibits C-2 and C-3, dated and approved August 12, 1997.

Staff Planner: Steve Gerber

Decision rendered by: _____ **on August 14, 1997**

Decision filed August 15, 1997 **Decision mailed August 15, 1997**

This application was determined to be complete on July 3, 1997

Appealing this decision. This decision may be appealed to the Hearings Officer, which will hold a public hearing. Appeals must be filed **by 4:30 PM on August 29, 1997** at the Permit Center (First Floor, Portland Building) on the forms provided by the Bureau of Planning. **An appeal fee of $250 will be charged.** The appeal fee will be refunded if the appellant prevails. Neighborhood associations and low-income individuals may qualify for a waiver of the appeal fee. Assistance in filing the appeal and information on fee waivers are available from the Bureau of Planning in the Permit Center. Fee waivers for low income individuals must be approved prior to filing your appeal; please allow 3 working days for fee waiver approval. Fee waivers for neighborhood associations require a vote of the authorized body of your association. Please see appeal form for additional information.

You may review the file on this case at our office on the 10th floor of the Portland Building, 1120 SW Fifth Avenue; Portland, Oregon.

Attending the hearing. If this decision is appealed, a hearing will be scheduled, and you will be notified of the date and time of the hearing. The decision of the Hearings Officer is final; any further appeal is to the Oregon Land Use Board of Appeals (LUBA) within 21 days of the date of mailing the decision, pursuant to ORS 197.620 and 197.830. Contact LUBA at 306 State Library Building, 250 Winter Street NE, Salem, Oregon 97310 [Telephone: (503) 373-1265] for further information.

Failure to raise an issue by the close of the record at or following the final hearing on this case, in person or by letter, may preclude an appeal to the Land Use Board of Appeals (LUBA) on that issue. Also, if you do not raise an issue with enough specificity to give the Hearings Officer an opportunity to respond to it, that also may preclude an appeal to LUBA on that issue.

Recording the final decision. If this decision is not appealed, it will be final on August 30, 1997. It cannot be recorded before that date, but it must be recorded before the approved use is permitted, any building or development permits are issued, or any changes to the Comprehensive Plan Map or Zoning Map are made. The applicant, builder, or a representative can record the decision by going to the City Auditor's office in City Hall, 1400 SW Fifth Avenue, Room 401; Portland, Oregon. The Auditor will charge a fee and will record this decision with the County Recorder.

Expiration of this approval. This decision expires three years from the date the final decision is rendered unless:
- A building permit has been issued, or
- The approved activity has begun, or
- In situations involving only the creation of lots, the land division has been recorded.

Applying for your permits. A building permit, occupancy permit, or development permit must be obtained before carrying out this project. At the time they apply for a permit, permittees must demonstrate compliance with:
- All conditions imposed here.
- All applicable development standards, unless specifically exempted as part of this land use review.
- All requirements of the building code.
- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations of the city.

EXHIBITS
NOT ATTACHED UNLESS INDICATED

A. Applicant's Statement
   1. Cover Letter
   2. Statements Showing How Proposal Meets Greenway Review Approval Criteria
   3. Supplemental Information for Greenway Review
   4. Cover Letter and Additional Information Related to Storage Tank Location, 7/7/97
B. Zoning Map (attached)
C. Plans
   1. Site Plan
   2. Landscaping Plan and Plant Material List
   3. Revised Site Plan (attached)
   4. Photographic Study of Storage Tank Location
D. Notification information:
   1. Mailed notice
   2. Mailing list
E. Agency Responses:
   1. Bureau of Transportation Engineering
   2. Bureau of Traffic Management
   3. Transportation Planning Section of the Office of Transportation
   4. Bureau of Environmental Services
F. Letters (none)
G. Other (none)

If you have a disability and need accommodations, please call 823-7700 (TDD: 823-6868). Persons requiring a sign language interpreter must call at least 48 hours in advance.

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

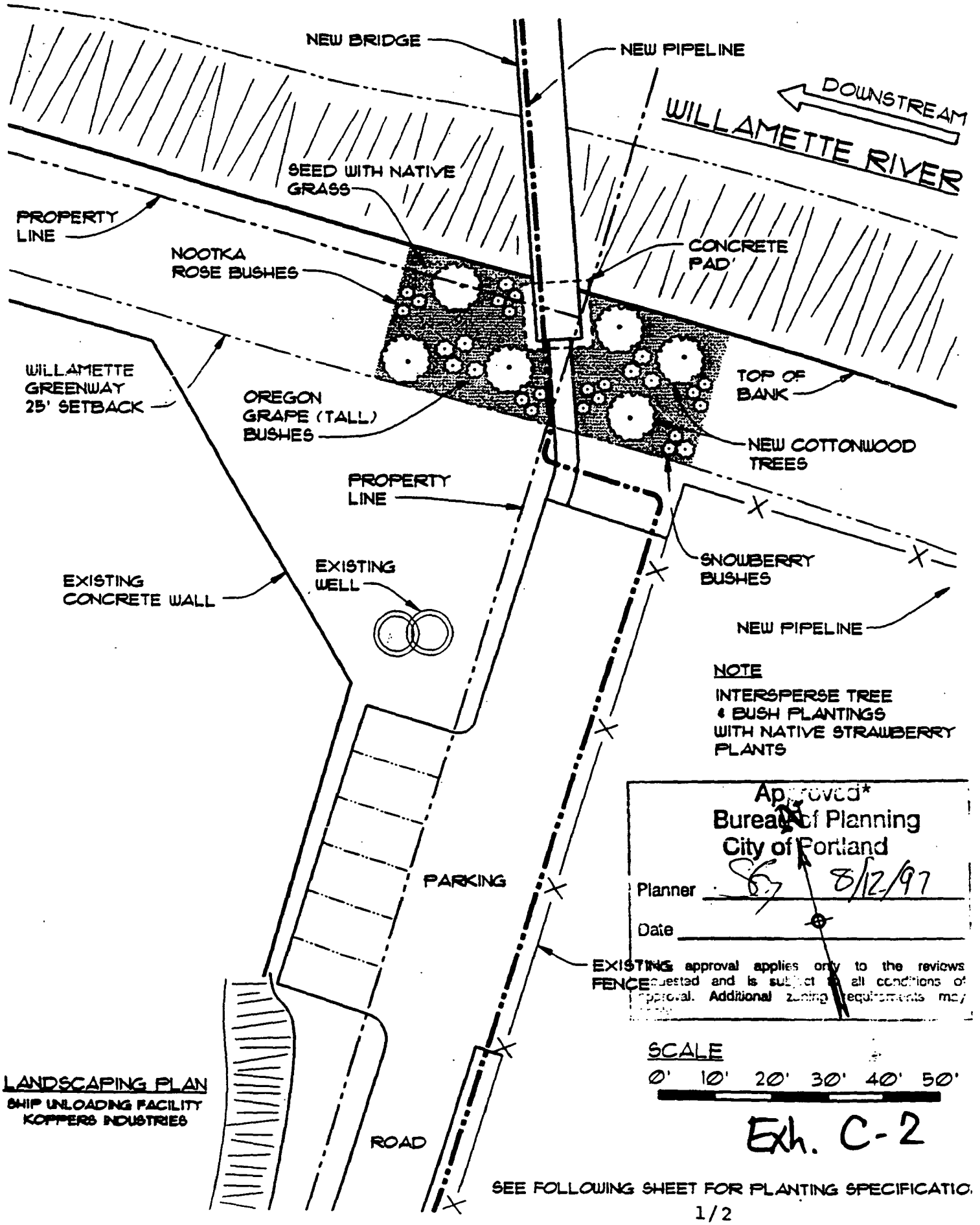
   12 Oregon Grape Bushes - the tall variety

   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.

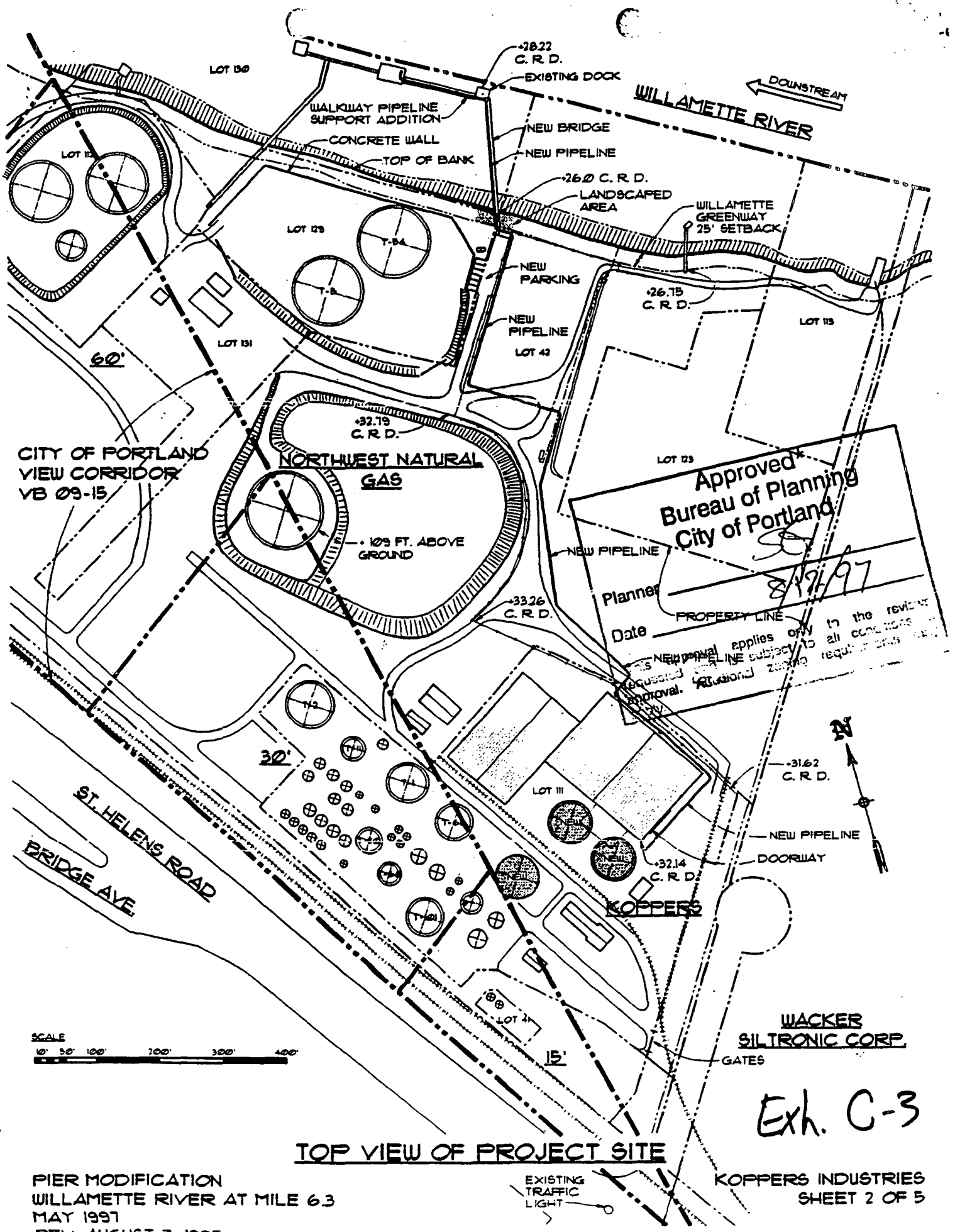
   Seed the area between the bushes, trees, and strawberry plants with native grasses.



LANDSCAPING PLAN
SHIP UNLOADING FACILITY
KOPPERS INDUSTRIES

Exh. C-2

SEE FOLLOWING SHEET FOR PLANTING SPECIFICATIO



Exh. C-3

TOP VIEW OF PROJECT SITE

PIER MODIFICATION
WILLAMETTE RIVER AT MILE 6.3
MAY 1997
REV. AUGUST 7, 1997

KOPPERS INDUSTRIES
SHEET 2 OF 5

CITY OF PORTLAND
BUREAU OF PLANNING
1st FLOOR, PERMIT CENTER
1120 SW FIFTH AVENUE
PORTLAND, OR 97204-1966
(503) 823-PLAN (823-7526)

ZONING CHECKSHEET

To: **Cameron McKernan**
Address: **825 NE 20th Ave., Ste 100**
Portland, OR 97232

Phone No: **232-7211**
Fax No: **232-7658**

Plan Check No: **BLD98-03756**

Received NOV 30 1998

Date: **November 27, 1998**

COPY

This Checksheet for: **Northwest Natural Gas - 754 NW St. Helen's Rd.**

The following items are not in compliance with the zoning code requirements as noted:

SECTION	ITEM
LUR97-00666GW	All four sets of plans submitted , must include the approved landscape plan and specifications. (see attached)
Section 33.248.040	Include in the landscape plan information which describes the proposed method of irrigation.
	Once the changes have been made to all four sets of plans, please call me at 823-7835. I will pull the plans, verify compliance and stamp each set. Thank you.

SMF

Planning Representative: Sheila Frugoli, Senior Planner

Koppers019347

Intended recipient, you are hereby notified that any unauthorized dissemination, distribution or copy of this

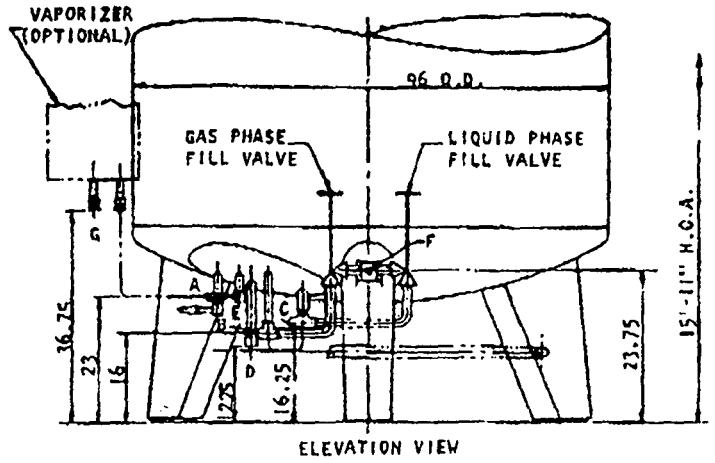
APPROVED
FOR CONDITIONS SHOWN
AND SUBJECT TO FINAL INSPECTION
FIRE MARSHAL
PORTLAND, OREGON
PERMIT # 991735
BY: [signature] DATE 12/22/99

TANK SPECIFICATIONS

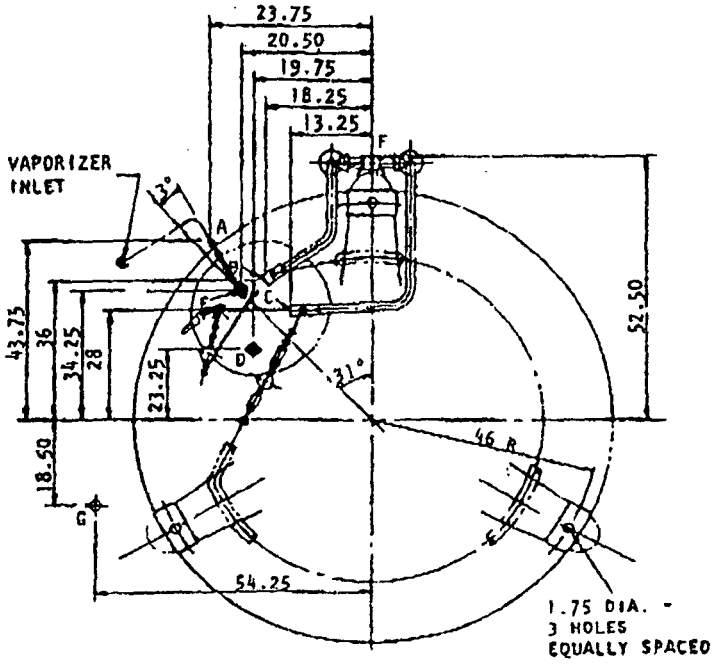
GROSS CONTAINER VOLUME -	3,117 GAL.
NET CAPACITY -	
LIQUID	3,000 GAL.
GASEOUS EQUIVALENT	
OXYGEN	345,200 CU.FT.
NITROGEN	279,200 CU.FT.
ARGON	337,200 CU.FT.
WORKING PRESSURE -	250 PSI
NORMAL EVAPORATION RATE -	
%/DAY (OXYGEN)	0.5%
CU.FT./DAY -	
OXYGEN	1,560
NITROGEN	1,905
ARGON	1,630
NO LOSS HOLDING TIME (75 PSI RISE) -	
OXYGEN	13 DAYS
NITROGEN	11 DAYS
ARGON	12 DAYS
TANK WEIGHT -	
EMPTY -	15,500 LBS
FULL	
OXYGEN	44,100 LBS
NITROGEN	35,800 LBS
ARGON	50,400 LBS

CONNECTION SIZES -

A. PRODUCT WITHDRAWAL (SIPHON) W/O SPECIAL CONNECTION -	5/8" ODF (BRONZE)
B. GAS PHASE AUXILIARY CONNECTION -	1" FIPS (BRASS)
C. LIQUID PHASE AUXILIARY CONNECTION -	1" FIPS (BRASS)
D. HIGH (BOTTOM) WITHDRAWAL RATE CONNECTION-	1" FIPS (BRASS)
E. HIGH (SIPHON) WITHDRAWAL RATE CONNECTION-	1" FIPS (BRASS)
F. LIQUID FILL CONNECTION -	1-1/2" FIPS (BRASS)
G. VAPORIZER OUTLET -	3/4" OIPS (BRASS)



ELEVATION VIEW

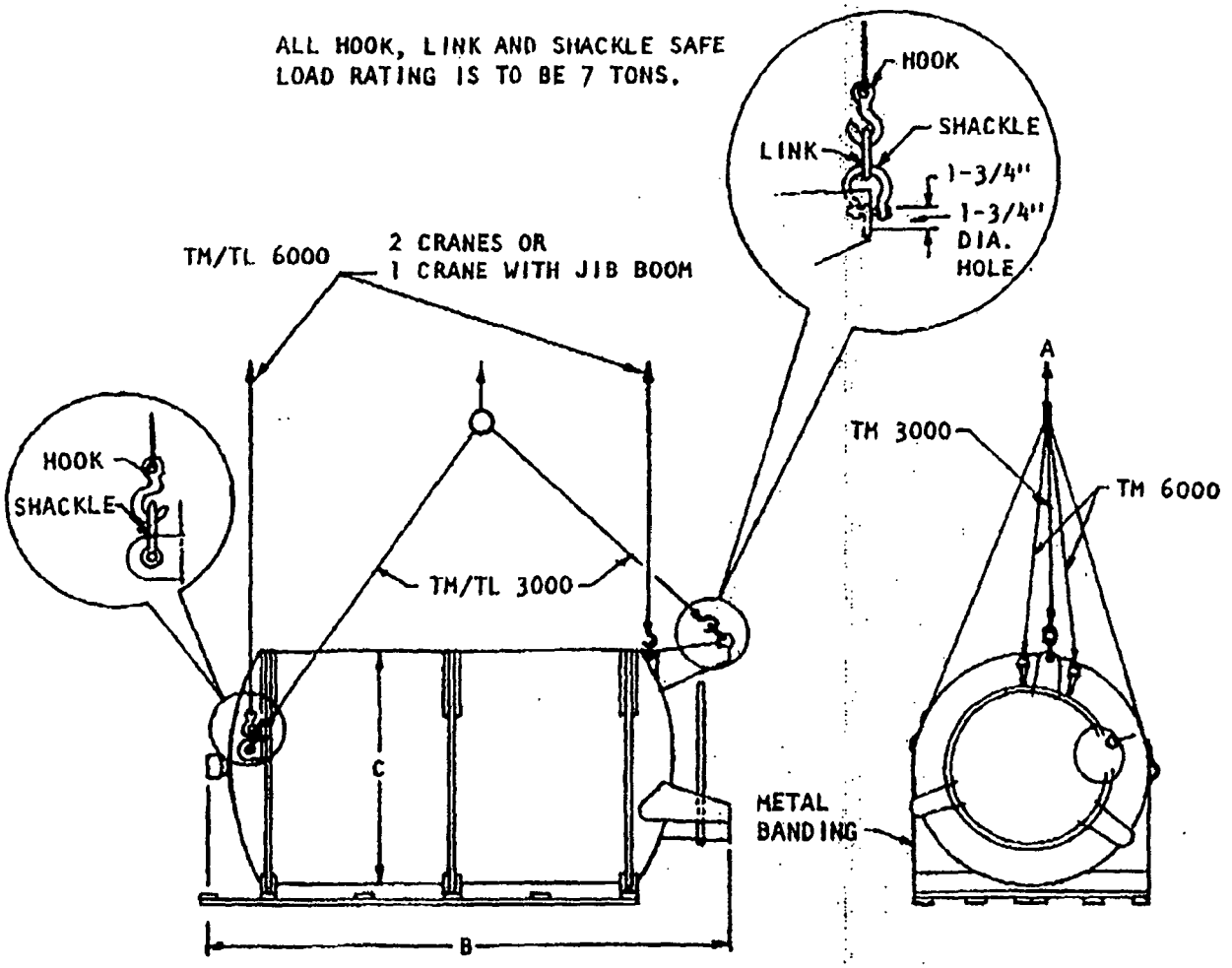


BOTTOM VIEW

CONNECTION AND DIMENSIONS, TM 3000 STANDARD TANK

APPROVED
FOR CONDITIONS SHOWN
AND SUBJECT TO FINAL INSPECTION
FIRE MARSHAL
PORTLAND, OREGON
PERMIT # 991735
BY: [signature] DATE 12/23/99

ALL HOOK, LINK AND SHACKLE SAFE LOAD RATING IS TO BE 7 TONS.



LETT.	DESCRIPTION	TM 3000	TM 6000	TL 3000	TL 6000
A	TANK WEIGHT .(LBS.)	15,500	28,600 27,800*	11,400	21,500 20,700*
B	OVERALL TANK LENGTH	15'-11½"	25'-8½"	15'-11½"	25'-8½"
C	TANK DIAMETER	96"	96"	96"	96"

*LIGHT TANKS: TM 6000 - PRIOR TO SERIAL NO. 6102
TL 6000 - PRIOR TO SERIAL NO. 7061

RIGGING INSTRUCTIONS FOR STANDARD TANKS (SHEET 3 OF 7)
HORIZONTAL LIFT FOR TM/TL 3000 AND TM/TL 6000

City of Portland
FIRE PREVENTION DIVISION
55 S.W. Ash Street
Portland, OR 97204 Phone: 823-3712

PERMIT NUMBER: T991736
FEE AMOUNT: $479.90
CODE: 19A2

Subject to the compliance with the ordinances of the City of Portland, permission is hereby granted for the installation of:

_x_ NEW INSTALLATION	___ ADDITION	___ ALTERATION	___ REPAIR	___ ABANDON	___ REMOVE
_x_ LIQUIDS/TANKS	___ L.P.G.	___ COMPRESSED GASES	___ PAINT SPRAY BOOTHS	___ CRYOGENS	___ OTHER

Located at: 7540 NW ST HELENS RD -

Contractor: KOPPERS INDUSTRIES

Permit Issued: 12/27/99 By: DOUG FRIANT Fire Marshal's Office

INSPECTION RECORD: DATE INSPECTOR OTHER

FINAL APPROVAL

APPROVE TANK/CYLINDER LOCATION _____
APPROVE PIPING AND VALVES _____ INSPECTOR:
PRESSURE TEST WITNESSED _____ DATE:
OK TO COVER _____

NOTE: Keep card conspicuously posted on premises until job is completed and final inspection made. Request for final inspection must be made within 14 days after completion of work. Permit valid for 180 days only

Received of: AMOS KAMERER The sum of: FOUR HUNDRED SEVENTY NINE AND 90/100----------

Date: 12/27/99 By: Norma Scott Paid Amount: $ 479.90 ___ Cash _X_ Check 244636

City of Portland
FIRE PREVENTION DIVISION
55 S.W. Ash Street
Portland, OR 97204 Phone: 823-3712

PERMIT NUMBER: T991736
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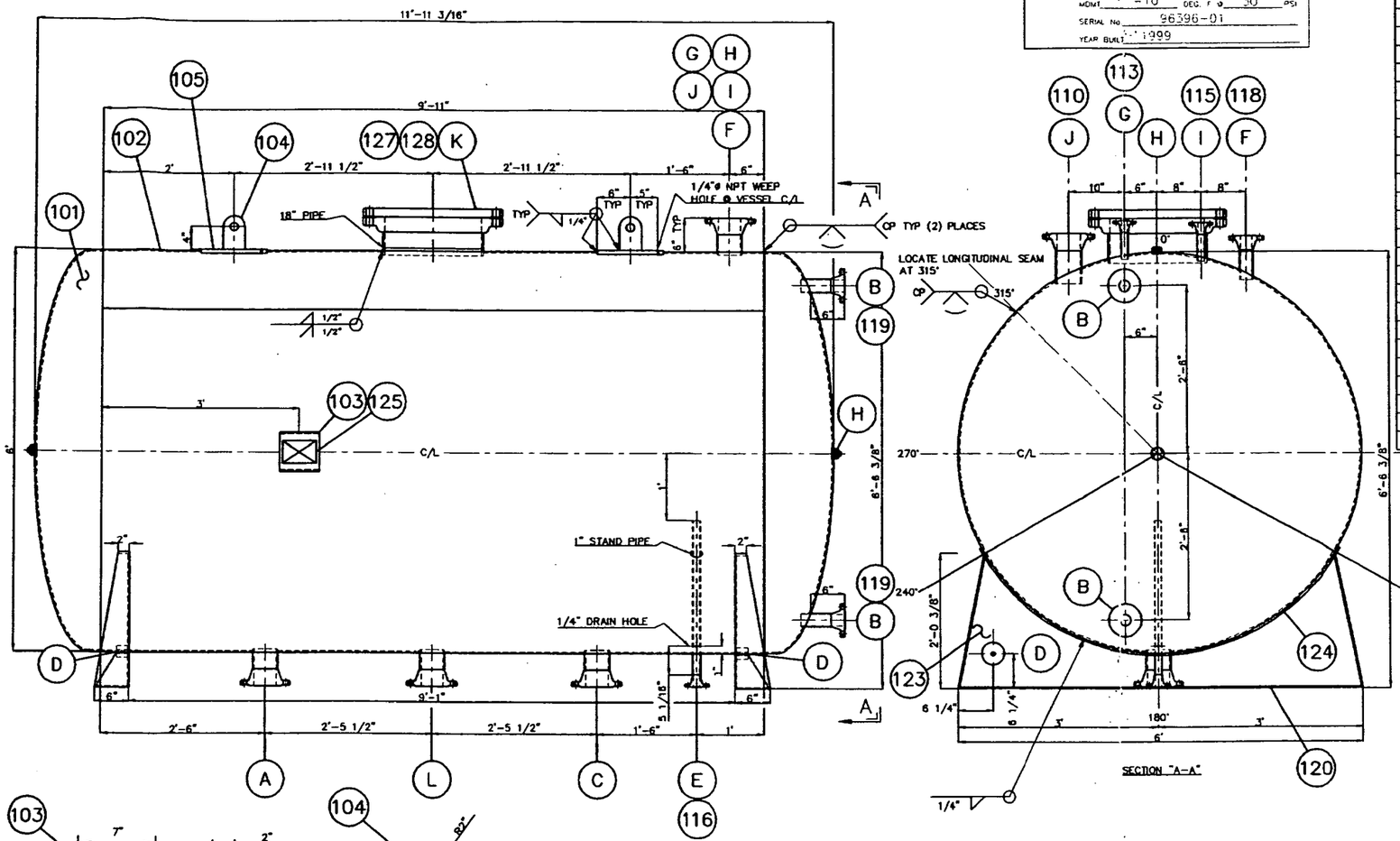
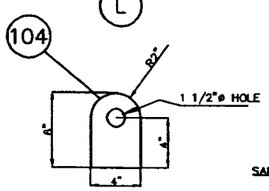
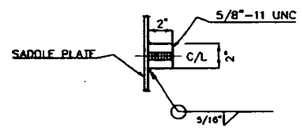


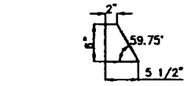
NAMEPLATE STANDOFF DETAIL.



LIFTING LUG DETAIL.



GROUNDING BOSS DETAIL



SADDLE GUSSET DETAIL

NATIONAL BOARD # _____ CERTIFIED BY

McDowell Welding & Pipefitting, Inc.
4000 NW St Helens Rd. Portland, OR 97210
Phone (503) 241-2410 Fax (503) 241-2767

MAWP 30 PSI AT 650 DEG F
MDMT -10 DEG. F @ 30 PSI
SERIAL No. 96396-01
YEAR BUILT 1999

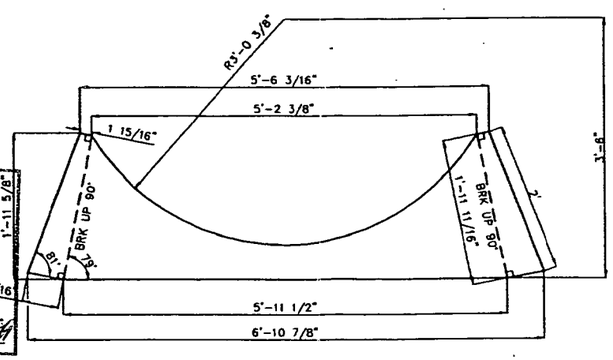
BILL OF MATERIALS

ITEM	QTY	SIZE	MAT. SPECS.	USE	HEAT #
101	2	HEAD 5/16" NOM F&D X 72" O.D. W/2" SF	SA-516 GR 70	HEADS	
102	1	PL 1/4" X 9'-11"L, ROLL TO 72" O.D.	SA-36	SHELL	
103	1	PL 1/4" X 7" X 10 1/8" L, FORM AS SHOWN	SA-36	NAMEPLATE STANDOFF	
104	2	PL 1/2" X 4" X 6", CUT AND DRILL AS SHOWN	SA-36	LIFTING LUGS	
105	2	PL 1/4" X 12" X 12", ROLL TO 72" I.D., DRILL AS SHOWN	SA-36	LIFTING LUG REPADS	
106	1	18" 150# BLIND FLANGE	SA-105	COVER - NOZZLE "K"	
107	1	18" 150# RFSO FLANGE	SA-105	FLANGE "K"	
108	1	PIPE 18" STD X 7 5/8" L	SA-538 WELDED	NOZZLE "K"	
109	4	4" 150# RFWN FLANGE W/SCH 40 BORE	SA-105	FLANGE "A", "C", "J" AND "L"	
110	1	PIPE 4" SCH 40 X 6" L	SA-538 WELDED	NOZZLE "J"	
111	3	PIPE 4" SCH 40 X 3 5/8" L	SA-538 WELDED	NOZZLE "A", "C", "L"	
112	3	1" 150# RFWN FLANGE W/SCH 40 BORE	SA-105	FLANGE "E", "G" AND "I"	
113	1	PIPE 1" SCH 40 X 4 11/16" L	SA-106 GR-B SMLS	NOZZLE "G"	
114	3	1" 3000# THREADED HALF COUPLING	SA-105	"H" AND HEADS	
115	1	PIPE 1" SCH 40 X 4 3/4" L	SA-106 GR-B SMLS	NOZZLE "I"	
116	1	PIPE 1" SCH 40 X 27 13/16" L, DRL 1/4"ø HOLE AS SHN	SA-106 GR-B SMLS	NOZZLE "E"	
117	3	2" 150# RFWN FLANGE W/SCH 40 BORE	SA-105	FLANGES "B" AND "F"	
118	1	PIPE 2" SCH 40 X 5 3/8" L	SA-538 WELDED	NOZZLE "F"	
119	2	PIPE 2" SCH 40 X 5 1/4" L	SA-538 WELDED	NOZZLES "B"	
120	2	PL 1/4" X 6" X 6'-0" L	SA-36	SADDLE FOOTPLATE	
121	2	1" STD PIPE PLUG	SA-105	CAP @ HEAD PLUGS	
122	2	2" X 2" MACHINED BOSS - FAB AS SHOWN	SA-36	GROUNGING BOSS	
123	2	PL 1/4" X 82 7/8" X 23 5/8", CUT AND FORM AS SHOWN	SA-36	SADDLE BODY	
124	2	PL 3/8" X 2" X 78 1/2" L, ROLL TO 72" I.D.	SA-36	SADDLE BELLY BAND	
125	1	ASME IDENTIFICATION NAMEPLATE	SA-240 T304	NAMEPLATE	
126	2	PL 1/4" X 5 1/2" X 6" L, CUT AS SHOWN	SA-36	SADDLE GUSSET	
127	1	18" 150# RING GASKET 1/8" THICK	FLEXITALLIC	MANWAY GASKET	
128	16	1 1/8" UNC X 6" L STUDS WITH 2X(2H) HEX NUTS/STUD	SA-193/SA-194	MANWAY BOLTS	
129	2	ROD 5/8"ø X 12" L, FORM AS SHOWN	SA-36	HATCH HANDLES	

L	4"	1	150#	RFWN	109	4.5"	6"	111	START-UP
K	18"	1	150#	RFSO	107	18"	6"	108	MANWAY
J	4"	1	150#	RFWN	109	4.5"	6"	110	START-UP
I	1"	1	150#	RFWN	112	1.315"	6"	115	RELIEF VALVE
H	1"	3	3000#	CPLG	114	1.315"	5/8"	114	PRESSURE GAUGE AND HEAD CAPS
G	1"	1	150#	RFWN	112	1.315"	6"	113	INLET
F	2"	1	150#	RFWN	117	2.375"	6"	118	NITROGEN
E	1"	1	150#	RFWN	112	1.315"	6"	116	DRAIN
D	2"	2				2"	2"	122	GROUNDING BOSS
C	4"	1	150#	RFWN	109	4.5"	6"	111	INLET
B	2"	2	150#	RFWN	117	2.375"	6"	119	LEVEL
A	4"	1	150#	RFWN	109	4.5"	6"	111	OUTLET
MK	SIZE	QTY	FLANGE RTG	FLANGE TYPE	FLANGE PART	NECK O.D.	NECK PROJ	PART	SERVICE

CONNECTION SCHEDULE

APPROVED
FOR CONDITIONS SHOWN
AND SUBJECT TO FINAL INSPECTION
FIRE MARSHAL
PORTLAND, OREGON
PERMIT 991736
BY: _____ DATE 12/22/99



SADDLE BODY FLAT PATTERN

SHOP INT _____ DATE _____
QUALITY INT _____ DATE _____
RELEASE FOR FABRICATION INT DCJ DATE 9-28-99

NOTES
1. FINISH: SANDBLAST INSIDE AND OUT
   INTERNAL PAINT- NONE
   EXTERNAL PAINT-
   TWO COATS - RED GLOSS TANK ENAMEL
2. NO IMPACT TESTING REQUIRED PER UCS-66(B)
3. ALL SHELL SEAM WELDS ARE FULL PENETRATION.
4. ALL STEEL SHALL BE ASTM-A36 OR ASTM A-516 GR 70.
5. REFERENCE DIMENSIONS CAN VARY AS NECCESARY BASED ON FIT AND ACTUAL HEAD STRAIGHT FLANGE HEIGHT.
6. SHOP TO ADD TANGENTS TO PLATE MATERIALS AS NECESSARY FOR ROLLING.
7. INSPECTION OPENINGS PER UG-46(F)(3).
8. DESIGNED IN ACCORDANCE WITH ASME SECTION VIII, DIVISION 1, 1998 CODE EDITION AND 1999 ADDENDA.
9. ABS INSPECTOR TO WITNESS HYDRO TEST WITH OUR A.I. PRESENT NOTIFY CLIENT PRIOR TO HYDRO TEST
10. SHELL SEAM JOINT EFFICIENCY IS 70%.
11. HEAD TO SHELL JOINT EFFICIENCY IS 85%.
12. INSTALL PLUGS IN OPEN COUPLINGS FOR SHIPPING.
13. NO INSULATION REQUIRED.
14. NO FIREPROOFING REQUIRED.
15. OWNER TO SUPPLY AND INSTALL PRESSURE RELIEF PER ASME SECTION VIII, DIVISION 1.
16. NOT DESIGNED FOR VACUUM SERVICE.
17. SEISMIC DESIGN AND APPROVAL SUPPLIED BY OTHERS
18. FLANGE BOLT HOLES TO STRADDLE HORIZONTAL AND VERTICAL CENTERLINES

VESSEL DATA

NUMBER OF VESSELS			1
TAG #			96396-01
DIAMETER (O.D.)			72"
LENGTH	CYLINDRICAL	FT / IN	9'-11"
	TOTAL	FT / IN	11'-11 3/16"
PRESSURE	DESIGN	PSIG	45.03
	OPERATING	PSIG	30
TEMPERATURE	MAXIMUM	°F	650
	MINIMUM	°F	-54
WEIGHT	EMPTY	LBS	2799.54
	MAXIMUM	LBS	22,875.69
VOLUME (OPERATING)		GAL	2000
VOLUME (MAXIMUM)		GAL	2400
NOTE: POST WELD HEAT TREAT		NONE	
CORROSION ALLOWANCE		.0625"	
WPS MWP-ER 70S-6-G1			
WPS MSPR			
WPS MWP-ER70-A			
CONTENTS = HT-43	SPECIFIC GRAVITY = .88 @ AMBIENT		
RADIOGRAPHY	NONE		
HYDROTEST PRESSURE	45 P.S.I.		
STRESS RELIEF	NONE		

MATERIAL
VESSEL - CARBON STEEL

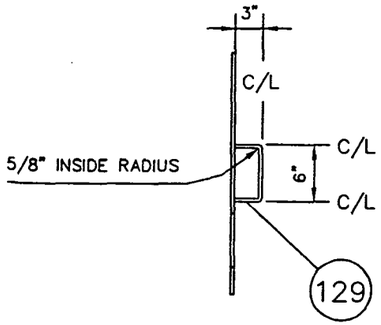
McDowell
4000 NW St. Helens Road
Portland, OR 97210

KOPPERS INDUSTRIES
PORTLAND, OREGON
CLIENT

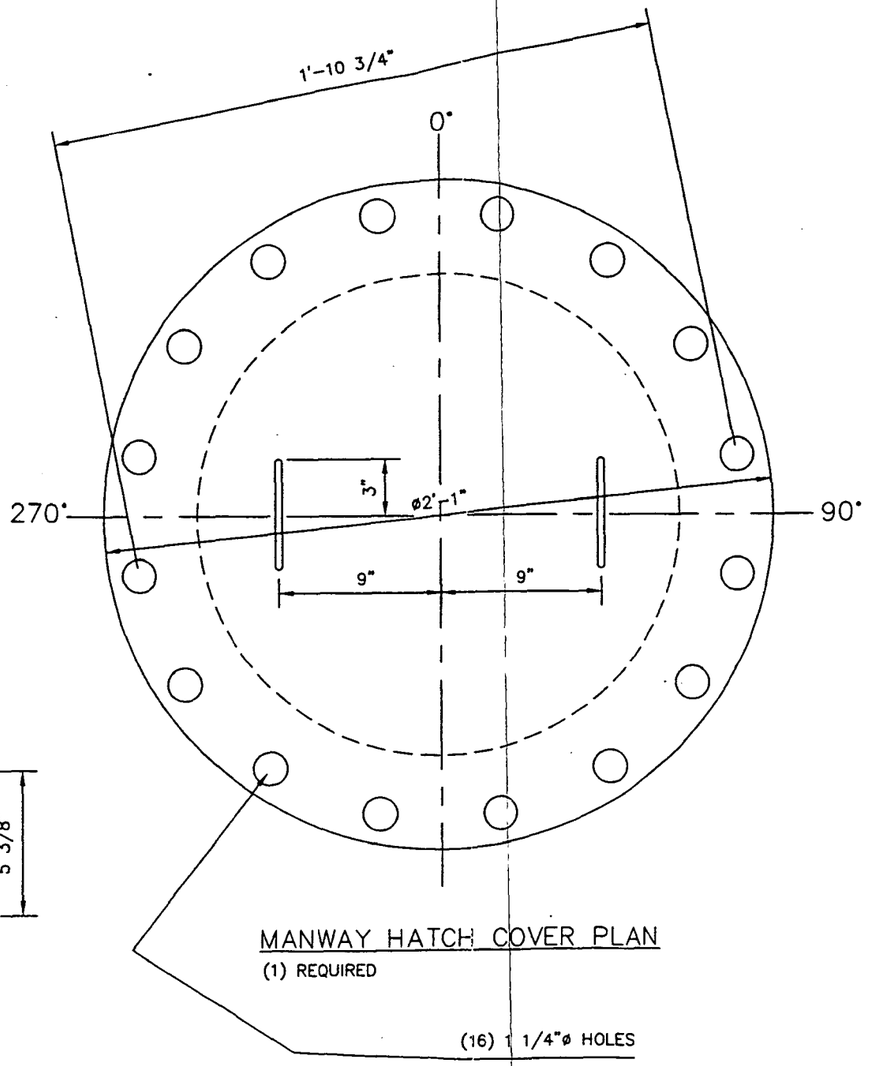
HOT OIL PRESSURE VESSEL
GENERAL ASSEMBLY
TITLE

DATE: 9/24/99	ENGR: DCJ	CHK: DCJ	APPVD: DCJ	DATE 9/24/99	DWN BY MLN	SCALE 1/4" = 1'-0"
ACAD FILE NO.: 96398-00-001		JOB NO.: 96398-001		DRAWING NO 96398-001		REV 0

Koppers019352

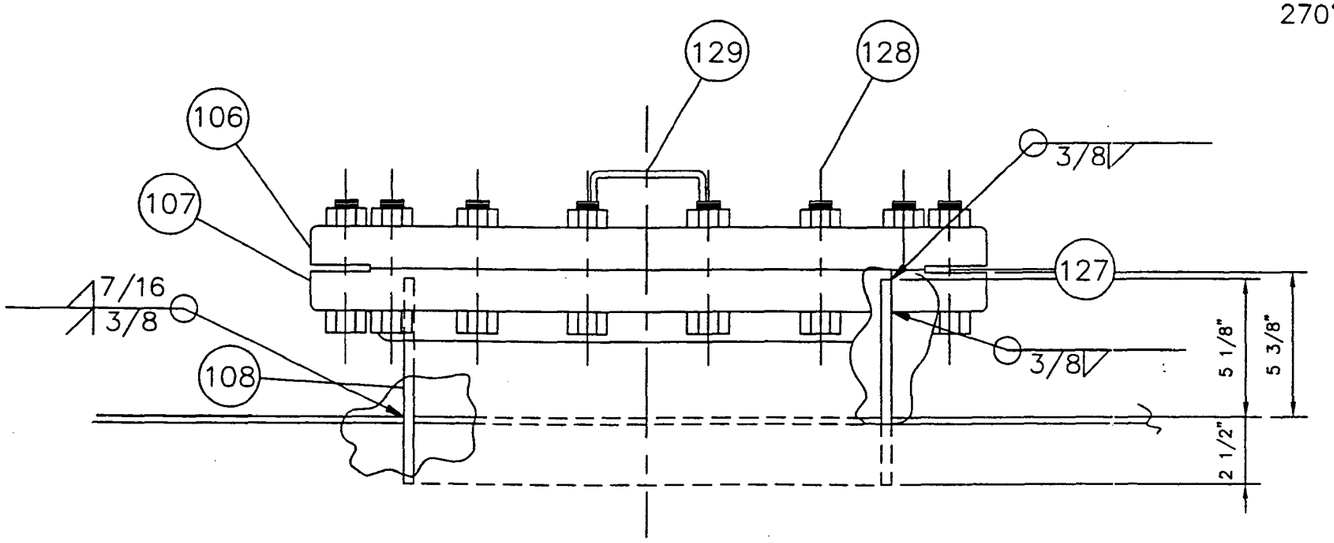


ITEM #129 – HATCH HANDLES
(2) REQUIRED



MANWAY HATCH COVER PLAN
(1) REQUIRED

(16) 1 1/4"ø HOLES



MANWAY ELEVATION
NTS
(1) REQUIRED

SHOP INT _____ DATE _____

QUALITY INT _____ DATE _____

RELEASE FOR FABRICATION INT DM DATE 9-28-99

SEE DWG 96396-001 FOR ASSY

NO.	DATE	REVISION	BY	CHK

WELDING McDowell PIPE FITTINGS
4000 NW St. Helens Road
Portland, OR 97210

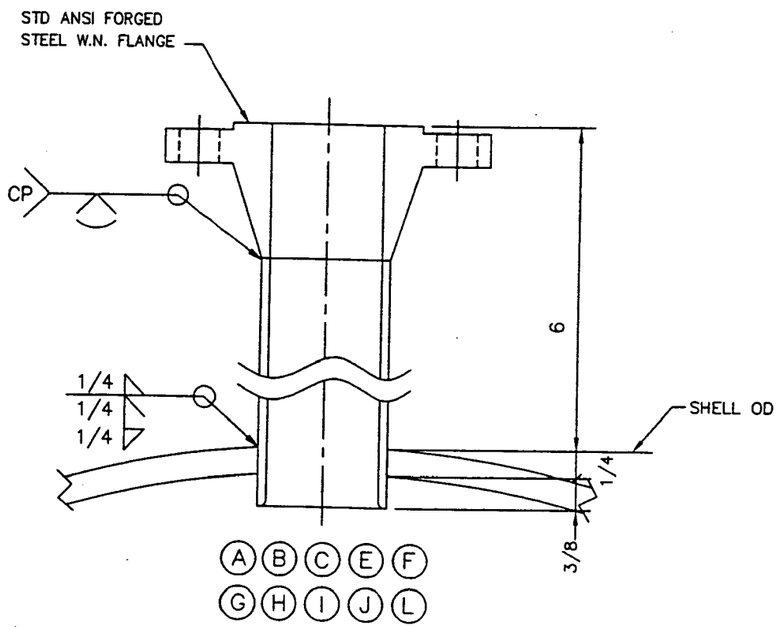
DATE: 9/27/99	ENGR: DGJ	CHK: DGJ	APPVD: DGJ
ACAD FILE NO.: 96396-00-002		JOB NO.: 96396	

KOPPERS INDUSTRIES
PORTLAND, OREGON
CLIENT

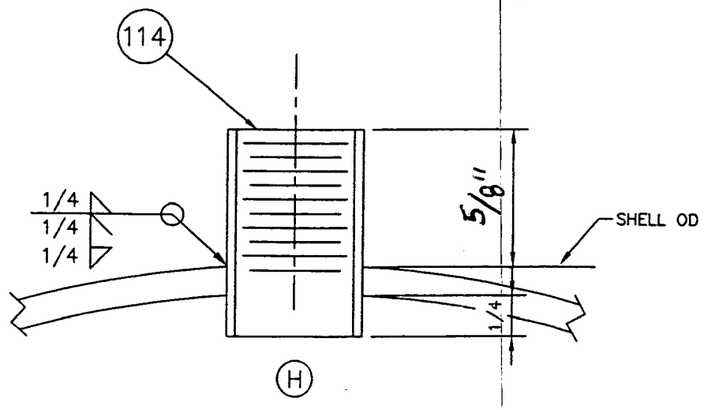
MANWAY DETAILS
TITLE

DATE	9/27/99	DWN BY	MLN	SCALE	NTS
DRAWING NO.	96396-002			REV	0

Koppers019353



STANDARD WELD NECK DETAIL
NTS



STANDARD COUPLING DETAIL
NTS

APPROVED
FOR CONDITIONS SHOWN
AND SUBJECT TO FINAL INSPECTION
FIRE MARSHAL
PORTLAND, OREGON
PERMIT # 991736
BY: [signature] DATE 12/22/99

SHOP INT _____ DATE _____

QUALITY INT _____ DATE _____

RELEASE FOR FABRICATION INT DW DATE 9-28-99

SEE DWG 96396-001 FOR ASSY

NO.	DATE	REVISION	BY	CHK

WELDED McDowell PIPE FITTINGS
4000 NW St. Helens Road
Portland, OR 97210

DATE: 9/27/99 | ENGR: DGJ | CHK: DGJ | APPVD: DGJ
ACAD FILE NO.: 96396-00-003 | JOB NO.: 96396

CLIENT: KOPPERS INDUSTRIES PORTLAND, OREGON

TITLE: HOT OIL PRESSURE VESSEL DETAILS

DATE 9/27/99 | DWN BY MLN | SCALE 3" = 1'-0"
DRAWING NO. 96396-003 | REV 0

Koppers019354

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop-Fabricated Vessels Only)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by MCDOWELL WELDING & PIPEFITTING, INC., 4000 NW ST. HELENS ROAD, PORTLAND, OR 97210 (Name and address of manufacturer)

2. Manufactured for Koppers Industries Inc., 7540 N.W. St Helens Rd., Portland, or 97210 (Name and address of purchaser)

3. Location of installation Koppers Industries Inc., 7540 N.W. St. Helens Rd , Portland, or 97210 (Name and address)

4. Type: Horizontal (Horiz. or vert. tank) | 96398-01 (Mfg's serial No.) | N/A (CRN) | 96398-001 (Drawing no.) | 52 (Nat'l Bd. No.) | 1999 (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 1998 (Year)

to 1998 (Addenda (Date)) | N/A (Code Case Nos) | None (Special Service per UG 120(d))

6. Shell: SA-36 (Mat'l. (Spec. No., Grade)) | 0.25" (Nom. Thk. (in.)) | 0.0625" (Corr. Allow. (in.)) | 5'-11.5" (Diam I.D. (ft. & in.)) | 9'-11" (Length (overall) (ft. & in.))

7. Seams: 1 (Long. (Welded, Dbl., Sngl., Lap, Butt)) | None (R.T. (Spot or Full)) | 70% (Eff. (%)) | None (H.T. Temp (F)) | None (Time (hr)) | 1 (Girth (welded, Dbl., Sngl., Lap, Butt)) | None (R.T. (Spot, Partial or Full)) | 1 (No. of Courses)

8. Heads: (a) Matl. SA-516 Gr 70 (Spec No., Grade) (b) Matl. SA-516 Gr 70 (Spec No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	End	0.25	0.0625"	72.0000"	4.3200"	N/A	N/A	N/A	N/A	concave
(b)	End	0.25	0.0625"	72.0000"	4.3200"	N/A	N/A	N/A	N/A	concave

If removable, bolts used (describe other fastenings) None (Matl., Spec. No., Gr., Size No.)

9. MAWP 40.00 psi at max. temp. 650 °F

Min. design metal temp. -20 °F at 40.00 psi. Hydro., ~~pneu.~~, or ~~combo~~ test pressure 60 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l	Nom. Thk.	Reinforcement Mat'l	How Attached	Location
Start Up	2	4" STD	PIPE	SA-53B	0.237"	None	Integral	N/A
Level Probe	1	1.5" STD	CPLG	SA-105	3000#	None	Integral	N/A
Manway/Cvr	1	18" STD	PIPE	SA-53B	0.375"	None	Integral	TOP / CNT.
Relief	1	1" STD	PIPE	SA-106 Gr B SMLS	0.133"	None	Integral	N/A

11. Supports: Skirt N/A (Yes or no) Lugs N/A (No.) Legs N/A (No.) Other Saddle (Describe) Attached Shell Bottom / Welded (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report:

None (Name of part, item number, Mfg's name and identifying stamp)

Inspection openings per UG-46(f)(3)

Pressure relief device provided and installed by others per UG-125

No impact testing required per ucs-66(b)

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 28287 expires JUNE 2000

Date 10-20-99 Co. Name MCDOWELL WELDING & PIPEFITTING, INC. (Manufacturer) Signed [signature] (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by MCDOWELL WELDING & PIPE FITTING, INC. at PORTLAND, OR 97210

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of OR. and employed by STATE OF OREGON SALEM, OREGON have inspected the component described in this Manufacturer's Data Report on 10-20 1999, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 10-20-99 Signed [signature] (Authorized Inspector) Commissions NB 11488 A/B OR 11488 (Nat'l Board (incl. endorsements) State, Prov. and No.)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by MCDOWELL WELDING & PIPEFITTING, INC., 4000 NW ST. HELENS ROAD, PORTLAND, OR 97210
(Name and address of Manufacturer)

2. Manufactured for Koppers Industries Inc., 7540 N.W. St Helens Rd., Portland, or 97210
(Name and address of Purchaser)

3. Location of Installation Koppers Industries Inc., 7540 N.W. St.,Helens Rd., Portland, or 97210
(Name and address)

4. Type: Horizontal (Horiz., vert., or sphere) | Hot Oil Pressure Vessel (Tank separator, heat exh., etc) | 96398-01 (Mfg's serial No.)

N/A (CRN)	96398-001 (Drawing No.)	52 (Nat'l. Bd. No.)	1999 (Year built)

Data Report Item Number	Remarks
Item # 5	Pressure Gauge 3(ea) 1" STD CPLG SA-105 3000# Integral
Item # 6	Inlet 1(ea) 1" STD Pipe SA-106B-SMLS 0.113"(w) Integral
Item # 7	Nitrogen 1(ea) 2" STD Pipe SA-53B 0.154"(w) Integral
Item # 8	Drain 1(ea) 1" STD Pipe SA-106B-SMLS 0.0113(w) Integral
Item # 9	Inlet 1(ea) 4" STD Pipe SA-53B 0.237"(w) Integral
Item # 10	Level 2(ea) 2" STD Pipe SA-53B 0.154"(w) Integral
Item # 11	Outlet 1(ea) 4" STD Pipe SA-53B 0.237" (w) Integral

Certificate of Authorization: Type U No. 28287 Expires JUNE 2000

Date 10-20-99 Name MCDOWELL WELDING & PIPEFITTING, INC. (Manufacturer) Signed (Representative)

Date 10-20-99 Name Clay Rhodes (Authorized Inspector) Commission NB 11488 A/B OR 11488 (Nat'l Board (incl. endorsements) State, Province and No.)

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

Purchase Order

KOPPERS INDUSTRIES

Date: November 2, 1998 Purchase Order # 3000-8-13018

Page: 1 Contact: JACK L. STEPHENSON 412/826-3907

To: American Heating Co., Inc.
1200 Rte. 46
Clifton NJ 07013

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	REQUEST: J. DIETZ ACCOUNT:	
	HOT OIL SYSTEM	
	EXHIBIT A - OSHA COMPLIANCE	
1	High efficiency American Heating Company Model AHE-1000 oil heater sized for an output of 10 MM BTU/hr. Unit to be as quoted with one (1) ATC-2-6-20 tank coil.	
	Base System Expansion Tank Change	$190,860.00 $4,830.00
	NOTE: As per previous instructions, the original Dean Pump Motors and the eight coils are to be shipped to: KOPPERS INDUSTRIES, INC 100 KOPPERS ROAD FOLLANSBEE, WV 26037	
	Seller shall furnish three sets of complete drawings for Koppers Industries, Inc. reference and file. Drawings to be sent to: KOPPERS INDUSTRIES, INC. ATTENTION: JACK L. STEPHENSON 1005 WILLIAM PITT WAY PITTSBURGH PA 15238-1362	
	Send original invoice to: KOPPERS INDUSTRIES, INC. ATTENTION: JACK L. STEPHENSON 1005 WILLIAM PITT WAY PITTSBURGH PA 15238-1362	
	Send one copy of all invoices to: KOPPERS INDUSTRIES, INC. 7540 N.W. STREET, ST. HELENS RD. PORTLAND, OR 97210-3663	
	Confirming order of 9/02/98	
	PRICE: Based on Seller's quotes dated 8/20/98, 8/26/98 and 9/28/98 **FOB:** **SHIPPING** POINT **SHIP:** 11/06/98 **TERMS:** Balance owed of $90,864 will be paid upon receipt of material. Invoice to be submitted upon shipment per above instructions.	

COPY

RECEIVED
NOV - 6 1998
KOPPERSINDS. INC.
PORTLAND OR

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

Purchase Order

KOPPERS INDUSTRIES

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QUANTITY	DESCRIPTION	PRICE
	ALL FEDERAL EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION REQUIREMENTS IN REGARD TO RACE, SEX, RELIGION, NATIONAL ORIGIN, HANDICAP AND VIETNAM VETERAN OR DISABLED VETERAN STATUS, AS FOUND IN 41 CFR 60-1.4, 41 CFR 60-250.3, AND 41 CFR 741.3, ARE HEREIN INCORPORATED BY REFERENCE. KOPPERS INDUSTRIES IS ENTITLED TO ALL REMEDIES PURSUANT TO THE UNIFORM COMMERCIAL CODE. **PLEASE ACKNOWLEDGE YOUR ACCEPTANCE OF THIS ORDER BY SIGNING AND RETURNING THE ATTACHED <u>COPY.</u>**	

ACCEPTED BY:

KOPPERS INDUSTRIES, INC.
AUTHORIZED SIGNATURE
JACK L. STEPHENSON/sad
CC: W. Meisinger - HTC

SELLER'S AUTHORIZED SIGNATURE

TITLE _____

DATE _____

TOTAL: $195,690.00

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238-1362

Purchase Order

KOPPERS INDUSTRIES

Date: November 2, 1998 Purchase Order # 3000-8-13018

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Pittsburgh, PA 15238-1362

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ACCEPTED BY:

KOPPERS INDUSTRIES, INC.
AUTHORIZED SIGNATURE
JACK L. STEPHENSON/sad
CC: W. Meisinger - HTC

SELLER'S AUTHORIZED SIGNATURE

TITLE _____

DATE _____

TOTAL: $195,690.00

Date: 2/24/00 9:04 AM
Sender: Amos Kamerer
To: John Kunkle
cc: BILL MEISINGER
Priority: Normal
Subject: Liquid Unloading expenses

John,

Here's a list of item's that we discussed:

Used containers for shop storage	$ 5,050
Asbestos removal from still room - new shop	5,614
Electrical work for new shop	4,281
Construction trailer rental	2,219
3 jacketed valves for the rail car loading station	2,100
Excavation work for the ODEQ wells	4,830
Half of the cost to install the ODEQ wells	11,726
Fill dirt removal off concrete tank foundation	636
Painting of tank # 240	1,158
Installing removable flanges to steam line	475
Discharge hose Buns	2,774
Discharge hose's	18,716
Re-feed electrical to old pitch building	1,720
Total	$ 61,299

Let me know if you need anything else.

Also, Bill said that Jack Stephenson mentioned to him that he would be on the
audit team and that the audit was scheduled for June. Can you verify just when
the audit will be, so that I can check my schedule for any conflicts. Thanks.

Amos

To Amos

Date 2/22/00 Time 1:07 ☐AM ☒PM

WHILE YOU WERE OUT

M John Kunkle

of PA

Phone Numbers

Office Area Code Number Ext. Speed : 920

Voicemail

FAX

Pager

Mobile Audit/August

e-mail

☒ Telephoned
☒ Please call
☐ Returned your call
☐ Called to see you
☐ Wants to see you
☐ Will call again
☐ URGENT

Message

Turnover - pre-audit, audit.

Search list back with Bill

Stephanie part of audit team / Dave

CP

Operator

GreenCycle® RECYCLED PAPER

Reorder #23-700

EXTRA PLANT EXPENSES – 1999
NORTHWEST TERMINAL
PORTLAND, OREGON

ITEM	COST	TOTAL
• Container rental and purchase's	$5,050	$ 5,050
• Asbestos removal – still rooms and pipe line	5,614	10,664
• Shop electrical work	1,871	12,535
Air Compliance Consultants – air permit work	3,145	15,680
Safety Kleen – shop chemicals disposal	3,602	19,282
Safe Ice Blasters – tank cleaning for scrape disposal	2,458	21,740
• Charlie's office trailer (for 7 months)	1,500	23,240
Case front-end loader trans. Repair	5,100	28,340
ODEQ – air permit fee	2,165	30,505
ODEQ _ NPDES permit fee	1,885	32,390
• Jacketed pitch valves @ rail loading station (3 x $700–old ones not re-buildable)	2,100	34,490
Hals Const. – paving repairs in the pitch storage buildings	2,028	36,518
Vican pump rebuild – to unload Stickney liquid pitch cars	1,808	38,326
Steel Yard – steel for pitch building repairs	900	39,226
• Harder/ RM Cat excavation for ODEQ wells	4,830	44,056
Ponder – Lab coking oven controller	1,700	45,756
ODEQ – site assessment fee's	993	46,749
• NW Natural – half of ODEQ well cost	11,726	58,475
ODEQ – site assessment fee's	741	59,216
• McDowell – fill removal of tank ramp off the concrete foundation	636	59,852
• " – Paint tank #240	1158	61,010
• " – Steam line Flanges	475	61,485
• Peterson Ind. – Log. pitch Hose buns	2774	64,259
• " – 4 Log. pitch discharge hoses 18,716	~~9358~~	~~73,617~~
• Chandler – Electrical work @ new shop & concrete building	2410	76,025
• " – Re-feed lights @ old pitch shed	1720	77,747
" – Repair Zero speed controls on conveyor	1560	79,307

2000

GeoTech	– Recapping the DEQ wells	$1,000	$1,000
RM Cat	– disposal of excavated dirt	1,082	2,082
	– pipe line signs	2,671	
Acts	– insulation At the old systems		
Chandler	– Electrical/telephone to Nitrogen Tank	3,500	

Koppers019363

well costs

RMCAT excavating	$4,830.00
Chandler Electric	$1,720.00
Mcdowell Mechanical	$475.00
Asbestos removal	$425.00
total costs	$7,450.00
total cost minus excavating	$2,620.00

Harder EWA:

ORIGINAL $931,000 00

801 $ 7,240

802 $ 3,137

803 $ 332/SPLICE Pile Splicing } NOT SETTLED YET

804 $ 528/SPLICE

58 piles

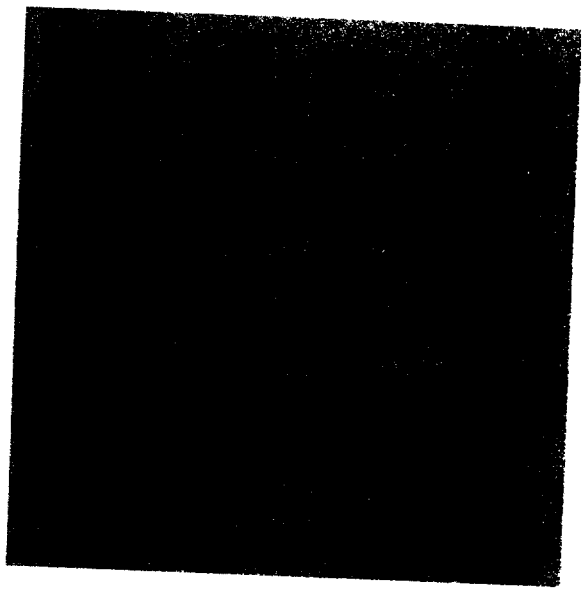
4,830 [illegible] FOR DRILL RIG PREP

COMPENSATE FOR INCORRECT PLACEMENT OF PIPE SUPPORT ANCHOR BOLTS

BACKCHARGE $ [illegible]

CLEANING OF EMPLOYEE CARS COVERED W/DIESEL & GREASE FROM PILE DRIVING $???

[redacted]



Author: AMOS KAMERER at PITT
Date: 4/21/99 2:55 PM
Priority: Normal
TO: BILL MEISINGER at TECHCTR
CC: Jack Stephenson at PITT
Subject: Harder

---------- Message Contents ----------

Bill,

Tom Howell just called to say that his bolt supplier just called him to say that they had made a mistake on the big tank bolts and wanted to know if the following would be acceptable.

The original design was for them to be 2 3/8" X 7' 6", this was later changed to 2 1/2" X 7" 6". They ended up being 2 1/2" X 7' 5 3/8" or 5/8" short. Is this acceptable? Bill, I told him that you would call him tomorrow about this.

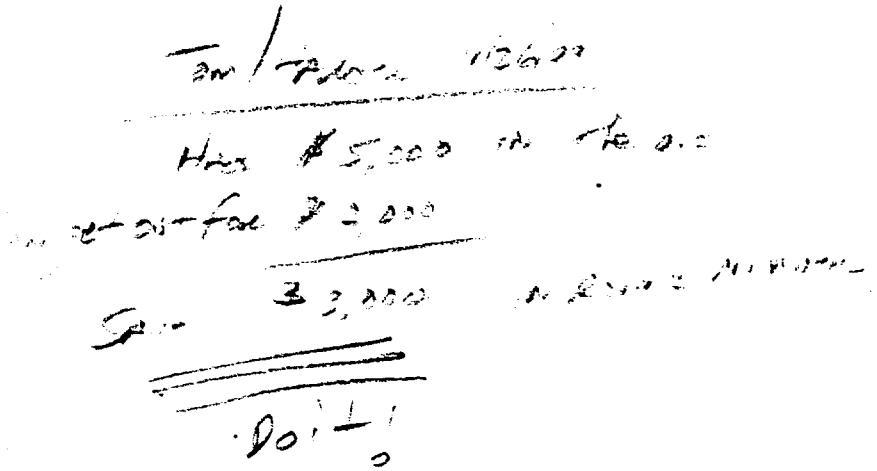
Jack, have you amended the RM Cat purchase order on the concrete change orders? Apparently, Bob Janak was mistakenly told by Bill Thorpe, Harders on site man, that Tom didn't care how we (KII & TMC) handled these. Tom, said that he understood from me that Harder could just go ahead and do it, I said yes that is correct, but after that when I talked to Janak, I thought you had changed your mind. He said, well have I already signed the change orders and sent them to RMC. I said OK/fine, it isn't enough money to worry about. So, hopefully you have not amended the RMC PO and can just forget it. Let me know.

FYI, Tom also said that he is now having Bill track his time, due to the delays caused by the concrete problems, and well be requesting change orders for that, as well.

Thanks,

Amos

PS: Sandy at NWN was not in today, so I left a message.



Author: AMOS KAMERER at PITT
Date: 4/20/99 5:16 PM
Priority: Normal
TO: BILL MEISINGER at TECHCTR
TO: Jack Stephenson at PITT
Subject: Change orders

---------- Message Contents ----------

Guy's,

I mentioned earlier today about the extra concrete excavation work; after we talked I called Tom @ Harder and said that for 10% it was no big deal, go ahead and add it to our work.

Well, since then we found one more slab that Bob Janak @ TM Cat knows about, now we have just found a 1,000 gallon septic tank that he does not know about. Plus, shortly after we found that, we uncapped a watter line that none of us knew about, and had to shut off the water for the whole plant, while they welded a new cap on to it. TJ and the guys are now restarting the plant steam system.

Bob called me a couple of hours ago to say that in light of all of this new "stuff" that Tom had called him and suggested that in light of all of this new "stuff" that Bob go ahead and deal with KII direct, and save us the mark up in the process. He has faxed me 3 change orders to sign totaling $4,195, with more now coming tomorrow; do you guy's need copies of these for you files?

Amos - from the "666" project!

Date: 12/10/99 5:36 PM
Sender: Amos Kamerer
To: Kevin Fitzgerald; Jim Dietz; BILL MEISINGER; BOB WOMBLES; John Kunkle; Traci Self; Mark Cilley; iskoppers@aol.com; TJ Turner
Priority: Normal
Subject: Liquid Pitch Project Update

Cost Analysis

a) budget	$4,310,000
b) spent to date	4,298,013
c) committed to date	4,689,485
d) deviation	391,472

Time Line

W/O 12/6/99

Mechanical - with the exception of a change order that we gave them yesterday, they are finished with all of the piping work, and they will be finished with the change order on Monday. They then only have to finish the roof construction of the pitch pump shed and various clean up items, around the project. They will be finished by 12/17.

Insulation - they have finished the tank and the scaffold has been dismantled. They have a few more items to finish like the fume recovery line, the blanketing some of the hot oil valves and pumps, clean up, Etc.. They will also be finished by 12/17.

Electrical - they still have several punch list items to finish and we are pressing them the hardest, at this time, however, they have promised extra men next week to get finished by 12/17, as well.

Hot Oil Heater - this has been thoroughly tested and all systems are running. Training has been on going with our employee's and will continue through the time until the arrival of the first vessel.

The Portland Fire Bureau inspected and approved the modifications to the fire lines, on the dock this week.

Gearbulk visited this week to review our operating procedures for the dock and to discuss among all of us, how we will actually be making the connections from the dock manifold and the vessel's manifold. These are good people to work with, they are all first class.

We are working this weekend, as we need to make a new batch, so that we have enough liquid pitch for both our customer's needs and the 700 tons for tank T - 200.

W/O 12/13/99

The paving contractor will be in the plant on Monday and weather permitting they will be finished with all of the patch work that needs to be done by Wednesday.

We plan to transfer about 700 tons of liquid pitch to the new tank on Tuesday, to dry out the tank foundation and insulation. We will bring this back up to temperature over the next day or so, and then will run and test the circulation system, most likely on Thursday. From this point on, we will simply be

running the hot oil system to maintain heat in the tank and lines, while waiting for the vessel. We will work the weekend of the 18th and 19th, prior to the ETA of the vessel on the 22nd. This will be the 5th weekend out of the last 7 weekend's that we have had to work, to keep up with everything. Every buddy is pretty tired.

The Coast Guard has already given us of verbal approval of our operating procedures with PTSI, and have indicated that they will have the official operating letter written and to us, by Wednesday of this week.

W/O 12/20/99

The vessel is due in at about 0600 hours on the 22nd, weather permitting. Needless to say, we are all pretty excited about first discharge. With this being the first discharge, I am expecting the it will take at least 36 hours, so, we could be finished by 1800 hours on the 23rd. Time will tell. If there are any delays, the discharge will continue until completion, regardless of the Christmas holiday.

Amos

A) budget 4,310,000

B) spent to date 4,298,053

c) committed to date 4,688,485

d) deviation 391,472

GL/46116/MENU100PRTJV
12/01/99 07:26:06 AM

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
November 1999

Requested By KUNKLE

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#	Tx#	Comments/Vendor/User	Amounts
4210	9270			46		31	4636	362	PORTLAND CITY	480.00
4210	9270			46		31	4637	362	PORTLAND CITY	987.00
4210	9270			46		32	7	362	MCDOWELL WELDING & PIPEFITTING	395.00
4210	9270			46		32	8	362	MCDOWELL WELDING & PIPEFITTING	10,406.00
4210	9270			46		32	19	362	PACIFIC TECHNICAL IND INC	1,202.00
4210	9270			46		32	20	362	PONDER BURNER CO	75.00
4210	9270			46		32	41	362	CHANDLER ELECTRIC INC	55,264.00
4210	9270			46		32	54	362	PONDER BURNER CO	5,390.00
4210	9270			46		32	63	362	GEO ENGINEERS INC	188.00
4210	9270			46		32	64	362	GEO ENGINEERS INC	456.00
									Total Detail (0000)	74,843.00
									Total Location (9270)	74,843.00
									Total G/L (4210)	74,843.00
									Total Report	74,843.00

4,223,170
4,298,013

AMOS/BILL

10/2

Date: 12/5/99 7:01 PM
Sender: Bill Meisinger
To: BOB WOMBLES
cc: Amos Kamerer; Jim Dietz; Kevin Fitzgerald; <ISKOPPERS@aol.com>
Priority: Normal
Subject: Portland Update

Bob,

Portland Liquid Pitch Project Update as of 12/3/99

Construction:

Mechanical-All pitch piping and hot oil piping is completed and tested
Stormwater, steam tracing and misc. piping is in progress
and will be completed week of 12/6/99.
Pitch pump shed will be comleted upon removal of tank
scaffold.
Ship hose rack on dock will be completed week of 12/6/99

Insulation-Tank insulation is complete and scaffold will be removed
week of 12/6/99
Remaining pitch circulation and transfer piping will be
completed early week of 12/6/99.
Remainder of miscellaneous insulation to be completed week
of 12/13/99.

Electrical-All motors and instruments to run new hot oil system are
complete. Lighting and dock instrumentation require
terminations.

Other-Fence repair, nitrogen fence and asphalt paving will be
completed in the next two weeks.

Start-up-The new hot oil system was filled and successfully operated
to 250 deg.F the week of 11/29/99.
Week of 12/6/99 the oil system will be restarted and pitch
transferred from the melter to the new tank for intitial tank
heatup.

Koppers Industries
Portland Plant

Liquid Pitch Unloading Terminal

06-Dec-99

Item	Budget	Committed	Deviation	To Committ	Est. Final Cost
1.0 Engineering					
1.1 Preliminary	$56,458	$56,458	$0	$0	$56,458
1.2 Detailed					
1.2.1 Permitting	$55,822	$41,194	$14,628	$0	$41,194
1.2.2 Design					
1.2.2.1 Dock & Pipelin	$180,000	$178,305	$1,695	$0	$178,305
1.2.2.2 Piling & Tank	$47,200	$72,200	($25,000)	$0	$72,200
1.2.2.3 General	$310,000	$311,120	($1,120)	$0	$311,120
1.3 Special Inspections	$0	$21,200	($21,200)	$0	$21,200
2.0 Equipment					
2.1 Pitch Tank	$412,553	$394,481	$18,072	$0	$394,481
2.2 Hot Oil Heater/Pumps	$163,520	$188,701	($25,181)	$0	$188,701
2.3 Pitch Pumps & Equip.	$111,036	$52,410	$58,626	$0	$52,410
2.4 Instrumentation	$110,651	$175,576	($64,925)	$10,000	$185,576
2.5 Valves	$7,300	$59,750	($52,450)	$0	$59,750
2.6 Switchgear	$75,450	$25,976	$49,474	$0	$25,976
2.7 Hot Oil Jackets	$0	$7,612	($7,612)	$0	$7,612
3.0 Other Items					
3.1 Fume Recovery Upgrade	$79,391	$79,391	$0	$0	$79,391
3.2 Shop Relocation	$13,200	$13,200	$0	$0	$13,200
4.0 Installation					
4.1 Foundations/Concrete	$931,000	$955,712	($24,712)	$13,000	$968,712
4.2 Structural	$303,250	$289,952	$13,298	$0	$289,952
4.3 Mechanical	$958,310	$983,806	($25,496)	$20,000	$1,003,806
4.4 Electrical & Instrumentation	$336,812	$347,404	($10,592)	$0	$347,404
4.5 Insulation	$335,800	$270,509	$65,291	$6,220	$276,729
4.6 Paving	$20,600	$9,187	$11,413	$5,400	$14,587
4.7 Soil Disposal	$0	$97,039	($97,039)	$0	$97,039
5.0 Freight		$3,682			$3,682
6.0 Contingency	$130,000		$130,000		$0
Subtotal	$4,638,353	$4,634,865	$3,488	$54,620	$4,689,485
7.0 Capitalized Interest					$0
Total					$4,689,485
Authorized Capital					$4,310,000
Overrun					$379,485
%					8.80%

Koppers019373

Date: 11/26/99 4:28 PM
Sender: Amos Kamerer
To: Kevin Fitzgerald; Jim Dietz; Wayne Plovic; BOB WOMBLES; BILL MEISINGER; John Kunkle; Traci Self; Jack Stephenson; Mark Cilley; TJ Turner; iskoppers@aol.com
Priority: Normal
Subject: Liquid Unloading Project Time Line Update

W/O 11/22/99

The Mechanical contractor has finished up the pitch transfer pipe line this week and it has been hydro tested. They are still working on the related hot oil lines and will have these finished early next week.

The Insulation contractor finished the side walls on the new tank this week, but do to pretty sever weather storm we had on Wednesday, they did not get finished with the roof, as planned. This will be finished on Monday and will not interfere with any other work that needs to be done. They should have the scaffold down and removed by Friday the 3rd.

The electrical contractor and the MCC contractor worked all week to have those systems up and running next week, for the start up of the new hot oil system.

W/O 11/29/99

We are scheduled to have the new hot oil delivered Tuesday AM and the start up of this system. All going well, we plan the transfer about 500 tons of liquid pitch from the melter to the new storage tank, on Thursday.

The Mechanical contractor will finish the hot oil lines and nitrogen testing early this week, they will also be installing the new discharge hose storage rack down at the dock. As well as finishing the fire line modifications there, as well. This contractor should be essentially finished with their work by the end of this week, with only minor items to be completed over the next couple of weeks.

The Insulation and Electrical contractors will continue working on their punch list items, this week.

W/O 12/06/99

A final system check is scheduled this week. The radar level transmitters will be installed on the new tank. We also plan to add another 500 tons of liquid pitch to the new tank, to test the circulation system. Additional employee training is also planned for this week.

The Insulation contractor should be finished by the end of this week, or early next week.

The electrical will still have a good punch list of items that will keep them busy for the next 2 weeks.

W/O 12/13/99

Things should be pretty much completed by now. I expect that we will have the civil contractor back in this week to finish up the black topping work the needs to be finished. We will transfer back some of the liquid pitch into the melter this week, from the new storage tank, so that we will be ready to receive the vessel next week. We plan to work the weekend of the 18th and 19th, to run the hot oil system, to make sure that we are ready for the first discharge.

The Electrical contractor will continue work on his punch list items.

We will continue with employee training this week as well.

W/O 12/20/99

Gearbulk is now showing an ETA of the 21st, so, maybe we can all be home for Christmas with our families.

Amos

Date: 9/22/99 10:23 AM
Sender: Bill Meisinger
To: Kevin Fitzgerald; BOB WOMBLES; Amos Kamerer; Jim Dietz; Dave Wible
Priority: Normal
Subject: Re[2]: Portland Liquid Pitch Schedule

Jim,

Dave is currently working on the procedures. Dave's first visit to the site will be the week of Oct. 11. At that time we will fine tune the start-up schedule.

Bill

_____ Reply Separator _____

Subject: Re:Portland Liquid Pitch Schedule
Author: Jim Dietz at PITT
Date: 9/21/99 5:18 AM

Bill,

I have discussed with Amos that developing preliminary operating procedures and modifications to the SPCC plan should not wait the unloading agreement with PNO is settled as it will necessary for KII to supply in any case. Please advise when Dave will begin writing procedures for the system. It may not be necessary for him to be on site to start the procedures, but I think by mid-October at the latest he should be there full time until commissioning is complete.

Jim

_____Reply Separator_____

Subject: Portland Liquid Pitch Schedule
Author: Bill Meisinger
Date: 9/20/99 5:30 PM

Kevin,

Portland Liquid Pitch project update as of 9-20-99. Completion estimated for end of November.

Equipment Delivery:

All equipment is on site less four pitch pump relief valves which were delayed and will be delivered this week.

Two new items were added.
A new hot oil system expansion tank had to be bought with ASME code stamp and inspection port to conform to Oregon state

requirements.
This item has a five week delivery and will be ready to install in early November when the heating oil system is cleaned and recharged.
The ship unloading hose specifications were finalized after our visit to Kitimat and the hoses were orderd with a 5-6 week delivery.

Tank Construction:

Tank construction is complete. Grouting of the tank will be done this week. Hydrostatic testing of the tank is scheduled for the week of 9/27. At that time the tank builder will take care of any punch list items.

Mechanical and Piping:

After meeting with our mechanical contractor last week, it looks like it will not be a possible to meet the 11-1-99 completion. As of 9-27-99 additional men have been added to the job. Charlie Norris is tracking manhours and task completion very closely. The best estimate for completion of mechanical work is mid-November.

Electrical & Instrumentation:

The PLC panel is on site. The electrical contractor continues with conduit runs and pulling cable. The target of 11-1-99 completion is on track.

Insulation:

The insulators are on site working on the pitch line insulation. Tank insulation will not begin until 10-4-99 due to the delay in grouting and testing the tank. Tank insulation will be done the week of 11-15-99. Finishing the Piping insulation will follow mechanical completion.

Shakedown and Start-up:

Start of shakedown activities remains scheduled for mid-October. Work will proceed as equipment becomes available. Flushing and recharging the hot oil system is planned for mid-November. At that time initial heating of the new system can begin with the system ready

by the end
of November.

Operating procedures for the dock will be completed pending a final
agreement for contracting the ship unloading labor.

Budget:

Committed: $4,609,000
Est. Final Cost: $4,672,000

An updated budget summary has been e-mailed to John Kunkle.

Bill

Date: 7/19/99 7:35 AM
Sender: Amos Kamerer
To: BILL MEISINGER; Jack Stephenson; iskoppers@aol.com
Priority: Normal
Subject: Fwd:Portland Timeline

TANK X-RAYS
$2,404 ORIGINAL
$1,647 ADDITIONAL
$4,051 NEW TOTAL

Forward Header
Subject: Portland Timeline
Author: Kevin Fitzgerald
Date: 7/19/99 7:10 AM

Forward Header
Subject: Portland Timeline
Author: BOB WOMBLES at TECHCTR
Date: 7/18/99 8:35 AM

Kevin; I forgot to give you this on Friday. The bottom line is shakedown is
scheduled to begin on 09/26/99, and the vessel is scheduled to be ready for
pitch delivery on 11/01/99. If you need additional information, let me know.

1. Engineering
   - A. Bid — Begin 06/14/98 End 11/29/98
   - B. Dock & Pipeline — Begin 06/14/98 End 07/05/98
   - C. Tank Foundation — Begin 07/12/98 End 11/29/98
   - D. General — Begin 07/12/98 End 11/22/98

2. Permitting
   - A. Joint Permit — Begin 04/27/97 End 01/25/98
   - B. Air Permit — Begin 02/01/98 End 03/28/98
   - C. City of Portland — Begin 09/27/98 End 04/25/99

3. Equipment
   - A. Bid & Order — Begin 02/14/99 End 03/28/99
   - B. Delivery — Begin 03/28/99 End 07/18/99

4. Tank Construction
   - A. Bid & Order — Begin 06/28/98 End 09/13/98
   - B. Design & Fabricate — Begin 09/20/98 End 03/28/99
   - C. Construct — Begin 07/18/99 End 09/05/99

5. Dock Construction
   - A. Bid & Order — Begin 10/25/98 End 11/29/98
   - B. Piling — Begin 01/03/99 End 01/17/99
   - C. Fabricate — Begin 11/29/98 End 02/28/99
   - D. Construct — Begin 01/24/99 End 03/28/99

6. Tank Foundation
   - A. Bid & Order — Begin 02/07/99 End 04/11/99
   - B. Excavation — Begin 04/04/99 End 04/18/99
   - C. Piling — Begin 05/16/99 End 05/30/99
   - D. Concrete — Begin 06/06/99 End 07/18/99

7. Mechanical & Piping
   A. Bid & Order Begin 11/29/98 End 02/14/99
   B. Construct Begin 03/14/99 End 10/03/99

8. Electrical & Instrumentation
   A. Bid Begin 11/29/98 End 01/17/99
   B. Rebid & Order Begin 02/07/99 End 02/21/99
   C. Construct Begin 05/02/99 End 10/24/99

9. Insulation
   A. Bid & Order Begin 03/28/99 End 04/18/99
   B. Insulate Pipes Begin 06/27/99 End 09/26/99
   C. Insulate Tanks Begin 09/05/99 End 10/17/99

10. Shakedown & Start-up Begin 09/26/99 End 10/24/99

11. Ready for Pitch Delivery 11/01/99

To: Dietz, Jim; Fitzgerald, Kevin; MEISINGER, BILL; Stephenson, Jack; Kunkle, John; WOMBLES, BOB; Self, Traci; iskoppers@aol.com at internet
Priority: Normal
Subject: June Liquid Pitch Unloading Project Report

Jim,

Regulatory and Permit Issues

Essentially all of the permits have been issued, with the exception of the structural building permit for the 3 shed buildings in the project. We are awaiting the detail drawings from the mechanical contractor, so that they can be submitted. This should happen with in the next 2 weeks.

The 2 monitoring well's that the ODEQ required close to the tank foundation, were installed during the month.

Cost Analysis

a) budget	$4,310,000
b) spent to date	2,478,200
c) committed to date	4,263,635
d) balance uncommitted	46,365

The last remaining PO to be issued is the insulation, and it should be done next week.

Engineering

The engineering is completed.

Time Line

The mechanical contractor has all of the pipe line built, and they are now placing it onto the permanent pipe supports and foundations. They have about 40% of the hot oil trace lines in place, as well. Plus, they have placed the hot oil heater onto it's foundation. They expect to start the piping work in the hot oil area by the end of July.

The Civil contractor has poured the concrete ring wall, and is stripping the forms today. They still have to build and pour several pipe support foundations and back fill the center of the tank foundation. They expect to be completed with all of their work in another 4 weeks.

The electrical contractor is still laying conduit from the dock end, to the tank end. They have about 60% of this work completed. They have also been doing the grounding work, as needed, with the civil contractor.

The tank builder's are scheduled to start the week of July 19th.

Amos

GL/46116/MENU100PRTJV6 Koppers Industries Inc. Page 2
07/09/99 02:30:13 PM CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
Requested By PATTERSON June 1999

(Full Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jan Amounts	Feb Amounts	Mar Amounts	Apr Amounts	May Amounts	Jun Amounts	Current Y-T-D
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	0	2,880	0	2,880
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	2,880	0	0	2,880
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	1,280	0	0	1,280
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	3,840	0	0	3,840
4210	9270			46		32	RMCAT ENVIRONMENTAL	0	0	0	47,785	0	0	47,785
4210	9270			46		32	RMCAT ENVIRONMENTAL	0	0	0	0	32,632	0	32,632
4210	9270			46		32	ROSE CITY CONTRACTING	0	0	0	0	0	425	425
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	550	0	550
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	649	0	649
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	75	0	75
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	3,989	0	3,989
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	252	0	252
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	26	0	26
4210	9270		1	46			Pr Yr Begin Balance	0	0	0	0	0	0	12,704
4210	9270		1	46		33	CAPITALIZED INTEREST J	0	0	16,068	0	0	0	16,068
4210	9270		1	46		33	CAPITALIZED INTEREST J	0	0	0	0	0	32,029	32,029
4210	9270	10		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	4,750	4,750
4210	9270	10		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	6,115	0	6,115
Total Detail (0010) Unknown								0	0	0	0	6,115	4,750	10,865
4210	9270	823		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	501	0	501
4210	9270	823		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	501	501
Total Detail (0823) Unknown								0	0	0	0	501	501	1,003
4210	9270	824		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	356	356
4210	9270	824		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	461	0	461
Total Detail (0824) Unknown								0	0	0	0	461	356	818
4210	9270	825		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	122	0	122
4210	9270	825		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	95	95
Total Detail (0825) Unknown								0	0	0	0	122	95	217
4210	9270	940		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	427	427
4210	9270	940		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	433	0	433
Total Location (9270) PORTLAND								93,043	9,187	303,783	569,466	276,032	356,527	2,478,200
Total Report								93,043	9,187	303,783	569,466	276,032	356,527	2,478,200

GL/46116/MENU100PRTJV6
07/09/99 02:30:13 PM
Requested By PATTERSON

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
June 1999

(Full Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jan Amounts	Feb Amounts	Mar Amounts	Apr Amounts	May Amounts	Jun Amounts	Current Y-T-D
4210	9270			46			Pr Yr Begin Balance	0	0	0	0	0	0	857,456
4210	9270			46		32	C WARK TRUCKING INC	0	9,187	0	0	0	0	9,187
4210	9270			46		44	CASH RECEIPTS	0	0	0	0	19,623-	0	19,623-
4210	9270			46		32	CHANDLER ELEC INC&TAYL	0	0	0	0	0	29,018	29,018
4210	9270			46		32	CHANDLER ELECTRIC INC	0	0	0	0	0	15,339	15,339
4210	9270			46		32	CHANDLER ELECTRIC INC	0	0	0	10,592	0	0	10,592
4210	9270			46		32	DIVERSIFIED MARINE INC	0	0	0	129,863	0	0	129,863
4210	9270			46		32	DIVERSIFIED MARINE INC	0	0	0	0	0	1,636	1,636
4210	9270			46		32	DIVERSIFIED MARINE INC	64,890	0	0	0	0	0	64,890
4210	9270			46		32	DIVERSIFIED MARINE INC	0	0	0	0	25,973	0	25,973
4210	9270			46		32	GEO ENGINEERS INC	0	0	0	0	0	10,061	10,061
4210	9270			46		32	GEO ENGINEERS INC	0	0	0	0	0	12,523	12,523
4210	9270			46		32	GEO ENGINEERS INC	0	0	0	0	0	1,182	1,182
4210	9270			46		32	GEO ENGINEERS INC	0	0	0	0	0	920	920
4210	9270			46		32	GEO ENGINEERS INC	0	0	2,082	0	0	0	2,082
4210	9270			46		32	HARDER MECHANICAL CONT	0	0	279,300	0	0	0	279,300
4210	9270			46		32	HARDER MECHANICAL CONT	0	0	0	93,100	0	0	93,100
4210	9270			46		32	INTERNATIONAL INSPECTI	0	0	0	0	0	1,238	1,238
4210	9270			46		32	INTERNATIONAL POWER MA	0	0	0	0	0	7,433	7,433
4210	9270			46		32	J CAMERON MCKERNAN	0	0	0	0	0	6,572	6,572
4210	9270			46		32	J CAMERON MCKERNAN	24,936	0	0	0	0	0	24,936
4210	9270			46		32	J CAMERON MCKERNAN	1,860	0	0	0	0	0	1,860
4210	9270			46		32	J CAMERON MCKERNAN	0	0	0	12,492	0	0	12,492
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	60,027	0	0	60,027
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	2,298	0	0	2,298
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	6,333	0	0	0	6,333
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	53,650	53,650
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	56,943	56,943
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	83,892	83,892
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	48,554	0	48,554
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	31,975	0	31,975
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	14,541	0	14,541
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	73,981	0	73,981
4210	9270			46		32	MORSE CONSTRUCTION GRO	0	0	0	181,119	0	0	181,119
4210	9270			46		32	MORSE CONSTRUCTION GRO	0	0	0	0	50,315	0	50,315
4210	9270			46		32	NORTHWEST NATURAL GAS	0	0	0	8,311	0	0	8,311
4210	9270			46		32	P S I ENVIRONMENTAL GE	0	0	0	0	0	2,301	2,301
4210	9270			46		32	P S I ENVIRONMENTAL GE	0	0	0	0	448	0	448
4210	9270			46		32	PERFORMANCE PUMPS INC	0	0	0	0	0	543	543
4210	9270			46		32	PERFORMANCE PUMPS INC	0	0	0	0	0	19,887	19,887
4210	9270			46		31	PORTLAND CITY	0	0	0	0	0	225	225
4210	9270			46		32	PORTLAND CITY	0	0	0	0	0	14,578	14,578
4210	9270			46		31	PORTLAND CITY BUREAU O	1,357	0	0	0	0	0	1,357
4210	9270			46		32	PORTLAND CITY BUREAU O	0	0	0	15,879	0	0	15,879
4210	9270			46		31	PORTLAND CITY BUREAU O	0	0	0	0	1,182	0	1,182

CAPITAL SPENDING

VENDOR	AUDIT #	LEDGER	DETAIL	SUB-DET	LOCATION	PROJECT #	AMOUNT
* TOTAL SPENDING 46							
J. CAMERON MCKERNAN	92700283	4210	0	0	9270	46	6572.00
PSI ENVIRONMENTAL GEOTECH	92700318	4210	0	0	9270	46	2301.00
PERFORMANCE PUMPS, INC.	92700304	4210	0	0	9270	46	19887.00
PERFORMANCE PUMPS, INC.	92700341	4210	0	0	9270	46	543.00
GEOENGINEERS, INC	92700305	4210	0	0	9270	46	1182.00
GEOENGINEERS, INC	92700291	4210	0	0	9270	46	12523.00
GEOENGINEERS, INC	92700330	4210	0	0	9270	46	920.00
GEOENGINEERS, INC	92700331	4210	0	0	9270	46	10061.00
ROSE CITY CONTRACTING	92700340	4210	0	0	9270	46	425.00
MCDOWELL WELDING	92700319	4210	0	0	9270	46	83892.00
MCDOWELL WELDING	92700320	4210	0	0	9270	46	56943.00
MCDOWELL WELDING	92700321	4210	0	0	9270	46	53650.00
DIVERSIFIED MARINE, INC.	92700284	4210	0	0	9270	46	1636.00
INTERNATIONAL POWER MACHI	92700324	4210	0	0	9270	46	7433.00
INTERNATIONAL INSPECTION	92700323	4210	0	0	9270	46	1238.00
CITY OF PORTLAND, LAND US	92700025	4210	0	0	9270	46	225.00
** SUBTOTAL **							259431.00
*** TOTAL ***							259431.00

GL/46116/MENU100PRTJV
06/29/99 11:29:52 AM

Requested By KUNKLE

Page 1

Koppers Industries Inc
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
June 1999

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
4210	9270	All	All	All	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#	Tx#	Comments/Vendor/User	Amounts
4210	9270			46		31	4608	362	PORTLAND CITY	225.00
4210	9270			46		32	18	362	CHANDLER ELEC INC&TAYLOR ELEC	29,018.03
4210	9270			46		32	19	362	CHANDLER ELECTRIC INC	15,339.97
4210	9270			46		32	283	362	J CAMERON MCKERNAN	6,572.00
4210	9270			46		32	284	362	DIVERSIFIED MARINE INC	1,636.00
4210	9270			46		32	291	362	GEO ENGINEERS INC	12,523.00
4210	9270			46		32	304	362	PERFORMANCE PUMPS INC	19,887.00
4210	9270			46		32	305	362	GEO ENGINEERS INC	1,182.00
4210	9270			46		32	318	362	P S I ENVIRONMENTAL GEOTECHNIC	2,301.00
4210	9270			46		32	319	362	MCDOWELL WELDING & PIPEFITTING	83,892.00
4210	9270			46		32	320	362	MCDOWELL WELDING & PIPEFITTING	56,943.00
4210	9270			46		32	321	362	MCDOWELL WELDING & PIPEFITTING	53,650.00
4210	9270			46		32	323	362	INTERNATIONAL INSPECTION	1,238.00
4210	9270			46		32	324	362	INTERNATIONAL POWER MACHINES	7,433.00
4210	9270			46		32	346	362	PORTLAND CITY	14,578.00
4210	9270			46		32	330	362	GEO ENGINEERS INC	920.00
4210	9270			46		32	331	362	GEO ENGINEERS INC	10,061.00
									Total Detail (0000)	317,399.00
									Total Location (9270)	317,399.00
									Total G/L (4210)	317,399.00
									Total Report	317,399.00

Post-it® Fax Note 7671 | Date | # of pages ▶
To Amos | From JM
Co./Dept. | Co.
Phone # | Phone #
Fax # | Fax #

Author: AMOS KAMERER at PITT
Date: 6/4/99 3:57 PM
Priority: Normal
TO: Jim Dietz at PITT
TO: Kevin Fitzgerald at PITT
TO: BILL MEISINGER at TECHCTR
TO: Jack Stephenson at PITT
TO: John Kunkle at PITT
TO: BOB WOMBLES at TECHCTR
TO: Traci Self at PITT
TO: iskoppers@aol.com at internet
Subject: May Progress Report - Liquid Unloading Project
---------- Message Contents ----------

Jim,

Regulatory and Permit Issues

The ODEQ finally issued our Air Containment Discharge Permit on June 1, 1999. This has almost been 2 years in the making. The final permit is essentially what we expected, except that they want us to complete by June 1, 2000 a detailed feasibility study on reducing particulate and VOC emissions from the fume recovery exhaust stack.

The remainder portion of the building permit, covering some of the special structural supports that require detail drawing from the contractor, will be completed by the end of June.

Cost Analysis
---

a) budget	$4,310,000
b) spent to date	2,107,820
c) committed to date	4,237,000
d) balance uncommitted	73,000

Engineering

Other than dealing with new issues as they develop, the engineering is complete.

Time Line

The mechanical contractor has all of the pipe line and pipe bridge foundation supports completed. They have about 70% of the actual pipe line completed and have started on the dock end with the hot oil heat tracing pipe, as well. They are planning to get started on the placement of the new hot oil heater in June.

The civil contractor completed the hot oil heater foundation and all of the pipe supports on the MCC side of the project. They are scheduled to finish the pile driving next Monday, and expect to also start pouring the concrete into the centers of the piles Monday as well; and they expect to be completed with this on Wednesday. The rebar work will start immediately thereafter, and they have scheduled

the concrete foundation pour for Thursday 6/17. 85 truck loads of special concrete will be required, they expect to unload one truck every 5/6 minutes, thus completing in about 8 hours.

The electrical contractor has started to lay the conduit from the dock end, towards the tank end.

The PO for the insulation work will be issued next week.

After our slow start, things are rolling now, and it's pretty exciting.

Amos

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
May 1999

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#	Tx#	Comments/Vendor/User	Amounts
4210	9270			46		31	4607	362	PORTLAND CITY BUREAU OF BLDGS	1,132.00
4210	9270			46		32	228	362	DIVERSIFIED MARINE INC	25,973.00
4210	9270			46		32	231	362	RMCAT ENVIRONMENTAL	32,632.00
4210	9270			46		32	243	362	MORSE CONSTRUCTION GROUP INC	50,315.00
4210	9270			46		32	244	362	MCDOWELL WELDING & PIPEFITTING	14,541.00
4210	9270			46		32	245	362	MCDOWELL WELDING & PIPEFITTING	31,975.00
4210	9270			46		32	246	362	MCDOWELL WELDING & PIPEFITTING	48,554.00
4210	9270			46		32	259	362	P S I ENVIRONMENTAL GEOTECHNIC	448.00
4210	9270			46		32	265	362	MCDOWELL WELDING & PIPEFITTING	73,981.00
4210	9270			46		32	372	1378	PROCESS PLANTS CONSULTANTS	2,880.00
4210	9270			46		44	150		CASH RECEIPTS	19,623.09-
4210	9270			46	6643	32	459	363	CHARLES E NORRIS JR	3,989.00
4210	9270			46	6643	32	459	363	CHARLES E NORRIS JR	75.00
4210	9270			46	6643	32	459	363	CHARLES E NORRIS JR	649.00
4210	9270			46	6643	32	459	363	CHARLES E NORRIS JR	550.00
4210	9270			46	6643	32	459	363	CHARLES E NORRIS JR	26.00
4210	9270			46	6643	32	459	363	CHARLES E NORRIS JR	252.00
									Total Detail (0000)	268,398.91
4210	9270	10		46		55	24		PAYROLL JV By PR/SC/46114/KII	6,115.00
									Total Detail (0010)	6,115.00
4210	9270	823		46		55	24		PAYROLL JV By PR/SC/46114/KII	501.54
									Total Detail (0823)	501.54
4210	9270	824		46		55	24		PAYROLL JV By PR/SC/46114/KII	461.28
									Total Detail (0824)	461.28
4210	9270	825		46		55	24		PAYROLL JV By PR/SC/46114/KII	122.30
									Total Detail (0825)	122.30
4210	9270	940		46		55	24		PAYROLL JV By PR/SC/46114/KII	433.21
									Total Detail (0940)	433.21
									Total Location (9270)	276,032.24
									Total Report	276,032.24

May E.R.

5541

- 5541

$ 270.491

GL/46116/MENU100PRTJV6
06/04/99 06:40:07 PM

Requested By POLLOI

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
May 1999

FAX: B. Messinger
6/29/99

(Full Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Dec Amounts	Jan Amounts	Feb Amounts	Mar Amounts	Apr Amounts	May Amounts	Current Y-T-D
4210	9270			46			Pr Yr Begin Balance	0	0	0	0	0	0	857,456
4210	9270			46		32	AMERICAN HEATING CO	90,114	0	0	0	0	0	0
4210	9270			46		32	AMERICAN HEATING CO	10,230	0	0	0	0	0	0
4210	9270			46		32	APPLIED PROFESSIONAL S	150	0	0	0	0	0	0
4210	9270			46		32	C WARK TRUCKING INC	0	0	9,187	0	0	0	9,187
4210	9270			46		31	CAMPBELL CRANE & RIGGI	560	0	0	0	0	0	0
4210	9270			46		33	CAPITALIZED INTEREST J	7,507	0	0	0	0	0	0
4210	9270			46		44	CASH RECEIPTS	0	0	0	0	0	19,623-	19,623-
4210	9270			46		32	CHANDLER ELECTRIC INC	0	0	0	0	10,592	0	10,592
4210	9270			46		32	DIVERSIFIED MARINE INC	0	0	0	0	0	25,973	25,973
4210	9270			46		32	DIVERSIFIED MARINE INC	0	0	0	0	129,869	0	129,869
4210	9270			46		32	DIVERSIFIED MARINE INC	0	64,890	0	0	0	0	64,890
4210	9270			46		32	DIVERSIFIED MARINE INC	39,000	0	0	0	0	0	0
4210	9270			46		32	GEO ENGINEERS INC	17,378	0	0	0	0	0	0
4210	9270			46		32	GEO ENGINEERS INC	0	0	0	2,082	0	0	2,082
4210	9270			46		32	HARDER MECHANICAL CONT	0	0	0	279,300	0	0	279,300
4210	9270			46		32	HARDER MECHANICAL CONT	0	0	0	0	93,100	0	93,100
4210	9270			46		32	J CAMERON MCKERNAN	0	0	0	0	12,492	0	12,492
4210	9270			46		32	J CAMERON MCKERNAN	0	1,860	0	0	0	0	1,860
4210	9270			46		32	J CAMERON MCKERNAN	0	24,936	0	0	0	0	24,936
4210	9270			46		32	J CAMERON MCKERNAN	34,801	0	0	0	0	0	0
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	73,981	73,981
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	48,554	48,554
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	31,975	31,975
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	14,541	14,541
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	6,333	0	0	6,333
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	2,298	0	2,298
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	60,027	0	60,027
4210	9270			46		32	MORSE CONSTRUCTION GRO	0	0	0	0	181,119	0	181,119
4210	9270			46		32	MORSE CONSTRUCTION GRO	0	0	0	0	0	30,315	30,315
4210	9270			46		32	NORTHWEST NATURAL GAS	0	0	0	0	8,311	0	8,311
4210	9270			46		32	P S I ENVIRONMENTAL GE	0	0	0	0	0	448	448
4210	9270			46		32	PACIFIC BUILDING CONST	13,200	0	0	0	0	0	0
4210	9270			46		32	PORTLAND CITY BUREAU O	20,010	0	0	0	0	0	0
4210	9270			46		31	PORTLAND CITY BUREAU O	0	1,357	0	0	0	0	1,357
4210	9270			46		32	PORTLAND CITY BUREAU O	0	0	0	0	15,879	0	15,879
4210	9270			46		31	PORTLAND CITY BUREAU O	0	0	0	0	0	1,182	1,182
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	0	0	2,880	2,880
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	0	1,280	0	1,280
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	0	3,840	0	3,840
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	0	2,880	0	2,880

(Full Version)	G/L 4210	Loc 9270	Dat All	S-Dat All	Dept 46	Emp All	Doc All	JV# All

G/L	Loc	Dat	S-Dat	Dept	Emp	Doc	Vendor/Comments/User	Dec Amounts	Jan Amounts	Feb Amounts	Mar Amounts	Apr Amounts	May Amounts	Current Y-T-D
4210	9270			46		33	REVERSE JV-12-210-13 J	7,307-	0	0	0	0	0	0
4210	9270			46		32	RMCAT ENVIRONMENTAL	0	0	0	0	47,785	0	47,785
4210	9270			46		32	RMCAT ENVIRONMENTAL	0	0	0	0	0	32,632	32,632
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	0	3,989	3,989
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	0	649	649
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	0	75	75
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	0	252	252
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	0	26	26
4210	9270			46	6643	32	CHARLES E NORRIS JR	0	0	0	0	0	550	550
4210	9270		1	46			Pr Yr Begin Balance	0	0	0	0	0	0	12,704
4210	9270		1	46		33	CAPITALIZED INTEREST J	0	0	0	16,068	0	0	16,068
4210	9270		1	46		33	CAPITALIZED INTEREST J	7,507	0	0	0	0	0	0
4210	9270	10		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	6,115	6,115
TOTAL DETAIL (0010) Unknown								0	0	0	0	0	6,115	6,115
4210	9270	823		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	301	301
TOTAL DETAIL (0823) Unknown								0	0	0	0	0	301	301
4210	9270	824		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	461	461
TOTAL DETAIL (0824) Unknown								0	0	0	0	0	461	461
4210	9270	825		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	122	122
TOTAL DETAIL (0825) Unknown								0	0	0	0	0	122	122
4210	9270	940		46		55	PAYROLL JV By PR/SC/46	0	0	0	0	0	433	433
TOTAL DETAIL (0940) Unknown								0	0	0	0	0	433	433
TOTAL LOCATION (9270) PORTLAND								232,950	93,043	9,187	303,783	569,466	276,032	2,121,672
TOTAL REPORT								232,950	93,043	9,187	303,783	569,466	276,032	2,121,672

Author: Bill Meisinger at techctr
Date: 6/29/99 9:45 AM
Priority: Normal
TO: Amos Kamerer at PITT
Subject: Liquid Pitch Budget

---------- Message Contents ----------

Amos,

I have updated the spreadsheet budget. Budget figures are original. I can not locate Jim's "revised budget" but expenditures are correct. If you have a copy of what Jim adjusted back in Jan. please fax or e-mail, I will continue to look.
Treat the attached spreadsheet as a draft for June's report.
I have added in Petrochem's price for insulation. So there may be some relief there. I have added "to committ" figures for foundations to cover anticipated extras. The mechanical "to committ" figure is for McDowell change orders to date. I have not figured in any potential savings from McDowell or have not added any slack for Chandler.
Siol disposal cost includes payment to NW Natural for soil tests.
I do not have an up to date figure on Harder"s extras or the cost of the wells. Please fax those figures.
I would like to clean up the numbers to issue next Tues.

Bill

Author: <ISKOPPERS@aol.com> at internet
Date: 6/22/99 2:02 PM
Priority: Normal
TO: BILL MEISINGER at TECHCTR
TO: Jim Dietz at PITT
TO: Amos Kamerer at PITT
Subject: Pile cap curing
---------- Message Contents ----------

Bill,

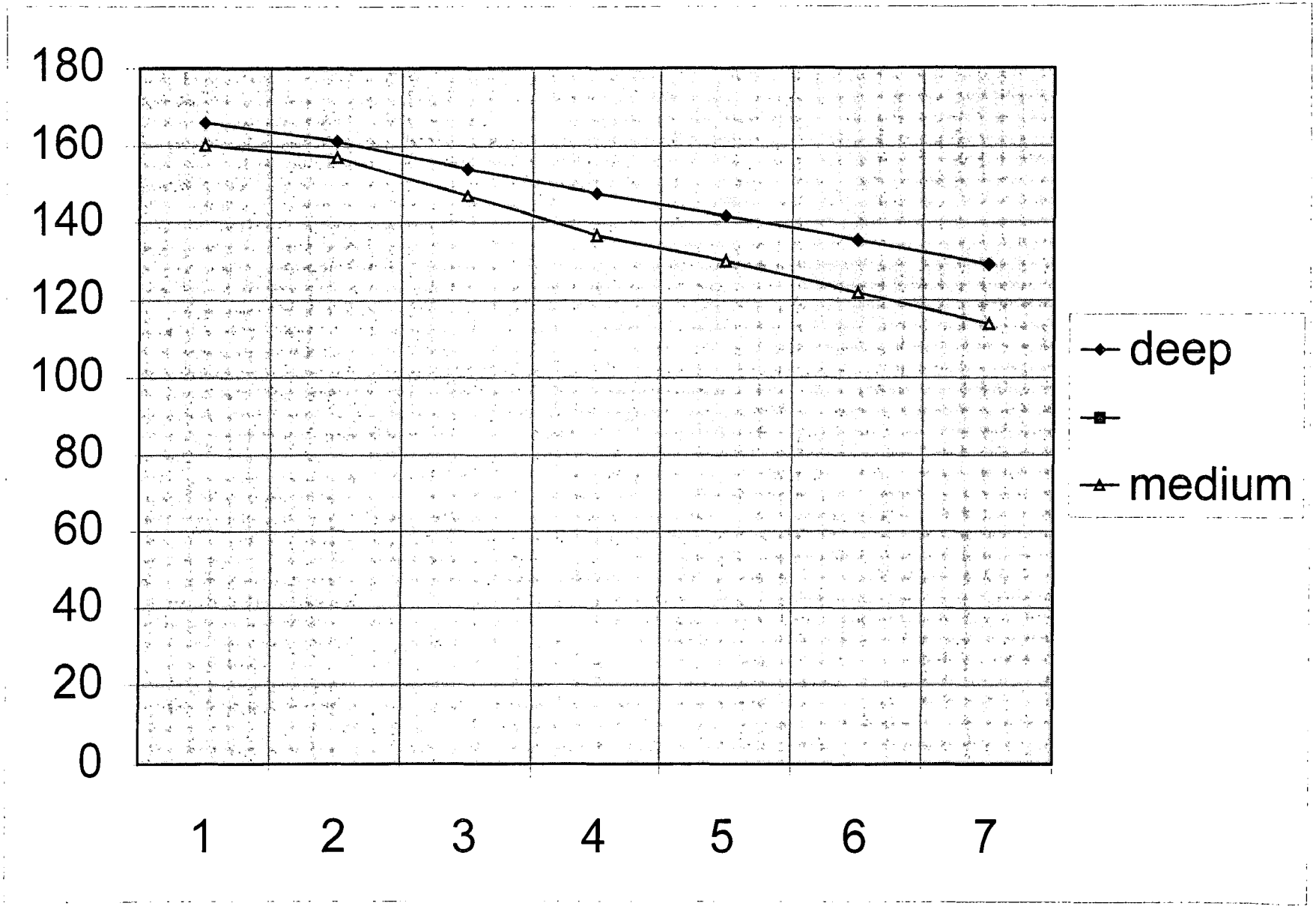
The attached data includes morning temperature readings for the first four days, along with forecasted temperatures through Friday. The extended weather forecast shows highs of around 70 with lows around 50 for Thursday through Saturday. The information provided by CTL allows for a 64 degree differential. Therefor the insulation and forms can be removed when the internal concrete temperature is less than 124degrees. According to my forecasts that would not be achieved until late Friday or early Saturday.

Harder needs one full day to remove all of the forms, and two days to fill in the area for drilling

In order for the ODEQ wells to be completed without interfering with the schedule, work must begin on them Monday the 28th.

My plan is to have Harder remove the forms in the Northwest quadrant only, on Thursday and proceed with the back fill operations immediately. I will have them insulate any exposed areas as they go. This may require some overtime to complete the work on time, But I think we have to give it consideration.

Bill, please advise me on this matter ASAP.



Koppers019393

Author: <ISKOPPERS@aol.com> at internet
Date: 6/25/99 2:27 PM
Priority: Normal
TO: Amos Kamerer at PITT
Subject: project update
---------- Message Contents ----------

Portland Liquid Pitch Project
Project Update
June 25, 1999

Status of Civil Work:
The concrete curing temperatures for the pile cap were monitored through the week by a set of type J thermocouples inserted into the concrete during the pour. By the morning reading on Friday 6/25/99 the temperature differential to the average air temperature was reduced to less than 64 degrees. Based on the procedure provided by CTL this was sufficient to remove the insulation and forms. This work is in process as I write. The anchor bolts were all installed in the ring wall re-bar structure and leveled. The pour for the ring wall is scheduled to take place on Friday, July 2nd.

Status of Mechanical Work:
The pitch line fabrication is currently up to the south side of the pitch building. McDowell is currently fabricating the bridge piece. A photo of this work is included in the attachments. The oil heater has been place on its pad and is ready for piping to begin.

Status of Electrical Work:
Chandler electric is continuing to make good progress installing conduit. They are currently up to the second pipe bridge, and are gaining on the pipe fitters. Dave has presented three change orders; one for the work to move conduit to allow access for drilling the wells requested by the DEQ, one for changes on the dock, and one for work requested by TJ which I have not yet determined if it applies to the project or not. I have not yet received the schedule or costs breakdown, which we are expecting. Dave assures me however that he is working on them.

ODEQ Well:
The are north and northwest of the tank site have been prepared for drilling the wells. Change orders will be forthcoming for this work, which includes:
+ Removal of three conduits from access area, and installation of underground conduits to replace them.
+ Removal of 3" steam line and fabrication of spool piece for reinstallation.
+ Asbestos remediation for one section of steam pipe approximately 30' long
+ Back-filling and grading the area to support the weight of the drilling rig.

I expect the total for the change orders to be around $6000 with the majority of the charges being for grading.

Charlie Norris
Construction Manager

Author: AMOS KAMERER at PITT
Date: 5/7/99 3:27 PM
Priority: Normal
TO: Jim Dietz at PITT
TO: Kevin Fitzgerald at PITT
TO: BILL MEISINGER at TECHCTR
TO: Jack Stephenson at PITT
TO: John Kunkle at PITT
TO: BOB WOMBLES at TECHCTR
TO: Traci Self at PITT
TO: iskoppers@aol.com at internet
Subject: April Liquid Pitch project

---------- Message Contents ----------

Jim,

Regulatory and Permit Issues

The ODEQ still has not issued our air permit. The permit writer that is handling this, told me this week that she is still way behind and that at the earliest she would have it finished in 4 weeks, possibly as many as 6 weeks. At least this month, she didn't refer to "worker overload" as the reason, for her excuse. The delay in this permit does not effect anything that we are doing, or that we plan to do in the coming months.

We received the building permit for the tank and pipe line portion of the project during the month; with the exception of a few structural items that needed to be detailed by the contractors. This will be done in the next few weeks, long before that work starts

Coat Analysis

a) budget	$4,310,000
b) spent to date	1,837,329
c) committed to date	3,887,000
d) balance uncommitted	423,000

Engineering

Virtually all of the engineering is done. Cameron Mckernan, the local engineer that is the engineer of record for the project and the permitting process, handles any contractor questions as they develop. And, consults with myself or Bill, on an as needed basis.

Time Line

The mechanical contractor will have all of the pipe line support foundations completed from the dock to the tank area, with in the next 3 weeks.

The design change for these foundations, that they suggested as a cost savings, have worked out very well. This should turn out to be very

nice looking, when completed.

They have also started to install the actual pipe line from the dock end, and now have it installed on the dock and the bridge, to the shore. Their portion of their work is on schedule, or even ahead of schedule.

The civil contractor has completed the excavation of the new tank area, including the rock back fill and compacting. They removed a little over 2200 tons of petroleum contaminated soils that were had to be disposed. Pile driving is scheduled to start next Wednesday May 13th.

They have also started work on the foundation for the new hot oil heater and several of the pipe foundation supports, in and around that area.

The PO for the electrical work should be issued in the next couple of weeks.

Bids for the insulation works are due back by 5/21/99.

Amos Kamerer

	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
(Full Version)	4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Nov Amounts	Dec Amounts	Jan Amounts	Feb Amounts	Mar Amounts	Apr Amounts	Current Y-T-D
4210	9270			46			Pr Yr Begin Balance	0	0	0	0	0	0	857,456
4210	9270			46		32	AIR COMPLIANCE CONSULT	1,134	0	0	0	0	0	0
4210	9270			46		32	AIR COMPLIANCE CONSULT	2,813	0	0	0	0	0	0
4210	9270			46		32	AMERICAN HEATING CO	0	90,114	0	0	0	0	0
4210	9270			46		32	AMERICAN HEATING CO	0	10,230	0	0	0	0	0
4210	9270			46		32	APPLIED PROFESSIONAL S	0	150	0	0	0	0	0
4210	9270			46		32	C WANK TRUCKING INC	0	0	0	9,187	0	0	9,187
4210	9270			46		31	CAMPBELL CRANE & RIGGI	0	560	0	0	0	0	0
4210	9270			46		33	CAPITALIZED INTEREST J	0	7,507	0	0	0	0	0
4210	9270			46		32	CHANDLER ELECTRIC INC	0	0	0	0	0	10,592	10,592
4210	9270			46		32	CHEMTECH CONSULTANTS I	38,901	0	0	0	0	0	0
4210	9270			46		32	CHEMTECH CONSULTANTS I	44,414	0	0	0	0	0	0
4210	9270			46		32	DIVERSIFIED MARINE INC	0	0	0	0	0	129,863	129,863
4210	9270			46		32	DIVERSIFIED MARINE INC	0	39,000	0	0	0	0	0
4210	9270			46		32	DIVERSIFIED MARINE INC	0	0	64,890	0	0	0	64,890
4210	9270			46		32	GEO ENGINEERS INC	0	17,378	0	0	0	0	0
4210	9270			46		32	GEO ENGINEERS INC	6,675	0	0	0	0	0	0
4210	9270			46		32	GEO ENGINEERS INC	0	0	0	0	2,082	0	2,082
4210	9270			46		32	HARDER MECHANICAL CONT	0	0	0	0	279,300	0	279,300
4210	9270			46		32	HARDER MECHANICAL CONT	0	0	0	0	0	93,100	93,100
4210	9270			46		32	J CAMERON MCKERNAN	0	0	24,936	0	0	0	24,936
4210	9270			46		32	J CAMERON MCKERNAN	0	0	1,860	0	0	0	1,860
4210	9270			46		32	J CAMERON MCKERNAN	0	34,801	0	0	0	0	0
4210	9270			46		32	J CAMERON MCKERNAN	17,427	0	0	0	0	0	0
4210	9270			46		32	J CAMERON MCKERNAN	0	0	0	0	0	12,492	12,492
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	6,333	0	6,333
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	2,298	2,298
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	60,027	60,027
4210	9270			46		32	MORSE CONSTRUCTION GRO	0	0	0	0	0	181,119	181,119
4210	9270			46		32	PACIFIC BUILDING CONST	0	13,200	0	0	0	0	0
4210	9270			46		32	PORTLAND CITY BUREAU O	0	20,010	0	0	0	0	0
4210	9270			46		32	PORTLAND CITY BUREAU O	0	0	0	0	0	15,879	15,879
4210	9270			46		31	PORTLAND CITY BUREAU O	0	0	1,357	0	0	0	1,357
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	0	0	1,280	1,280
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	0	0	3,840	3,840
4210	9270			46		32	PROCESS PLANTS CONSULT	0	0	0	0	0	2,880	2,880
4210	9270			46		32	PROCESS PLANTS CONSULT	320	0	0	0	0	0	0
4210	9270			46		33	REVERSE JV-12-210-13 J	0	7,307-	0	0	0	0	0
4210	9270			46		32	RMCAT ENVIRONMENTAL	0	0	0	0	0	47,785	47,785
4210	9270		1	46			Pr Yr Begin Balance	0	0	0	0	0	0	12,704
4210	9270		1	46		33	CAPITALIZED INTEREST J	0	0	0	0	16,068	0	16,068

- Pittsburgh check
* What are these

Post-it® Fax Note 7671	Date 5/10/99	# of pages ▶ 1
To J. Kunkle	From Amos	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
April 1999

	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
(Full Version)	4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Nov Amounts	Dec Amounts	Jan Amounts	Feb Amounts	Mar Amounts	Apr Amounts	Current Y-T-D
4210	9270	1	46	33			CAPITALIZED INTEREST J	0	7,507	0	0	0	0	0
TOTAL LOCATION (9270) PORTLAND								111,684	232,950	93,043	9,187	303,783	561,155	1,837,329
TOTAL REPORT								111,684	232,950	93,043	9,187	303,783	561,155	1,837,329

$344,634

$967,168

$1824634

$12,705

$1,311,802

PRIOR Y/E + $857,456

$2,169,258

KOPPERS INDUSTRIES INC.
CARBON MATERIALS AND CHEMICALS
ACCOUNTS PAYABLE DISTRIBUITION BY GROUP
APRIL 1999

LOCATION: 9270 PORTLAND

NAME	BATCH NO	AUDIT/ CHECK NO	G/L	DET	SUB DET	LOC	DEPT	TAX CODE	EMPL NO	PURCHASE/ORDER NUMBER	PO ORDER ADD. NO.	QUANTITY	UNIT CODE	AMOUNT DISTRIBUTED
CHANDLER ELEC INC	000	92700176	4210			9270	46	362						10,592.00
MORSE CONST GROUP	000	92700168	4210			9270	46	362						181,119.75
NORTHWEST NATURAL	000	92700218	4210			9270	46	362						8,311.00
MCDOWELL WELDING	000	92700193	4210			9270	46	362						60,027.00
MCDOWELL WELDING	000	92700215	4210			9270	46	362						2,298.00
DIVERSIFIED MARINE	000	92700169	4210			9270	46	362						129,863.00
HARDER MECH CONTR	000	92700214	4210			9270	46	362						93,100.00
RMCAT ENVIRO	000	92700210	4210			9270	46	362						47,785.00
PORTLAND CITY	000	48390271	4210			9270	46	365						15,879.00
										DEPARTMENT TOTAL				569,466.75
PETROCHEM INSULATI	000	92700181	4210			9270	47	362						4,800.00
										DEPARTMENT TOTAL				4,800.00
										DETAIL TOTAL				574,266.75
										GENERAL LEDGER TOTAL				574,266.75
PORT OF LONGVIEW	000	92700185	5050	3		9270		362						104,250.00
PORT OF LONGVIEW	000	92700184	5050	3		9270		362						585.00
PORT OF LONGVIEW	000	92700186	5050	3		9270		362						1,138.00
TAYLOR TRUCKING LL	000	92700190	5050	3		9270		362						11,318.00
										DEPARTMENT TOTAL				117,291.00
										DETAIL TOTAL				117,291.00
SEAPORT MARINE SUR	000	30243599	5050	4		9270		362						330.00
MYERS Y CO INC F W	000	30243598	5050	4		9270		362						402.00
MYERS Y CO INC F W	000	92700166	5050	4		9270		362						74.00
										DEPARTMENT TOTAL				806.00
										DETAIL TOTAL				806.00
										GENERAL LEDGER TOTAL				118,097.00
KAISER FOUND HEAL	000	92700178	5556			9270		362						308.00
										DEPARTMENT TOTAL				308.00
										DETAIL TOTAL				308.00
										GENERAL LEDGER TOTAL				308.00
										LOCATION TOTAL				872,059.75

FROM :KII TAR & CHEMICAL 412 227 2202 1999-05-03 10:08 #884 P.03/03

Koppers019399

LOCATION: 9270 PORTLAND

NAME	BATCH NO	AUDIT/ CHECK NO	G/L	DET	SUB DET	LOC	DEPT	TAX CODE	EMPL NO	PURCHASE/ORDER NUMBER	PO ORDER ADD. NO.	QUANTITY	UNIT CODE	AMOUNT DISTRIBUTED
CASE CREDIT CORP	000	92700195	305	975		9270	925	362						1,938.00
									DEPARTMENT TOTAL					1,938.00
									DETAIL TOTAL					1,938.00
									GENERAL LEDGER TOTAL					58,172.00
0000000000	016	9501	874	401		9270	925	8362						2,803.00
									DEPARTMENT TOTAL					2,803.00
									DETAIL TOTAL					2,803.00
TITAN RAIL SERVICE	000	92700205	874	404		9270	1	362						316.00
									DEPARTMENT TOTAL					316.00
									DETAIL TOTAL					316.00
									GENERAL LEDGER TOTAL					3,119.00
SEAPORT MARINE SUR	000	30243599	1745			9270		362						330.00
PORT OF LONGVIEW	000	92700184	1745			9270		362						585.00
PORT OF LONGVIEW	000	92700185	1745			9270		362						104,250.00
PORT OF LONGVIEW	000	92700186	1745			9270		362						1,138.00
MYERS V CO INC F W	000	92700166	1745			9270		362						74.00
MYERS V CO INC F W	000	30243598	1745			9270		362						402.00
TAYLOR TRUCKING LL	000	92700190	1745			9270		362						11,318.00
									DEPARTMENT TOTAL					118,097.00
									DETAIL TOTAL					118,097.00
									GENERAL LEDGER TOTAL					118,097.00
PROCESS PLANTS	000	48390451	4210			9270	46	1372						2,880.00
PROCESS PLANTS	000	48390223	4210			9270	46	1372						1,280.00
PROCESS PLANTS	000	48390497	4210			9270	46	132						3,840.00
MCKERNAN	000	92700172	4210			9270	46	362						12,492.00

FROM :KII TAR & CHEMICAL 412 227 2202 1999-05-03 10:08 #884 P.02/03

Koppers019400

CAPITAL SPENDING

VENDOR	AUDIT #	LEDGER	DETAIL	SUB-DET	LOCATION	PROJECT #	AMOUNT
* TOTAL SPENDING 46							
J. CAMERON MCKERNAN	92700172	4210	0	0	9270	46	12492.00
CHANDLER ELECTRIC, INC.	92700176	4210	0	0	9270	46	10592.00
MORSE CONSTRUCTION GROUP,	92700168	4210	0	0	9270	46	181119.75
NORTHWEST NATURAL GAS COM	92700218	4210	0	0	9270	46	8311.00
MCDOWELL WELDING	92700193	4210	0	0	9270	46	60027.00
MCDOWELL WELDING	92700215	4210	0	0	9270	46	2298.00
DIVERSIFIED MARINE, INC.	92700169	4210	0	0	9270	46	129863.00
HARDER MECANICAL CONTRACT	92700214	4210	0	0	9270	46	93100.00
RMCAT ENVIRMENTAL	92700210	4210	0	0	9270	46	47785.00
** SUBTOTAL **							545587.75
* TOTAL SPENDING 47							
PETROCHEM INSULATION INC.	92700181	4210	0	0	9270	47	4800.00
** SUBTOTAL **							4800.00
*** TOTAL ***							550387.75

Author: AMOS KAMERER at PITT
Date: 5/17/99 7:09 AM
Priority: Normal
TO: Bill Meisinger at TECHCTR
Subject: Re[2]: April charges

---------- Message Contents ----------

Bill,

You did mention about Ken, but I don't remember Process Plants Consultants. Also, based on what you told me about Ken leaving, I'm figuring this will be the last of these charges.

Amos

---------- Reply Separator ----------

Subject: Re: April charges
Author: Bill Meisinger at techctr
Date: 5/16/99 8:58 PM

Amos,

These are engineering charges for Ken Jones who was working as a temporary employee contracted through PPC. I thought I had mentioned it to you. Probably a crs on your part or mine.

Bill

---------- Reply Separator ----------

Subject: April charges
Author: AMOS KAMERER at PITT
Date: 5/14/99 2:54 PM

Bill,

There were 3 charges to the liquid capital in April from "process Plants Consultants" for the following amounts:

$1280, $3840 and $2880.

Do you know what these are for? John said that he doesn't know what they are, but is looking into it.

Amos

PS: I over nighted the $19,623.09 permit refund check to John today. I swore him to secrecy about this money, as this will be the only contingency money we will have on this project. Ha! Ha!

Author: AMOS KAMERER at PITT
Date: 4/7/99 6:31 PM
Priority: Normal
TO: Kevin Fitzgerald at PITT
TO: Jim Dietz at PITT
TO: BILL MEISINGER at TECHCTR
TO: John Kunkle at PITT
TO: Traci Self at PITT
TO: BOB WOMBLES at TECHCTR
Subject: March Liquid Project Report

---------- Message Contents ----------

Kevin,

Regulatory Issues

ODEQ has not issued our air permit to date, and according to our permit writer it is simply because of worker overload, it should be done by the end of April.

Worker overload, what's that? This is my humorous editorial comment for the month!

Cost Analysis

a) budget	$4,310,000
b) spent to date	1,260,105
c) committed to date	3,887,000
d) balance uncommitted	423,000

Time line, engineering and permits

The pier/dock work is essentially completed, with just a couple of things to done.

The tank/mechanical permit with the city of Portland is still under review, the foundation portion of the permit is expected to be issued early next week.

The electrical permit will be applied for after the award of the PO to the contractor, pending the contractors bond information. This is not any kind of a delay problem.

The Mechanical contractor has been on site for several weeks now; they have laid out the pipe line support foundations and are working on those at this time. Which means that they are driving the foundation "stake" piles at this time, for these foundations. Plus, they have started to build the pipe line, from the dock end towards the tank end.

The big issue is the decision by our landlord, NW Natural that we must now remove all of the excavation soil from the site. The analysis of the soil's is in process at this time, with the outcome to be known by the end of this week.

Operational Issues

We have finished the relocation of the old shop, to a couple of our existing buildings on the site. My guy's have done a heck of a job on this project, which you will see on your next visit. They all deserve a lot of praise for what they did on this project.

Amos

KOPPERS INDUSTRIES, INC. / PORTLAND PLANT
LIQUID PITCH FACILITY
PROJECT STATUS

April 1, 1999

Engineering

All design engineering is completed. PLC programming and operating procedures remain.

Permitting

Oregon DEQ air permit remains to be issued. All information requested by ODEQ has been supplied and the public comment period has been completed. The permit is expected by the end of April.

The tank, mechanical and civil work permit application was submitted mid December to the City of Portland. The permit has yet to be issued but is expected the week of April 5.

The electrical building permit requires the electrical contractor to be named on the application. The electrical package will be submitted after award of the electrical installation contract which should occur the week of April 5.

Purchasing

The civil work has been awarded to Harder and work will commence the week of April 5. The mechanical and piping has been awarded to McDowell Welding. The electrical contract will be awarded to Chandler Electric pending completion of performance bond details.
Equipment is out for bid.

Construction

Diversified Marine, Inc has completed the dock modification work.
Site dismantling is complete. Site layout of pipeline is complete. Shop fabrication and delivery of some materials has started.
Excavation for the tank foundation will begin after soil contamination testing is completed during week of April 5.

04/05/99 WAM

Budget

Approved	Committed	Yet to Commit	Est. Final Cost
$4,310,000	$3,887,000	$713,000	$4,600,000

04/05/99 WAM

GL/46116/MENU100PRTJV6
04/01/99 07:35:08 AM

Requested By KUNKLE

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
March 1999

(Full Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Oct Amounts	Nov Amounts	Dec Amounts	Jan Amounts	Feb Amounts	Mar Amounts	Current Y-T-D
4210	9270			46			Pr Yr Begin Balance	0	0	0	0	0	0	857,456
4210	9270			46		32	AIR COMPLIANCE CONSULT	1,998	0	0	0	0	0	0
4210	9270			46		32	AIR COMPLIANCE CONSULT	0	1,134	0	0	0	0	0
4210	9270			46		32	AIR COMPLIANCE CONSULT	0	2,813	0	0	0	0	0
4210	9270			46		32	AMERICAN HEATING CO	0	0	90,114	0	0	0	0
4210	9270			46		32	AMERICAN HEATING CO	0	0	10,230	0	0	0	0
4210	9270			46		32	APPLIED PROFESSIONAL S	0	0	150	0	0	0	0
4210	9270			46		32	C WARK TRUCKING INC	0	0	0	0	9,187	0	9,187
4210	9270			46		31	CAMPBELL CRANE & RIGGI	0	0	560	0	0	0	0
4210	9270			46		33	CAPITALIZED INTEREST J	0	0	7,507	0	0	0	0
4210	9270			46		32	CHEMTECH CONSULTANTS I	0	38,901	0	0	0	0	0
4210	9270			46		32	CHEMTECH CONSULTANTS I	0	44,414	0	0	0	0	0
4210	9270			46		32	CHEMTECH CONSULTANTS I	90,706	0	0	0	0	0	0
4210	9270			46		32	DIVERSIFIED MARINE INC	0	0	0	64,890	0	0	64,890
4210	9270			46		32	DIVERSIFIED MARINE INC	0	0	39,000	0	0	0	0
4210	9270			46		32	GEO ENGINEERS INC	0	0	17,378	0	0	0	0
4210	9270			46		32	GEO ENGINEERS INC	0	6,675	0	0	0	0	0
4210	9270			46		32	GEO ENGINEERS INC	8,282	0	0	0	0	0	0
4210	9270			46		32	GEO ENGINEERS INC	0	0	0	0	0	2,082	2,082
4210	9270			46		32	HARDER MECHANICAL CONT	0	0	0	0	0	279,300	279,300
4210	9270			46		32	J CAMERON MCKERNAN	0	0	0	1,860	0	0	1,860
4210	9270			46		32	J CAMERON MCKERNAN	0	0	0	24,936	0	0	24,936
4210	9270			46		32	J CAMERON MCKERNAN	27,106	0	0	0	0	0	0
4210	9270			46		32	J CAMERON MCKERNAN	0	17,427	0	0	0	0	0
4210	9270			46		32	J CAMERON MCKERNAN	0	0	34,801	0	0	0	0
4210	9270			46		32	MCDOWELL WELDING & PIP	0	0	0	0	0	6,333	6,333
4210	9270			46		32	PACIFIC BUILDING CONST	0	0	13,200	0	0	0	0
4210	9270			46		31	PORTLAND CITY BUREAU O	1,495	0	0	0	0	0	0
4210	9270			46		32	PORTLAND CITY BUREAU O	0	0	20,010	0	0	0	0
4210	9270			46		31	PORTLAND CITY BUREAU O	0	0	0	1,357	0	0	1,357
4210	9270			46		32	PROCESS PLANTS CONSULT	0	320	0	0	0	0	0
4210	9270			46		33	REVERSE JV-12-210-13 J	0	0	7,507-	0	0	0	0
4210	9270	1		46			Pr Yr Begin Balance	0	0	0	0	0	0	12,704
4210	9270	1		46		33	CAPITALIZED INTEREST J	0	0	7,507	0	0	0	0
TOTAL LOCATION (9270) PORTLAND								129,587	111,684	232,950	93,043	9,187	287,715	1,260,105
TOTAL REPORT								129,587	111,684	232,950	93,043	9,187	287,715	1,260,105

Post-it® Fax Note 7671 | Date | # of pages ▶ 1
To Amos | From JOHN
Co./Dept. | Co.
Phone # | Phone #
Fax # | Fax #

Author: AMOS KAMERER at PITT
Date: 3/5/99 1:45 PM
Priority: Normal
TO: Kevin Fitzgerald at PITT
TO: Jim Dietz at PITT
TO: BILL MEISINGER at TECHCTR
TO: John Kunkle at PITT
TO: Traci Self at PITT
TO: BOB WOMBLES at TECHCTR
Subject: February Liquid Unloading Project Report
---------- Message Contents ----------

Kevin,

Regulatory Issues

The ODEQ has put out for public comment, the proposed air permit for the terminal, comments are due 3/11. Traci will be sending our comments next week.

Our new NPDES permit has been issued and runs through 1/31/04. The perimeters are the same as the old permit.

Cost Analysis
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a) budget	$4,310,000
b) spent to date	999,182
c) committed to date	3,425,836
d) balance uncommitted	884,164

Time line, engineering and permits

The pier/dock work portion of the project is well underway. The pier/dock modifications have been completed, all that remains is the new bridge from the shore, to the east dolphin of the pier. This should all be completed within the next 45 days.

The city is still reviewing the permit application for the balance of the work. I was told today that the structural review of the application will be complete early next week, thus, we are hoping to have the permit issued by 3/19.

The civil contractor has already brought in their trailer and other equipment. They have been doing their line markings on the ground for the foundation work that is to be done. The steel piles have been produced and are in Portland, ready to go. Thus, as soon as the permit is issued, they are ready to get started.

The tank builder also advises that they are ready to go, when the foundation is ready. The steel has been purchased and is on hand.

The PO for the mechanical work has been issued, so they too are getting started, while waiting for the permit.

Operational Issues

Our people are working hard to clean out the old shop, and move into the alternate quarters that we have developed. We purchased two 8' x 8' x 40' containers for storage. We are cleaning out the old still room, removing all of the old instrumentation panels, etc.. One side will be a small shop and the other side will be tool storage. We have converted the old concrete building that sits behind the melter into another small shop area, with most of the tank car repair equipment going in here.

Amos

GL/46116/MENU100PRTJV
03/01/99 10:10:57 AM

Requested By KUNKLE

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
February 1999

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#	Tx#	Comments/Vendor/User	Amounts
4210	9270			46	32	101	362		C WARK TRUCKING INC	9,187.00
									Total Detail (0000)	9,187.00
									Total Location (9270)	9,187.00
									Total Report	9,187.00

+ 989,995

999,182

Amos/Bill

FEB CAP Ex ACTIVITY

Completed TAN 2,462,526

Mechanical 958,310

3,425,936

Author: AMOS KAMERER at PITT
Date: 2/5/99 8:02 AM
Priority: Normal
TO: Kevin Fitzgerald at PITT
TO: BILL MEISINGER at TECHCTR
TO: JIM DIETZ at TECHCTR
TO: John Kunkle at PITT
TO: Traci Self at PITT
TO: BOB WOMBLES at TECHCTR
Subject: January Liquid Pitch Unloading Project Report

---------- Message Contents ----------

Kevin,

Regulatory Issues

The ODEQ advises that the 30 day public notice for our air permit will be issued on February 11th. If there are no significant comments received within this time frame, the permit should be issued by the end of March.

The 30 day public notice ended on January 29th for our NPDES permit renewal. My contact at the ODEQ is out this week, so I have not been able to get an update, but because the permit was the same as our old one, I do not expect any problems.

Cost Analysis

a) budget	$4,638,000
b) spent to date	951,323
c) committed to date	2,467,526
d) balance uncommitted	2,170,474

Time line, engineering and permits

The dock/pier modifications portion of the project is well under way. The piling have been driven in the river and the work has started on the fabrication to make these into 2 bents that will support the new bridge. The shore side bridge foundation is scheduled to be poured next week. The new center span of the dock has been fabricated and is now being galvanized. All of this work should be complete by the end of next month.

The city is still reviewing the permit application for the balance of the work and we expect that it will be another 4 to 5 weeks before the permit is issued.

The PO for the civil work has been placed, and the contractor has ordered the 216 pilings needed for the tank foundation. Other PO's for the mechanical and the electrical work will be issued in the next couple of weeks.

Operational Issues

We are working on the relocation of our shop, other wise there is nothing to report.

Amos

GL/46116/MENU100PRTJV
02/01/99 02:24:10 PM

Requested By KUNKLE

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
January 1999

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#	Tx#	Comments/Vendor/User	Amounts
4210	9270			46		31	3582	362	PORTLAND CITY BUREAU OF BLGDS	1,357.00 *
4210	9270			46		32	14	362	J CAMERON MCKERNAN	1,860.00 *
4210	9270			46		32	15	362	J CAMERON MCKERNAN	24,936.00 *
4210	9270			46		32	42	362	DIVERSIFIED MARINE INC	64,890.00 *
									Total Detail (0000)	93,043.00
									Total Location (9270)	93,043.00
									Total Report	93,043.00

93,043

Post-It™ brand fax transmittal memo 7671 | # of pages ▸ 1

To Amos	From [signature]
Co.	Co.
Dept. JAN ACTIVITY	Phone #
Fax #	Fax #

Budget $4,638,000

Committed - + 931,000 (civil), − 105,000 (shop), + 25,000 (cam) = 851,000 = 2,467,526

Author: AMOS KAMERER at PITT
Date: 1/6/99 3:09 PM
Priority: Normal
TO: Kevin Fitzgerald at PITT
TO: BILL MEISINGER at TECHCTR
TO: JIM DIETZ at TECHCTR
TO: John Kunkle at PITT
TO: Traci Self at PITT
TO: BOB WOMBLES at TECHCTR
Subject: December Liquid Pitch Unloading Project Report
---------- Message Contents ----------

Kevin,

Regulatory Issues

Traci's recent report to you covered all of the details on the air permit and NPDES permit matters.

Cost Analysis
---

a) budget	$4,300,000
b) spent to date	858,280
c) committed to date	1,616,526
d) balance uncommitted	2,693,474

Time Line, Engineering and Permits

The permit for phase 1 of the project was issued on 12/23/98, this covers the dock/pier work modifications. This work has started, the new access road to the new bridge has been completed. The river work, the driving of 5 new pilings into the river, is scheduled for next week. This is the work that needed to be completed by the end of January. Fabrication of the new bridge and the new center span on the pier has started. The contractor advises that they expect to have all of this work completed in March.

The permit for the balance of the work on the project was submitted to the city on 12/23/98 and it is expected that it will take 60 days or so, for the approval of this application.

Contractor bids are due this Friday for the civil, mechanical and electrical work. Engineering will need at least 1 week to review these bids, so the earliest that PO's could be issued would be the week of January 18th. This would then give the successful contractors 6 weeks or so, prior to the actual starting of the work, after the permits are issued, to place orders and to start the fabrication of materials needed for the project.

Operational Issues

No problems to report at this time.

Other Issues

We finally received formal approval from Pacific Northern Oil for the modifications to the existing dock/pier. They still have not finalized their sale to Texaco. It has now been 18 months from the time that the sale was announced, and it still has not closed.

Amos

LOCATION: 9270 PORTLAND

NAME	BATCH NO	AUDIT/ CHECK NO	G/L	DET	SUB DET	LOC	DEPT	TAX CODE	EMPL NO	PURCHASE/ORDER NUMBER	PO ORDER ADD. NO.	QUANTITY	UNIT CODE	AMOUNT DISTRIBUTED
CASE CREDIT CORP	000	92700562	305	975		9270	925	362						1,938.00
									DEPARTMENT TOTAL					1,938.00
									DETAIL TOTAL					1,938.00
									GENERAL LEDGER TOTAL					65,668.00
CHRISTENSON ELECT	000	92700567	874	401		9270	1	362						893.00
									DEPARTMENT TOTAL					893.00
									DETAIL TOTAL					893.00
									GENERAL LEDGER TOTAL					893.00
SEAPORT MARINE SUR	000	30243576	1745			9270		362						330.00
PORT OF LONGVIEW	000	92700534	1745			9270		362						43,139.00
PORT OF LONGVIEW	000	92700535	1745			9270		362						1,350.00
TAYLOR TRUCKING LL	000	92700530	1745			9270		362						22,028.00
STEVEDORING SERVIC	000	92700536	1745			9270		362						30,423.00
KULAVIK JOSEPH R	000	48380259	1745			9270		362						10,485.00
									DEPARTMENT TOTAL					107,755.00
									DETAIL TOTAL					107,755.00
									GENERAL LEDGER TOTAL					107,755.00
CAMPBELL CRANE	000	30243578	4210			9270	46	362						560.00
MCKERNAN	000	92700552	4210			9270	46	362						34,801.00
GEO ENGINEERS INC'	000	92700569	4210			9270	46	362						17,378.00
AMERICAN HEATING	000	92700565	4210			9270	46	362						10,230.00
AMERICAN HEATING	000	92700564	4210			9270	46	362						90,114.00
PACIFIC BLDG CONST	000	48380061	4210			9270	46	362						13,200.00
APPLIED PROF SERV	000	92700556	4210			9270	46	362						150.00
DIVERSIFIED MARINE	000	92700568	4210			9270	46	362						39,000.00
PORTLAND CITY	000	48380418	4210			9270	46	362						20,010.86
									DEPARTMENT TOTAL					225,443.86

FROM :KII TAR & CHEMICAL 412 227 2202 1999-01-04 11:10 #588 P.02/03
Koppers019416

KOPPERS INDUSTRIES INC.
CARBON MATERIALS AND CHEMICALS
ACCOUNTS PAYABLE DISTRIBUITION BY GROUP
DECEMBER 1998

LOCATION: 9270 PORTLAND

NAME	BATCH NO	AUDIT/ CHECK NO	G/L	DET	SUB DET	LOC	DEPT	TAX CODE	EMPL NO	PURCHASE/ORDER NUMBER	PO ORDER ADD. NO.	QUANTITY	UNIT CODE	AMOUNT DISTRIBUTED
BECO ENG CO	000	92706558	4210			9270	47	362						8,050.00
BECO ENG CO	000	48300007	4210			9270	47	372						1,990.00
PERFORMANCE PUMPS	000	92700526	4210			9270	47	362						2,438.00
PERFORMANCE PUMPS	000	92700671	4210			9270	47	362						6,195.00
CHRISTENSON ELECT	000	92706370	4210			9270	47	362						7,585.00
										DEPARTMENT TOTAL				26,258.00
										DETAIL TOTAL				251,701.86
										GENERAL LEDGER TOTAL				251,701.86
MID-SHIP MARINE	000	81200581	5050	1	99	9270		9999						165,155.00
										DEPARTMENT TOTAL				165,155.00
										DETAIL TOTAL				165,155.00
PAN OCEAN SHIPPING	000	81200280	5050	11		9270		999						4,914.00
										DEPARTMENT TOTAL				4,914.00
										DETAIL TOTAL				4,914.00
SEAPORT MARINE SUR	000	30243676	5050	12		9270		362						330.00
PORT OF LONGVIEW	000	92700535	5050	12		9270		362						1,350.00
PORT OF LONGVIEW	000	92700534	5050	12		9270		362						43,139.00
DAEWOO CORPORATION	000	81200207	5050	12		9270		992						536,000.00
TAYLOR TRUCKING LL	000	92700510	5050	12		9270		362						22,028.00
STEVEDORING SERVIC	000	92700536	5050	12		9270		362						30,423.00
										DEPARTMENT TOTAL				633,270.00
										DETAIL TOTAL				633,270.00
SEAPORT MARINE SUR	000	30238556	5050	19		9270		362						540.00
										DEPARTMENT TOTAL				540.00
										DETAIL TOTAL				540.00
										GENERAL LEDGER TOTAL				803,879.00

FROM :KII TAR & CHEMICAL 412 227 2202 1999-01-04 11:10 #588 P.03/03
Koppers019417

Author: AMOS KAMERER at PITT
Date: 12/7/98 10:17 AM
Priority: Normal
TO: Kevin Fitzgerald at PITT
TO: BILL MEISINGER at TECHCTR
TO: JIM DIETZ at TECHCTR
TO: John Kunkle at PITT
TO: Traci Self at PITT
TO: Tom Davis at PITT
TO: BOB WOMBLES at TECHCTR
Subject: November Liquid Pitch Unloading Project Report

---------- Message Contents ----------

Kevin,

Regulatory Issues

All of the revised information has now been submitted to the ODEQ for the new air permit, they expect that the new permit will be issued by the end of January.

Cost Analysis

a) budget	$4,310,000
b) spent to date	632,836
c) committed to date	1,596,516
d) balance uncommitted	2,718,484

Time Line, Engineering and Permits

For all practical purposes, the engineering work is now completed, just a few odds and ends to deal with.

The dock work permit has been reviewed and approved by 5 out of the 8 departments that review it, and we expect to have the approval next week. Purchase Order's have been issued for all of this work, and we expect to have this work completed, in 3 phases, by the end of February. All of the pile driving will be done by the end of January, as required by the State.

The permit application for the balance of the project will be submitted next week. Bid requests for the civil, mechanical and electrical work were given out last week. The bids for these are due back on 1/7/99, and the plan is to issue the PO's by 1/15/99. The contractor's have been told that we would expect to have the permit approval by 2/15/99, with work starting at that time.

We have also issued the PO for the new shop. This work probably won't get started until mid to late March, and be completed in May.

Operational Issues

No problems to report at this time.

Other Matters

The Texaco purchase of Pacific Northern Oil still has not been completed, so we are still waiting for that to occur and then we can talk with them about their proposal for them to handle the dock work portion, of our discharges. We have kept them informed of all of our plans and have sent them, and NW Natural, copies of all of the drawings for the planned changes to the existing dock, for their comments. No problems have developed so far.

Amos

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
November 1998

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#	Tx#	Comments/Vendor/User	Amounts
4210	9270			46		32	397	1372	PROCESS PLANTS CONSULTANTS	320.00
4210	9270			46		32	516	362	AIR COMPLIANCE CONSULTANTS INC	2,813.00
4210	9270			46		32	515	362	GEO ENGINEERS INC	6,675.00
4210	9270			46		32	514	362	CHEMTECH CONSULTANTS INC	44,414.00
4210	9270			46		32	513	362	CHEMTECH CONSULTANTS INC	38,901.00
4210	9270			46		32	490	362	AIR COMPLIANCE CONSULTANTS INC	1,134.00
4210	9270			46		32	488	362	J CAMERON MCKERNAN	17,427.00
									Total Detail (0000)	111,684.00
									Total Location (9270)	111,684.00
									Total Report	111,684.00

Amos
Bill

November capital costs - Terminal

FROM :KII TAR & CHEMICAL 412 227 2202 1998.12-01 13:54 #323 P.01/01

Author: AMOS KAMERER at PITT
Date: 11/8/98 9:59 AM
Priority: Normal
TO: Kevin Fitzgerald at PITT
TO: BILL MEISINGER at TECHCTR
TO: JIM DIETZ at TECHCTR
TO: John Kunkle at PITT
TO: Traci Self at PITT
TO: Tom Davis at PITT
TO: BOB WOMBLES at TECHCTR
Subject: October Liquid Pitch Unloading Project Report
---------- Message Contents ----------

Kevin,

Regulatory Issues

The submittal's for our new air permit were made last week. Kathy Amidon with the ODEQ called to review the data with Traci, and suggested that we make one change. To recalculate the PTE, when using diesel as our back up fuel for a period of say 4 weeks out of the year. This would reduce the SO2 numbers to a more acceptable level. Traci will make this correction next week.

Cost Analysis
---

a) budget	$4,310,000	
b) spent to date	~~521,152~~ 632,836	
c) committed to date	~~1,491,479~~ ~~1,221,516~~ 1,591,516	
d) balance uncommitted	~~3,098,484~~ 2,718,484	

Time Line and Engineering

The dock side work permit application was made on 10/15/98. Bid requests have been mailed out on this work and we expect to place PO's for this work by Thanksgiving, as this work needs to be completed by the end of January.

The balance of the work permit application will be made by the end of November. This delay was caused by problems with the tank design of the larger tank, and the relating thermal issues that developed with this change. Engineering still feels that even with this delay, that a 10/01/99 completion schedule is still achievable.

A per-bid meetings with construction contractors and the review of the marine work bids is scheduled in Portland for the week of November 16th.

Operational Issues

We are still working with one contractor on the new shop, but this project is going slow as well. However, I hope to have this PO also issued by the end of the month.

Other Matters

Cameron McKernan and I have met several times with the local Pacific

Northern Oil people regarding the dock changes that need to be made. No major problem's at this time. They still have not signed their sale deal with Texaco, so until that is done, I will not be receiving their quote on their providing us with the unloading service at the dock, for our vessels.

Amos

CC: T. J. Turner

GL/46116/MENU100PRTJV
11/02/98 07:17:26 AM

Requested By KUNKLE

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
October 1998

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
4210	9270	All	All	46	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#	Tx#	Comments/Vendor/User	Amounts
4210	9270			46		31	3561	362	PORTLAND CITY BUREAU OF BLGDS	1,495.00
4210	9270			46		32	472	362	CHEMTECH CONSULTANTS INC	90,706.00
4210	9270			46		32	469	362	AIR COMPLIANCE CONSULTANTS INC	1,998.00
4210	9270			46		32	457	362	GEO ENGINEERS INC	8,282.00
4210	9270			46		32	456	362	J CAMERON MCKERNAN	27,106.00
									Total Detail (0000)	129,587.00
									Total Location (9270)	129,587.00
									Total Report	129,587.00

Amos/Bill

Monthly 4210 activity

KOPPERS INDUSTRIES

INTEROFFICE CORRESPONDENCE

To: J. T. Dietz

From: W. A. Meisinger

Location: Harmarville

Location: Harmarville Technical Center

Subject: Status Report

Date: November 6, 1998

Carbon Materials & Chemicals Division

USX-Gary--Centrifuge

Field work continues. The diluent tank foundation is completed. Underground conduits in the process area have been completed less tie-in. The flare has been ordered. The electrical contract has been let. Projected start-up April 1999.

USS-GARY WORKS CENTRIFUGE
PROJECT COST SUMMARY
October 29, 1998

	Budget	Committed	Yet To Commit	Deviation
CAPITAL	$2,036,000	$1,491,479	$544,521	$0

Portland—Liquid Pitch Unloading and Storage

Engineering continues on the job. The tank has been purchased. Building permit submittals to the city of Portland for the marine side work was made in October. The first submittal will be for the marine work. The window for completion of marine work is December 1, 1998 to January 31, 1999. This work is now out for bid. After January, river activity is prohibited until July 1 because of fish migration. Delays are being experienced in finalizing the tank foundation work due to Morse Construction's delay of tank calculations and thermal design problems with the tank foundation. Pre-bid meetings with construction contractors and review of marine bids are scheduled for the week of November 16. Final permit submittals should be completed in November. Third quarter 1999 completion remains on schedule.

Budget	Committed	Yet To Commit	Deviation
$4,310,000	$1,211,516	$3,098,484	$0

Railroad & Utility Products

Grenada—Treating Cylinder Calculations

Working pressure calculations for cylinder numbers 1,2,4, & 5 Have been completed by Hamel Engineering. Results are being forwarded to the plant.

Roanoke-# 8 Tank Replacement

The tank is under construction. Completion will be by year-end.

Susquehanna—Waste Conveyor

The AFE was approved. The conveyor has been ordered from Conveyor Machinery. The controls engineering will be let next week.

Susquehanna—Minimum Generation Levels

We have received notice from PP&L that our proposal to change the limit for minimum generation levels from 0 to 3.75MW has been accepted.

W. A. Meisinger

Koppers Industries
Portland Plant

Liquid Pitch Unloading Terminal

06-Nov-98

Koppers019426

Item	Budget	Committed	Deviation	Contingency	To Committ	Final Cost	Expended
			0				
			0				
1.0 Engineering							
1.1 Preliminary	$56,458	$56,458	$0.00				$56,458
1.2 Detailed	$432,420		$432,420.00				
1.2.1 Permitting	$55,822		$55,822.00				
1.2.2 Design			$0.00				
1.2.2.1 Dock & Pipeline		$130,305	($130,305.00)				
1.2.2.2 Piling & Tank Fdn.		$32,200	($32,200.00)				
1.2.2.3 General		$300,000	($300,000.00)				
1.3 Site Supervision			$0.00				
1.4 Start-up			$0.00				
			$0.00				
2.0 Equipment			$0.00				
2.1 Pitch Tank	$378,300	$392,553	($14,253.00)				
2.2 Hot Oil Heater/Pumps	$200,000	$200,000	$0.00				
2.3 Pitch Pumps	$60,000		$60,000.00				
2.4Instrumentation	$135,000		$135,000.00				
2.5 Valves	$7,300		$7,300.00				
2.6 Switchgear	$75,450		$75,450.00				
			$0.00				
3.0 Other Items			$0.00				
3.1 Fume Recovery Upgrade	$90,000	$100,000	($10,000.00)				
3.2 Shop Relocation	$87,550		$87,550.00				
			$0.00				
			$0.00			$0	
3.0 Installation							
3.1 Foundations/Concrete	$368,700		$368,700.00			$0	
3.2 Structural	$303,250		$303,250.00			$0	
3.3 Mechanical	$780,300		$780,300.00			$0	
3.4 Electrical & Instrumentation	$226,900		$226,900.00			$0	
3.5 Insulation			$0.00			$0	
3.5.1 Tank Insulation	$152,950		$152,950.00				
3.5.2 Pipe Insulation	$220,000		$220,000.00				
3.5.3 Equipment Insulati	$20,000		$20,000.00			$0	
3.6 Painting			$0.00			0	
3.7 Fire Protection	$77,000		$77,000.00				
3.8 Paving	$20,600		$20,600.00				
			$0.00				
			$0.00			$0	
4.0 Freight			$0.00			$0	
			$0.00			$0	
5.0 Contingency	$562,000		$562,000.00				
			$0.00				
Total	$4,310,000	$1,211,516	$3,098,484.00			$1,211,516	

Author: AMOS KAMERER at PITT
Date: 11/9/98 7:18 AM
Priority: Normal
TO: Kevin Fitzgerald at PITT
TO: BILL MEISINGER at TECHCTR
TO: JIM DIETZ at TECHCTR
TO: John Kunkle at PITT
TO: Traci Self at PITT
TO: Tom Davis at PITT
TO: BOB WOMBLES at TECHCTR
Subject: October Liquid Pitch Unloading Report
---------- Message Contents ----------

Kevin,

I just noticed that on yesterdays report I showed the wrong "committed to date" amount, the correct amount is $1,211,516. All the other numbers are correct. Sorry.

Amos

Author: AMOS KAMERER at PITT
Date: 9/8/98 3:22 PM
Priority: Normal
TO: Kevin Fitzgerald at PITT
TO: Tom Davis at PITT
TO: JIM DIETZ at TECHCTR
TO: John Kunkle at PITT
TO: BILL MEISINGER at TECHCTR
TO: Traci Self at PITT
TO: BOB WOMBLES at TECHCTR
Subject: Liquid Unloading Project August 98 Update

---------- Message Contents ----------

Kevin,

Regulatory Compliance Issues

We are still working with Environmental and Engineering over the VOC calculations for the submittal of our new air permit. It has been decided that we will provide the data on a year by year basis, predicated on our estimated volume of business for the next 5 years - 1999 through 2003. I am hoping that this will be completed with in the next 2 weeks.

Cost Analysis

a) budget	$4,310,000
b spent to date	242,826
c) committed	269,679
d) balance	3,797,495

Time Line

Engineering has been slowed because of the redesign of the storage tank to a larger size. It is now planned that we will have the wrap up meeting on the engineering some time the week of Aug. 28th, and then submit to the city for building permits the week of Oct. 5th

Major Difficulties/Hurdles

Nothing to report.

Property Lease Extension

I have a meeting scheduled this Thursday PM with N W Natural(NWN) and their other tenant, Pacific Northern Oil(PNO) about our project and new leases for both KII and PNO. About 6 months or so ago, PNO was bought out by Texaco and they also have asked NWN for a new lease.

Recently, NWN called me to ask about how KII would like our new lease to address the matter that KII leases to PNO, the use of one of our old product lines, for their discharge of fuel oils from PNO's tank cars, to their storage tanks. I reviewed this matter with Don Evan's,

he suggested, and I then decided that sense KII will never have any future need for the use of this line, that KII should sell the line to PNO. Our lease would then show that PNO owns the line and has an easement through our leased property for the line, and that both NWN and PNO indemnify KII for any damages, in the event of an accident. I have presented this idea to both NWN and PNO, and this matter will also be discussed on Thur. My idea is to sell the line for say $1, and in return they will grant us use of their equipment that would be of common use at the dock. Things such as the emergency water containment boom equipment and the deployment boat, existing fire hose equipment, etc..

Thus, I will be able to provide you with an update on having the new lease signed by our next BOD's meeting. NWN has been told that we need this by the 22nd, which is one week earlier than the BOD's meeting is scheduled.

Ocean Carrier Selection

I know of nothing new to report on the matter.

Operational Issues

I have had a very negative responses to my bid requests for the new shop. This is a simple pre-engineered metal building and that turns out to be the problem. It's so small,only a couple of contractors are interested. I hope to be in a position to be able to place this order by 9/25.

Other Relevant Information

One thing, I know that the decision to build the larger storage tank has put us behind schedule, but from an operating point of view, I believe that this was the correct decision to make.

Amos

CC: T. J. Turner

GL/46116/OS461160700
09/04/98 09:33:40 AM

KOPPERS INDUSTRIES INC.
CARBON MATERIALS AND CHEMICALS
ADDITIONS AND REPLACEMENTS IN PROGRESS SCHEDULE VII
AUGUST 1998

GROUP : (0200) PORTLAND GROUP
LOCATION : (9270) PORTLAND

DESCRIPTION	**AUTHORIZATION** CLASS	AFE#	DATE	AMOUNT	** TO-DATE ** AMOUNT	THIS MONTH AMOUNT	CURRENT YEAR TO DATE	PRIOR YEAR AMOUNT	UNEXPENDED BALANCE	COMP DATE
STORM WATER DISCHARGE SYSTEM	I-B	43	9-96	45,000	47,825	0	0	47,825	2,825-	7-98
CASE 821 TRANSMISSION REBUILD	I-B	45	12-97	18,500	18,500	0	0	18,500	0	
LIQUID PITCH UNLOG TERMINAL	I-B	46	5-98	4,310,000	242,003	130,926	242,003	0	4,067,997	
CAPITALIZED INTEREST	I-B	46	5-98	0	823	0	823	0	823-	
*** TOTAL AFE ***				4,310,000	242,826	130,926	242,826	0	4,067,174	
UNLOADING LINE AND TANKS	I-B	8027	4-97	0	0	0	56,458-	56,458	0	7-98
TOTAL PORTLAND				4,373,500	309,151	130,926	186,367	122,783	4,064,349	

Amos

FOR INFO.

John

Author: AMOS KAMERER at PITT
Date: 9/4/98 3:35 PM
Priority: Normal
TO: John Kunkle at PITT
TO: BILL MEISINGER at TECHCTR
Subject: Liquid Pitch Unloading Capital Project
---------- Message Contents ----------

John, you e-mailed me the other day stating that $130,926 was expensed the this project for the month. The schedule VII doesn't reflect this, will you please check and advise.

Bill, I know that you were traveling the last 3 days and will be swamped come Tues., but I would appreciate your month end report for reference ASAP on Tues. so that I can get mine done to Kevin that day as well.

Staci and Bob, same thing, could you fax me a copy of your report on Tues..

Thanks,

Amos

Author: AMOS KAMERER at PITT
Date: 8/7/98 4:17 PM
Priority: Normal
TO: Kevin Fitzgerald at PITT
CC: Joseph Calfe at TECHCTR
CC: Tom Davis at PITT
CC: JIM DIETZ at TECHCTR
CC: John Kunkle at PITT
CC: BILL MEISINGER at TECHCTR
CC: Traci Self at PITT
CC: BOB WOMBLES at TECHCTR
Subject: Liquid Pitch Unloading Project Update for July, 1998
---------- Message Contents ----------

Kevin,

Regulatory Compliance Issues

There's only one issue to report on, in this area. We have had our Air permit, with the Oregon DEQ, on hold pending the results of our consultants calculations on the amount of VOC's that will be emitted from our fume recovery system, that was not a part of the original application. The consultants results are now in dispute and will be reviewed by Jim Dietz next week. If the result shows a number of more than 10 tons per year, we will have to reapply, which will take another 6 to 8 weeks for the new application to be processed. However, based on conversation that Traci and I had with the DEQ today, as long as that number does not exceed 40 TPY, the permit would be issued. The consultant has calculated 25 TPY, which we believe is higher than it should be, thus we do not think we have a problem in getting the permit, just an additional time factor, that we have to deal with.

Cost Analysis
---

a) budget	$4,310,000
b) spent to date	111,900
c) committed	296,605
d) balance	3,901,495
e) deviation	0

b- reflects the early local engineering and permitting work, the air permit consultant, the mechanical portion of the fume recovery system upgrade, and one months capital interest.

Time Line

The Engineering is scheduled to be completed by Sept. 4th and we plan to submit for the building permits to the city of Portland the week of Sept. 8th. We have been told that this process will take from 8 to 12 weeks. Preliminary tank specifications are out for bids and are due next week.

Major Difficulties/Hurdles

Nothing that I am aware of, at this time.

Property Lease Extension

I have asked that the engineering firms that are involved in the design of the project, to provide me with the drawings and related data, sufficient enough for N. W. Natural to review, by the middle of this month, so that N. W. will have sufficient time to prepare the final lease for signatures by sept. 15th, as has been requested.

Ocean Carrier Selection

Unfortunately, I lost track of the time today and did not make contact with Tom to review this subject, so I have nothing to report. If Tom has anything new, or any items of concern, to report on, please do so as soon as you can next week. Thanks.

Operational Issues

I am preparing the specifications for the new shop, and plan to start contacting local building contractors next week, and I hope to have a purchase order issued for this work by the end of the month, with construction as soon as is possible, thereafter.

Other Relevant Information

Only that I was very pleased with our kick off meeting a couple of weeks ago, with the all of the engineering firms working on the project. I was particularly pleased with the ChemTech people. There recent involvement with a similar project will be very beneficial to us, and in them doing a quality job for us.

If any questions, please advise.

Amos

CC: T. J. Turner

KOPPERS INDUSTRIES

INTEROFFICE CORRESPONDENCE

To:	J. T. Dietz	From:	W. A. Meisinger
Location:	Harmarville	Location:	Harmarville Technical Center
Subject:	Status Report	Date:	August 7, 1998

Carbon Materials & Chemicals Division

Monessen—Coal Storage Yard Stormwater Management System

Clay lining of the pond is in progress.

Commitments to Date: ($000)

Budget	Committed	Estimated Final
$750	$700(APPROX.)	$750

Monessen—Power Generation Study

An investigation will be initiated to determine the feasibility for generating power on site. The Feather River turbine generator has been retired. If this project is viable, that machine could be a fit.

USX-Gary--Centrifuge

It appears that a permit to construct exemption is possible. Bids are in for concrete, structural and mechanical construction work. Work may be released as early as this week. Soil testing has been delayed but most likely will begin this week if internal permitting is resolved. Engineering is nearly complete. Received electrical package July 31. It will be reviewed this week and be out for bids. HAZOP scheduled for September 1,2,3. Conveyor and heat exchanger are on order. Tanks required re-bid and should be on order within a week or so. Commitments reflect civil/mechanical contract release. Projected construction completion remains Feb. 1, 1999 however recent delays in conducting soil sampling will impact start of foundation work.

USS-GARY WORKS
CENTRIFUGE
PROJECT COST SUMMARY
August 2, 1998

	Budget	Committed	Yet To Commit	Deviation
CAPITAL	$2,036,000	$1,008,213	$1,027,787	$0
TOTAL PROJECT	$2,036,000	$1,008,213	$1,027,787	$0

Portland-Liquid Pitch Unloading and Storage

Commitments have been made for all engineering for the project. An engineering kick-off meeting was held at Portland on July 28, with Chemtech, Cameron McKernan and Jack Tuttle. The target for City of Portland Building Permit submittals is Sept. 8. Preliminary tank specifications are out for bids.

Budget	Committed	Yet to Commit	Deviation
$4,310,000	$408,505	$3,901,495	$0

Railroad & Utility Products

Gainesville—Replacement of Steam Line to Dry Kiln

A revised steam and condensate line replacement plan was reviewed and comments were faxed to Hal Wilson. Support details will be reviewed when the successful contractor is selected.

Logansport—Evaporator

A site visit was made June 9 & 10 to review requirements for the new evaporator. Information was reviewed and a summary with recommendations will be completed by mid August. Jim Healey will do lab tests on waste water and have thickness measurements taken on the proposed vessel.

Logansport—New Work Tanks

A recommendation and specification will be prepared for the tanks to be replaced by mid August.

Montgomery--Boiler Repair/Replacement

Expenditure postponed until 1999. Plant has requested review of instrumentation upgrade proposal. This review will be completed by the end of August.

Montgomery--#4 Cylinder Calculations

Hamel Engineering was retained to do a calculation of working pressure for #4 cylinder based on thickness reading. It appears that a major repair is necessary to bring the cylinder up to the required working pressure of 150 psig.

Roanoke-# 8 Tank Replacement

Bids have been received for the cleaning of the old tank and constructing the new tank. Bid evaluation is in progress.

Somerville—Fire Protection

A site visit was made the week of March 9 to determine a routing for a fire loop replacement in the treating process area and fire pump installation. Dave Shaw, Howard Rue and I worked up a proposed plan that would route most of the supply main above ground. The plan incorporates monitors for the tank farm and oil unloading areas, sprinklers for the treating and pump rooms, a deluge system over the cylinder doors and installation of the diesel fire pump salvaged from the Houston Plant. We are waiting for acknowledgement from our insurance carrier that a 75% above ground installation is acceptable. We will obtain estimates for the engineering and proceed as soon as we get word from our insurance carrier. No progress to date.

Susquehanna—Waste Conveyor

Bids on the conveyor have been received. The plant is obtaining the track work bid update and installation bids. Expenditures to date are $10,452 versus a commitment of $11,700 for preliminary engineering. Control logic and pricing was finalized in July. Plant should finalize request in August.

Susquehanna—Turbine Operation

I am working with the plant to reply to PP&L's min-gen. Request.

Koppers019437

Author: BOB WOMBLES at TECHCTR
Date: 7/27/98 12:53 PM
Priority: Normal
TO: Kevin Fitzgerald at PITT
CC: KATHY SICKELS
Subject: Engineering Review Meeting Minutes

Copies to:
T. A. Golubic - Follansbee
A. Kamerer - Portland
M. Mancione - Stickney
J. Kunkle - K-1600

Kevin, the notes from the Engineering Review Meeting held on 07/14/98 are summarized below. Let me know if you need additional information.

Forward Header

Subject: Engineering Review Meeting Minutes
Author: BOB WOMBLES at TECHCTR
Date: 7/15/98 3:59 PM

1. Follansbee Benzene Abatement - Major activity associated with this project is in the area of tank rehabilitation. Plant maintenance is having problems keeping up with the schedule. Consideration will be given to completing some of the tank work with contractors and Orbital will be asked to speed up their inspections. This project remains on budget with the $1,752,000 capital and $482,000 expense allocations. It must be remembered that the original project cost estimate included $482,000 of expenses for tank cleaning in addition to the $1,752,000 capital expense.

2. Follansbee Debenzolization Column - A request for capital is being prepared for presentation to the board at the next meeting. Column delivery has been set back three weeks to December 18, 1998. This new column delivery date would make before end of the year start up impossible since it will take six weeks from column delivery to complete column installation. The project remains on budget at $960,000.

3. Follansbee Tar Acid Controls - A meeting will be scheduled with the controls vendor.

4. Gary Tar Centrifuge - In the permitting area all lab work and simulation have been completed and the data are being tabulated. Preliminary review of the data indicate that there is a good chance of getting a permit exemption. Orbital is almost completed with the engineering and a package should be sent out for bids late this week or early next week. Construction activity is scheduled to begin in August. Bids are being received for the major equipment.

5. Portland Liquid Pitch Handling - Five bids have been received for engineering with release of this work scheduled for this week. The engineering has just been awarded to ChemTech. Work has begun on getting an estimate for the enlarged pitch storage tank.

6. Chicago Lonza Phthalic Anhydride Residue Technology - A secrecy agreement has been received from Lonza. The agreement has been given to Don Evans, Jim Dietz, and Bob Wombles for review. Lonza is currently preparing a technical proposal and we are trying to get additional equipment information from them. Our goal is to have a capital request for the exhausters prepared for submission be the next board meeting.

7. TISCO Estimate - ChemTech has been retained to the capital estimate for the TISCO facility. This review is targeted for

8. IMTT Terminal - We have committed to IMTT for starting work on the tank foundation and hot oil system. Efforts are concentrating on obtaining a vessel for transporting the pitch from Europe and the European sourcing for the pitch. Trials are been arranged at the Canadian smelters during the fall.

9. Additional Requests
   A. Montgomery treating cylinder working pressure revision
   B. Susquehanna boiler
   C. Roanoke tank
   D. Stickney PAA cars

Author: John Kunkle at PITT
Date: 7/30/98 1:50 PM
Priority: Normal
TO: Kathy Roberts
CC: Amos Kamerer
CC: BILL MEISINGER at TECHCTR
Subject: Schedule VII

---------- Message Contents ----------

Appropriation # 9270-8027 was submitted prior to the preparation and approval of 9270-46 to accumulate preliminary engineering and permitting charges. Please transfer all money from this capital to 9270-46 in July.

Thanks, John

KOPPERS INDUSTRIES

INTEROFFICE CORRESPONDENCE

To:	Amos Kamerer	From:	K. J. Fitzgerald
Location:	Portland	Location:	K - 1600
Subject:	Liquid Pitch Facility Project	Date:	July 13, 1998

Amos:

Please start submitting update reports detailing the status of the Liquid Pitch Facility Project. The update should include as a minimum the following information:

- Insurance Issues (property/product/vessels/etc.)
- Regulatory Compliance Issues
  - Permits (operating, environmental, construction, etc.)
  - Authorizations
  - Etc.
- Cost Analysis
  - Capital costs compared to budget
  - Total spent to date
  - Non-capital costs
- Time Line
  - On schedule activities
  - Off schedule activities (reasons and adjustments)
- Major Difficulties/Hurdles
- Property Lease Extension Status
- Ocean Carrier Selection
  - Contract
  - Regulatory Compliance
  - Availability status
- Operation issues/procedures/preventative maintenance schedule
- Any Other Additional Information You Consider Important to the Project.

Bob Wombles informed me that he holds Engineering Status Meetings during the third week of each month, which includes the Portland Project. Let's use the minutes of this meeting as an update and have your Status Report submitted monthly. Obviously you need to coordinate your report with all involved departments: EH&S, Engineering, Logistics, Purchasing and Accounting.

I would like your report submitted on the following dates:

August 7, 1998
September 8, 1998
October 9, 1998
November 6, 1998
December 4, 1998
January 8, 1999
February 5, 1999
March 5, 1999
April 9, 1999
May 7, 1999
June 4, 1999
July 9, 1999
August 6, 1999

Kevin J. Fitzgerald

KJF:rs

C: B. Wombles – U-PARC
J. Dietz – U-PARC
B. Meisinger – U-PARC
J. Calfe – U-PARC
T. Davis – K-1650
T. Self – K-1800
J. Kunkle – K-1600

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-11800

Purchase Order

KOPPERS INDUSTRIES

Date: 9/29/99 Purchase Order # 3000-9-13033

Page: 1 Contact: JACK L. STEPHENSON – 412/227-2265 - Fax: 412/227-2935

To: McDowell Welding & Pipe Fitting, Inc.
4000 NW Street Helens Road
Portland, OR 97210

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	REQUEST: W. Meisinger ACCOUNT:	
	STORAGE TANK	
	EXHIBIT A - OSHA COMPLIANCE	
1	2000 gallon, mild steel, tank with ASME stamp and appurtenances as quoted.	$10,406.00/ LOT
	Send original and two copies of all invoices to: KOPPERS INDUSTRIES, INC. 7540 N.W. STREET, St. HELENS ROAD. PORTLAND, OR 97210-3863 ATTENTION: C. NORRIS	
	Send one copy of all invoices to: KOPPERS INDUSTRIES, INC. PURCHASING DEPARTMENT ROOM 1950, 436 SEVENTH AVENUE PITTSBURGH, PA 15219-11800 ATTENTION: JACK L. STEPHENSON	
	PRICE: Based on Seller's Quote dated 9/15/99 **FOB:** **Jobsite** **SHIP:** 10/29/99 **TERMS:** Net 45 days	
	ALL FEDERAL EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION REQUIREMENTS IN REGARD TO RACE, SEX, RELIGION, NATIONAL ORIGIN, HANDICAP AND VIETNAM VETERAN OR DISABLED VETERAN STATUS, AS FOUND IN 41 CFR 60-1.4, 41 CFR 60-250.3, AND 41 CFR 741.3, ARE HEREIN INCORPORATED BY REFERENCE. KOPPERS INDUSTRIES IS ENTITLED TO ALL REMEDIES PURSUANT TO THE UNIFORM COMMERCIAL CODE.	
	Confirming verbal order to Gary Johnson by William Meisinger of Koppers Industries, Inc. - DO NOT DUPLICATE	

COPY

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS

1120 S.W. 5th Avenue
Portland, Oregon 97204-1992
Mailing Address: P.O. Box 8120
Portland, Oregon 97207-8120
(503) 823-7300
FAX: (503) 823-6983
TDD: (503) 823-6868

ELECTRICAL PLAN REVIEW CORRECTIONS

JUNE 18, 1999 **Permit #: ELE99-03402**

Chandler Electric
P.O. Box 80696
Portland, Oregon
97280-1696

RE: KOPPERS INDUSTRIES
Letter Dated June 16, 1999

David Chandler,

I appreciate your response to my concerns in my letter dated June 09,1999. With the understanding that no Code Classification Areas exist on the electrical construction that encompass this permit and our future attention to required listing and labeling requirements I am approving the Electrical Plans associated with Koppers Industries.

Looking forward to working with you and your employees in the near future. Please feel free to contact me with your concerns.

Send required information to:Gene E. Cielo: P.O. Box 8120 Portland, Or. 97208-8120.
If you have any questions, please phone me at 503-.823-7296 Fax 503-823-5433

cc:

The City of Portland policy regarding emergency lighting requires the path of egress to be approved by the building plan's examiner. The path of egress must have one foot candle of lighting. Bug-eyes will not work. For more information call your architect or the building plan's examiner. Installations must meet seismic zone three, ADA requirements, and the Oregon Energy Code. *The electrical Plans will be approved subject to you complying with these codes.*

VDLER
LECTRIC
Electrical Design

PO BOX 80696
Portland, OR 97280-1696
PHONE 503-245-7774 • FAX 503-244-4804

FAX COVER SHEET

DATE: Thursday, June 17, 1999 **TIME:** 11:52 AM

TO: GENE CIELO
COMPANY: CITY OF PORTLAND BUREAU OF BLDGS
PHONE: 823-7296
FAX: 823-5433

FROM: DAVE CHANDLER
PHONE: 245-7774
FAX: 244-4804

Number of sheets: 3 (including this cover sheet)

COMMENTS:

ATTACHED, PLEASE FIND A COPY OF MY LETTER TO CAMERON MCKERNAN IN RESPONSE TO YOUR LETTER OF June 9, 1999. PLEASE CALL IF YOU HAVE ANY QUESTIONS.

CHANDLER ELECTRIC
Electrical Design

PO BOX 80696
Portland, OR 97280-1696
PHONE 503-245-7774 ● FAX 503-244-4804
CCB# 84908 ● 26-524C

Cameron McKernan

June 16,1999

Re: Koppers permit letter from city, which is enclosed

Cameron,

I have talked to Gene Cielo, the inspector that reviewed the prints and also he will be in charge of inspections. He basically told me that his letter was to cover his "self", with regards to the material we will be using. On the issue of explosion proof fittings and areas it is understood that legally there are no explosion proof areas. I pointed out it was the intent of the designer, Koppers, to follow old proven ways of installation. He did not have a problem with the design because it surpasses the applicable codes.

In the paragraph # 1, he requests that you define what areas actually are class 1 division 2 areas per the electric code. You actually have no areas that are explosion proof rated, however the owner has made some demands with regards to the wiring design. These designs and details as drawn are not in compliance with the code. The drawings show a detail with an explosion proof seal off above a form 7, or a malleable condolet. This drawing is ok because the area is really not an explosion proof area. We can and will wire per the drawings.

I really don't know what you could say in your letter other than the wiring will be installed per the drawings.

Respectfully

David W Chandler

David W. Chandler

Copy to: Gene Cielo

CITY OF
PORTLAND, OREGON
BUREAU OF BUILDINGS

1120 S.W. 5th Avenue
Portland, Oregon 97204-1992
Mailing Address: P.O. Box 8120
Portland, Oregon 97207-8120
(503) 823-7300
FAX: (503) 823-6983
TDD: (503) 823-6868

ELECTRICAL PLAN REVIEW CORRECTIONS

Wednesday, June 09, 1999 **Permit #: ELE99-03402**

Chandler Electric
P.O. Box 80906
Portland, OR.
97280-1696

RE: Koppers Industries

Send in new plans or a letter addressing the following corrections. Due the lack of storage space. Your plans will be discarded if I do not hear back from you in sixty (60) days! The permit will be canceled.

1.Nec- 500-3(b)-1999-New- Request responsible Registered Engineer J. Cameron McKerman to exactly define the Electrical Classification Area's that will require Class I, Div. II wiring and equipment. This documentation will assist the Electrical Inspector and Electrical Installer agree on hazardous areas and boundaries. This documentation may consist of an area classification drawing,plans, or tables noting processes or equipment creating the hazardous condition and defining the boundaries of the area classification. See submitted plans drawing No. 6526-1020-Revision #0 Notes # 5&7. See Drawing No. 6526-E011-Revision #0 Note 8.

2.ORS.479.730 and Admin. Rule 918-306-0000- All electrical equipment , components, and electrical systems that meet this requirement will be required to be listed and approved by an approved Listing Agency as a prerequisite for Final Electrical Approval. Also, please be attentive to field installed and manufactures electrical equipment for the purpose of an electrical industrial process will required to be listed and approved as a whole unit by an Approved Listing Agency.

3. Nec110-16(a)Working Clearences- Condition #2-151- 600 volts- Insure that a minimum of 3.5 feet exist in New MCC Room between (Tr-1-DPI).

Send required information to:Gene E. Cielo: P.O. Box 8120 Portland, Or. 97208-8120.
If you have any questions, please phone me at 503-.823-7296 Fax 503-823-5433

cc:

The City of Portland policy regarding emergency lighting requires the path of egress to be **approved by the building plan's examiner**. The path of egress must have one foot candle of lighting. Bug-eyes will not work. For more information call your architect or the building plan's examiner. Installations must meet seismic zone three, ADA requirements, and the Oregon Energy Code. *The electrical Plans will be approved subject to you complying with these codes.*

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CHANDLER ELECTRIC
Electrical Design

PO BOX 80696
Portland, OR 97280-1696
PHONE 503-245-7774 • FAX 503-244-4804

FAX COVER SHEET

DATE: Thursday, January 20, 2000 **TIME:** 12:05 PM

TO: AMOS
COMPANY: KOPPERS
PHONE:
FAX: 285-2831

FROM: DAVE CHANDLER
COMPANY:
PHONE:
FAX:

Number of sheets: 1 (including this cover sheet)

COMMENTS:

WELL NOW, I JUST CHECKED WHERE THE HECK OUR LIGHT FIXTURES ARE. THEY ARE LEAVING HOUSTIN, TX. MONDAY NEXT. I WAS ORIGINALLY TOLD THEY WERE LEAVING WED THE 12TH, BUT THAT DID NOT HAPPEN FOR ONE REASON OR THE OTHER. I HAVE ORDERED DELIVERY BY UPS BLUE. FIXTURES TO BE HERE BY WED. THE 26TH BY 10AM AND INSTALLED AND BURNING BY THAT EVENING. THURSDAY IF THE PLANE CRASHES.

If you should have any problems in receiving this transmittal, please contact our office at (503) 245-7774

FROM (THU) 1 20 2000 12:07/ST. 12:07/NO. 5560040083 P 1

Author: AMOS KAMERER at PITT
Date: 5/3/99 5:10 PM
Priority: Normal
TO: BILL MEISINGER at TECHCTR
TO: Jack Stephenson at PITT
Subject: Chandler

---------- Message Contents ----------

Guys,

Dave came by this PM, he has faxed Cam the info for the permit. Cam said that he will get the application written and then have Dave submit it to the city, should get done this week. He and his man Eric, walked the entire job while he was here, and said that they made some notes about things they would like to discuss with us about the job. I said that we would make time for them when Bill is here.

He said that he still expected to have the bonding info to Jack by the end of the week: he said Thursday - I'm saying the end of the week: like he told Jack last week!

More to follow, I'm sure!

Amos

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Purchase Order

KOPPERS INDUSTRIES

Date: August 13, 1999
Page: 1 Contact: MARION H. MURRAY 412/227-2364

Purchase Order # 3000-9-8026
FAX: 412/227-2935

To: Ponder Burner Co.
10521 N. Lombard
Portland, OR 97203

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	REQUEST: W. Meisinger ACCOUNT: 4210-x-x-9270-46	
	PLC PANEL PROGRAMMING	
	EXHIBIT A - OSHA COMPLIANCE	
	REFERENCE DRAWINGS	
	Koppers/ChemTech P&ID Diagrams No. 6526-D002 "Mechanical Legend Sheet" No. 6526-D003 "Instrument Legend Sheet" No. 6526-D004 "Pitch Tank T-200" No. 6526-D005 "Hot Oil System" No. 6526-D006 "Hot Oil Distribution" No. 6526-D007 " Bulk Nitrogen System" No. 6526-D008 "Miscellaneous Utilities" No. 6526-D010 "Ship Unloading" Koppers/Chem Tech Flow Diagrams: No. 6526-F001 "Pitch Tank T-200" No. 6526-F002 "Hot Oil System"	
	As referenced by the drawings above, provide all the required PLC programming to provide the interlocking, alarming, and loop control of Pitch Unloading	$26,950 (Lump Sum)
	Provide a Windows NT Operator Workstartion configured with Allen-Bradley's RSView32 HMI software. This workstation will provide a graphical presentation of your system and will provide all the indicators, alarm points, and operator controls required as referenced by the drawings above. The following pre-configured screens will be furnished: • Graphical Overview of Storage Tank T-200 and Pump System • Graphical Overview of the Liquid Pitch Ship Unloading System • Graphical Overview of the Hot Oil System • Alarm Summary Screen • Trending and Historical Display Screens for Temperature, Pressure, and Flow variables • Loop Control Screens for: PIC200, FIC2105, TIC2156, TIC2166, TDIC2176 • Pump Status, and manual pump stop control.	

COPY

RECEIVED
AUG 2 3 1999
KOPPERS INDS, INC.
PORTLAND OR

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Purchase Order

KOPPERS INDUSTRIES

Date: August 13, 1999 Purchase Order # 3000-9-8026

Page: 2 Contact: MARION H. MURRAY 412/227-2364 FAX: 412/227-2935

To: Ponder Burner Co.
10521 N. Lombard
Portland, OR 97203

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

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The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	The PLC and PC workstations will be pre-configured and tested at Ponder Burner shop, and will be available for operator training prior to installation. Equipment List per quote dated August 10, 1999 3 copies of Manuals/Instructions and certified drawings to be forwarded to W. Meisinger Koppers Industries 1005 William Pitt Way Pittsburgh, PA 15238 wo INVOICE INSTRUCTIONS – Send original and tow copies of all invoices to: Koppers Industries, Inc. 7540 N.W. Street, St. Helens Rd. Portland, OR 97210-3663 **PRICE:** Based on written quote dated August 10, 1999 **F.O.B.:** Portland or (KII Facility) **SHIP:** September 27, 1999 **TERMS:** 40% based on drawings Remainder -- Net 30 ALL FEDERAL EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION REQUIREMENTS IN REGARD TO RACE, SEX, RELIGION, NATIONAL ORIGIN, HANDICAP AND VIETNAM VETERAN OR DISABLED VETERAN STATUS, AS FOUND IN 41 CFR 60-1.4, 41 CFR 60-250.3, AND 41 CFR 741.3, ARE HEREIN INCORPORATED BY REFERENCE. KOPPERS INDUSTRIES IS ENTITLED TO ALL REMEDIES PURSUANT TO THE UNIFORM COMMERCIAL CODE. No sales tax Per State of Oregon Ponder Burner Contact – Jack Valentine Phone: 503-286-1235 Fax: 503-286-1871	

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

KOPPERS INDUSTRIES

Purchase Order

Date: August 13, 1999 Purchase Order # 3000-9-8026

Page: 3 Contact: MARION H. MURRAY 412/227-2364 FAX: 412/227-2935

To: Ponder Burner Co.
10521 N. Lombard
Portland, OR 97203

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	PLEASE ACKNOWLEDGE YOUR ACCEPTANCE OF THIS ORDER BY SIGNING AND RETURNING THE ATTACHED COPY.	
	ACCEPTED BY:	
	8/17/99	
	KOPPERS INDUSTRIES, INC. AUTHORIZED SIGNATURE MARION H. MURRAY/sad CC: W. Meisinger-Harmarville C. Norris A. Krammer	SELLER'S AUTHORIZED SIGNATURE TITLE _____ DATE _____
		TOTAL $26,950

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
August 4, 1999

Ponder Burner Company
10521 N Lombard
Portland, Oregon 97203

Attention: Tony Dickerson

Subject: Koppers Industries, Inc. - Liquid Pitch Unloading

References: Kopper's Purchase Order No. 3000-9-8023

COPY

Enclosures:

P & I Diagram Drawings:

No. 6526-D002, Rev. 0 "Mechanical Legend Sheet"
No. 6526-D003, Rev. 0 "Instrument Legend Sheet"
No. 6526-D004, Rev. 0 "Pitch Tanks T-200 & T-210"
No. 6526-D005, Rev. 0 "Hot Oil System"
No. 6526-D006, Rev. 0 "Hot Oil Distribution"
No. 6526-D007, Rev. 0 "Bulk Nitrogen System"
No. 6526-D008, Rev. 0 "Miscellaneous Utilities"
No. 6526-D009, Rev. 0 "Exist. Hot Oil Distribution Modifications"
No. 6526-D010, Rev. 0 "Ship Unloading"

Flow Diagrams:

No. 6526-F001, Rev. 0 "Pitch Tanks T-200 & T-210"
No. 6526-F002, Rev. 0 "Hot Oil System"

RECEIVED
AUG - 5 1999
KOPPERS INDS, INC.
PORTLAND OR

Gentlemen:

We forward one copy each of the enclosed plans for your information.

As requested by
Bill Meiengen

Very truly yours,

J. CAMERON MCKERNAN COMPANY
AGENT FOR KOPPERS INDUSTRIES, INC.

By: Sam McKernan

J. Cameron McKernan, President

cc: Amos Kamerer

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Purchase Order

KOPPERS INDUSTRIES

Date: June 23, 1999 Purchase Order # 3000-9-8023
Page: 1 Contact: MARION H. MURRAY 412/227-2364 FAX: 412/227-2935

To: Ponder Burner Company
Attention: Dick Law
10521 N. Lombard
Portland OR 97203

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	REQUEST: W. MEISINGER ACCOUNT: 4210-X-X-9270-46	
	PLC CONTROL PANEL	
	EXHIBIT A - OSHA COMPLIANCE	
1	Programmable Logic Controller Panel per drawings: 6526-I001 6526-I002 6526-I003	$38,038.00 LOT
1	Programmable Logic Controller per Specification 6526IS15 Additional detail per quote #4018	
	SELLER GUARANTEES THAT THE EQUIPMENT PURCHASED SHALL MEET DESIGN SPECIFICATIONS NOTED ABOVE OR OUTLINED BELOW AND THAT HE WILL CORRECT ANY DEFICIENCIES AT HIS OWN EXPENSE.	
	Upon delivery of equipment, forward four (4) copies of dimension drawings, operating and maintenance manuals to: **KOPPERS INDUSTRIES, INC.** **ATTENTION: W. MEISINGER** **1005 WILLIAM PITT WAY** **PITTSBURGH, PA 15238-1362**	
	Send original and two copies of all invoices to: KOPPERS INDUSTRIES, INC. ATTENTION: C. NORRIS 7540 NW ST. HELENS ROAD PORTLAND, OR 97210-3663	
	Send one copy of all invoices to: KOPPERS INDUSTRIES, INC. ATTENTION: MARION H. MURRAY ROOM 1950, PURCHASING DEPT. 436 SEVENTH AVENUE PITTSBURGH, PA 15219-1800	

COPY

RECEIVED
JUN 28 1999
KOPPERS INDS. INC.
PORTLAND OR

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Purchase Order

KOPPERS INDUSTRIES

Date: June 23, 1999 Purchase Order # 3000-9-8023

Page: 2 Contact: MARION H. MURRAY 412/227-2364 FAX: 412/227-2935

To: Ponder Burner Company
Attention: Dick Law
10521 N. Lombard
Portland OR 97203

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	PRICE: Based on written quote #4018 dated June 16, 1999 **FOB:** **PORTLAND, OREGON PLANT** **SHIP:** August 5, 1999 **TERMS:** Net 30 days Contractor and/or Seller guarantees that all equipment/supplies provided under this order is Y2K compliant. ALL FEDERAL EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION REQUIREMENTS IN REGARD TO RACE, SEX, RELIGION, NATIONAL ORIGIN, HANDICAP AND VIETNAM VETERAN OR DISABLED VETERAN STATUS, AS FOUND IN 41 CFR 60-1.4, 41 CFR 60-250.3, AND 41 CFR 741.3, ARE HEREIN INCORPORATED BY REFERENCE. KOPPERS INDUSTRIES IS ENTITLED TO ALL REMEDIES PURSUANT TO THE UNIFORM COMMERCIAL CODE. Ponder Burner contact: Dick Law 503/286-1235, Fax 503/286-1871 For tax purposes, KII is registered in Oregon; but this state does not charge a sales tax. **PLEASE ACKNOWLEDGE YOUR ACCEPTANCE OF THIS ORDER BY SIGNING AND RETURNING THE ATTACHED COPY.** ACCEPTED BY: _____ _____ KOPPERS INDUSTRIES, INC. SELLER'S AUTHORIZED SIGNATURE AUTHORIZED SIGNATURE MARION H. MURRAY/sad TITLE _____ CC: W. Meisinger - HTC C. Norris - Portland DATE _____ A. Kamerer - Portland TOTAL	$38, 038.00

KOPPERS INDUSTRIES, INC. / PORTLAND PLANT
LIQUID PITCH FACILITY
PROJECT STATUS

January 14, 1999

Engineering

All design engineering is completed. PLC programming and operating procedures remain.

Permitting

Oregon DEQ air permit remains to be issued. All information requested by ODEQ has been supplied.

The building permit was issued in late December by the City of Portland for the dock modifications thus allowing the contractor to mobilize.

The tank, mechanical and civil work permit application was submitted mid December.

The electrical building permit requires the electrical contractor to be named on the application. The electrical package will be submitted after award of the electrical installation contract.

The new maintenance building permit application will be submitted upon completion of engineering by the building supplier.

Purchasing

Bids have been received for the mechanical, civil and electrical installation and are being evaluated. Evaluation will be completed and contracts awarded by the end of January pending resolution of the foundation issue.

Construction

The dock modification work was awarded to Diversified Marine, Inc. The river pilings are in progress with completion no later than early next week. Well within the January 31 deadline established by the Oregon Fishing Commission. The bridgework is being shop fabricated and is in progress.

01/14/99 WAM

Budget

See attached spreadsheet.

A deviation is required address the increased tank and foundation costs due to increasing the size of the tank from 7000 Metric Tons to 9000 Metric Tons.

A summary page is attached showing the increased costs and explaining the reasons.

01/14/99 WAM

GeoEngineers

March 22, 1999

Consulting Engineers and Geoscientists
Offices in Washington, Oregon, and Alaska

J. Cameron McKernan, PE
825 NE 20th Avenue, Suite 110
Portland, Oregon 97232

Dear Cameron:

Proposed Coal Tar Pitch Storage Tank
7540 NW Saint Helens Road
Portland, Oregon for
Koppers Industries
Job No. 5823-001-01

We are responding to questions raised by the City of Portland regarding the capability of the lightweight aggregate backfill to be placed within the ringwall structure to resist applied design loads. This letter is in response to the request by Sam Moss, KPFF Consulting Engineers on March 19, 1999.

The lightweight fill to be placed within the ringwall foundation will be subjected to vertically applied static loads and lateral loads induced by friction between the tank bottom and the underlying layers of sand and lightweight aggregate. The sand layer upon which the tank bottom will bear is to consist of well graded clean (less than five percent fines by weight passing the No. 200 sieve) material ranging from fine to coarse gradation.

The sand fill and the underlying lightweight aggregate will each have an internal angle of friction of at least 40 degrees. On this basis, both layers are competent to support the vertical applied bearing pressure under full load conditions when placed and compacted to an unyielding state, particularly since they will be confined laterally by the ringwall.

The transfer of lateral forces induced by a seismic event will occur by the development of frictional resistance between the tank bottom and the underlying sand layer. These frictional loads will be transferred through the sand layer into the underlying lightweight fill. This load transfer through the fill layers will induce passive pressures on the surrounding ringwall. Our analyses indicate that the combined resistance to lateral loading afforded by the base friction and the passive resistance developed against the ringwall will provide a factor of safety in excess of 1.5 in resisting the design base shear.

GeoEngineers, Inc.
8410 154th Avenue N.E.
Redmond, WA 98052
Telephone (425) 861-6000
Fax (425) 861-6050
www.geoengineers.com

Printed on recycled paper.

We trust this information will answer the questions raised by the City adequately. If there are further questions please contact Jack Tuttle at 425/861-6074.

Yours very truly,

GeoEngineers, Inc.

Jack K. Tuttle, PE
Principal

REGISTERED PROFESSIONAL ENGINEER 19437 OREGON SEPTEMBER 16, 1987 JACK K. TUTTLE

3/22/99

EXPIRES: 06/30/00

JKT:ss
P:\S823001\02\finals\S82300102ltr.doc

Three copies submitted

cc: Koppers Industries, Inc.
Attention: Bill Meisinger
1005 William Pitt Way
Pittsburgh, Pennsylvania 15238

KPFF Consulting Engineers
Attention: Sam Moss
111 SW Fifth Avenue, Suite 2500
Portland, Oregon 97204

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

May 9, 1997

Consulting Engineers and Geoscientists
Offices in Washington, Oregon, and Alaska

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, Pennsylvania 15238

Attention: James T. Dietz
Manager of Engineering

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. 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.

GeoEngineers, Inc.
7504 SW Bridgeport Road
Portland, OR 97224
Telephone (503) 624-9274
Fax (503) 620-5940

Printed on recycled paper.

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 1 to 2 feet. 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 with grout and a bentonite seal placed in the top 5 feet upon completion of drilling to prevent cross contamination between the soil strata.

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 56 1/2 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 by Hahn and Associates on boring 23, which is located in the immediate vicinity, vapor levels in this area were at approximately the same levels found in our borings.

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.

We understand that Northwest Natural Gas Company and Oregon Department of Environmental Quality (DEQ) are presently involved in setting 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. As

indicated above, our recommendations for foundation support are intended to 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 may be at or above the clean up limit for total petroleum hydrocarbons (TPH) and may also contain volatile compounds which are classified as hazardous materials. At present, no site-specific analyses of the characteristics of the soils within the planned depth of excavation 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 samples for chemical analyses of the compounds present in the soil.

If these explorations and analyses show that the contamination is above cleanup levels and/or that workers may be exposed to toxic materials or vapors, the contractor will need to prepare a health and safety plan and implement measures which will reduce worker exposure hazards to acceptable levels and to control the release of vapors into 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.

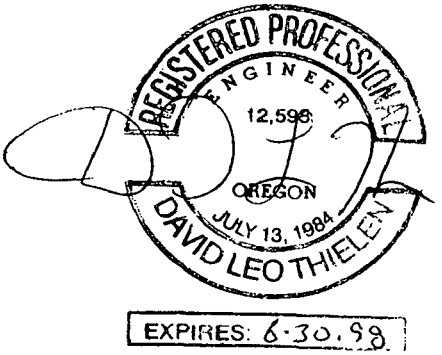
Piles driven through the sand-bentonite layer would displace but should not fracture the seal so that reasonable protection against vapor emissions around the piles would be maintained. Field monitoring should be maintained on a regular basis to record the level of any vapors within the work area and 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.

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.l1

Three copies submitted

cc: Mr. Amos Kamerer
Koppers Industries, Inc.
7540 Northwest St. Helens Road
Portland, Oregon 97210

Ms. Sandra Hart
Northwest Natural Gas Company
220 Northwest Second Avenue
Portland, Oregon 97209

Copyright © 1997 GeoEngineers, Inc., All rights reserved

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238

KOPPERS INDUSTRIES

Purchase Order

Date: April 8, 1997
Page: 1

Purchase Order # 3000-7-9021

Contact: RICHARD J. COOK, 412-826-3906

To: Geo Engineers
7504 SW Bridgeport Road
Portland, OR 97224

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	REQUISITION: J. DIETZ SOILS INVESTIGATION **FORM INS** **EXHIBIT A - OSHA COMPLIANCE**	
	Seller is to provide necessary personnel and insurance to perform the soils investigation tasks as outlined in sellers proposal dated 4/03/97, except for Item 5, at Koppers Industries' facility in Portland, OR.	NOT TO EXCEED $11,400.00
	This order is issued on a time and material not-to-exceed basis.	
	Contractor is required to have time sheets signed daily by proper Koppers Industries, Inc. supervisor. Time sheets are to indicate number of vendor's employees used, hours secured and area in which labor was used. Contractor is to include with each invoice a copy of said daily time sheets which will be used as backup for invoices. If, for any reason, the daily time sheets are not approved by proper Koppers Industries, Inc. supervisor, payment cannot be rendered.	
	PRIOR TO MAKING THE FIRST DELIVERY OR PERFORMING ANY SERVICE AGAINST THIS ORDER, SELLER IS REQUIRED TO SUBMIT ONE COPY OF AN INSURANCE CERTIFICATE IN ACCORDANCE WITH THE ATTACHED FORM INS (HIS AND ALL OF HIS SUBCONTRACTORS) CLEARLY SHOWING KOPPERS INDUSTRIES AS ADDITIONAL INSURED TO KOPPERS INDUSTRIES PLANT, ATTENTION PLANT MANAGER AND TO KOPPERS INDUSTRIES, INC., 1005 WILLIAM PITT WAY, PITTSBURGH, PA 15238-1362, ATTENTION THE UNDERSIGNED. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL CAUSE A DELAY IN RELEASES AND/OR CAUSE THIS ORDER TO BE TERMINATED.	
	CONTRACTOR AND/OR SELLER AGREES TO BE GOVERNED AND ABIDE BY THE RULES AND REGULATIONS AS SET FORTH IN PAMPHLET ENTITLED "SAFETY REGULATIONS FOR CONTRACTOR WORKING IN KOPPERS INDUSTRIES' PLANTS." A COPY OF THIS PAMPHLET IS TO BE OBTAINED FROM THE LOCAL PLANT MANAGER.	
	Send original and two copies of all invoices to: KOPPERS INDUSTRIES, INC. 1005 WILLIAM PITT WAY PITTSBURGH PA 15238 ATTENTION: J. DIETZ	RECEIVED APR 21 1997 KOPPERS INDS., INC. PORTLAND, OR

COPY

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238

KOPPERS INDUSTRIES

Purchase Order

Date: April 8, 1997
Page: 2

Purchase Order # 3000-7-9021
Contact: RICHARD J. COOK, 412-826-3906

To: Geo Engineers
7504 SW Bridgeport Road
Portland, OR 97224

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

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The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	Send one copy of all invoices to: KOPPERS INDUSTRIES, INC. PURCHASING DEPARTMENT 1005 WILLIAM PITT WAY PITTSBURGH, PA 15238 ATTENTION: RICHARD J. COOK **PRICE:** Based on seller's proposal dated 4/03/97 and time and materials rates therein **FOB:** Jobsite **SHIP:** As required **TERMS:** Net 30 days ALL FEDERAL EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION REQUIREMENTS IN REGARD TO RACE, SEX, RELIGION, NATIONAL ORIGIN, HANDICAP AND VIETNAM VETERAN OR DISABLED VETERAN STATUS, AS FOUND IN 41 CFR 60-1.4, 41 CFR 60-250.3, AND 41 CFR 741.3, ARE HEREIN INCORPORATED BY REFERENCE. KOPPERS INDUSTRIES IS ENTITLED TO ALL REMEDIES PURSUANT TO THE UNIFORM COMMERCIAL CODE. Confirming verbal order to Mr. Thielen, 4/04/97 - **DO NOT DUPLICATE** **PLEASE ACKNOWLEDGE YOUR ACCEPTANCE OF THIS ORDER BY SIGNING AND RETURNING THE ATTACHED COPY.** ACCEPTED BY: KOPPERS INDUSTRIES, INC. AUTHORIZED SIGNATURE RICHARD J. COOK/sad CC: J. Dietz - UPARC SELLER'S AUTHORIZED SIGNATURE TITLE PRINCIPAL TOTAL NOT TO EXCEED:	$11,400.00

RECEIVED
APR 21 1997
KOPPERS INDS., INC.
PORTLAND, OR

Author: <ISKOPPERS@aol.com> at internet
Date: 6/21/99 12:12 PM
Priority: Normal
TO: Amos Kamerer at PITT
Subject: project status
---------- Message Contents ----------

Portland Liquid Pitch Project
Project Update
June 21, 1999

Status of Civil Work:
The big event of the week took place on Friday, the 18th with the pouring of the pile cap. Harder was unprepared for the difficulty of working such a large volume of high-strength concrete. By 8:00 we had to slow down the delivery from 150 yards/hour to 100, and Harder brought in additional men and equipment. (Even Tom Howell and his boss were using vibrators and reinforcing re-bar ties during the pour) By 10:30 things were running smoothly and the finishers were starting to work on the north end of the pad. Harder kept 4 people over to cover the surface with plastic and Styrofoam insulation as soon as the concrete was set up enough to walk on.

I inserted three thermocouples into the concrete as instructed by CTL. And monitored them over the weekend. Unfortunately the upper thermocouple was damaged and pulled to the surface during the finishing work, and I did not notice it until too late to replace it. The two thermocouples, which were providing data, were never more than seven degrees apart and reached maximum temperatures of 166deg F Saturday afternoon. By Sunday, it was down to 161deg, and 154deg on Monday morning.

Status of Mechanical Work:
Most of the pipe supports in the oil heater area are completed. Work on the transfer line is progressing as expected. McDowell is planning to set the heater in place As soon as the footing for the final pipe support is finished, allowing access to the roadway east of the pad.

Status of Electrical Work:
Chandler electric is making good progress leveling the intermediate conduit supports, and running conduit. I will need to interrupt their progress on Tuesday in order to have some conduit rerouted to provide access to the ODEQ to the proposed area for their wells.

ODEQ Well:
The timing for digging the wells is closely related to the curing of the pile cap concrete and is therefor uncertain at this time. The latest word at this point is that the digging will take 5 days to complete. Along with the need for at least one full day of grading just to make the area accessible to them, This could create delays to other work in the tank area.

Charlie Norris
Construction Manager

Water
Batch Discharge Log.

SWING/GRAVEYARD SHIFTS
JOB ORDER

36,665 gal./foot

DATE: **DATE:**

In addition to your normal duties, please do the following:

Date	START	Signature	STOP	Signature	
10/11/99	6:00 PM	[signature]	10-12-99 0010 HRS	[signature]	9' 330,000 12 FT OFF
TUE 10/12/99	START @ 8:20	J. SUMMERFIELD	300 PM 20'-10"	J. Summerfield	9' 330,000
10-13-99	STOP 12 midnight	[signature]			
	12:30 START 10.13.99	[signature]			
	STOP 13' 10-13	J. SUMMERFIELD	STOP @ 33-9	J. Summerfield	13' 477,000
10/14	START 8:00 AM	[signature]			
10-15	STOP @ 0830	J. SUMMERFIELD	50'3" OFF	J. Summerfield	16.5' 605,000
10-18/99	11:30 51-8	[signature]			
12-8 @ 330		[signature]	STOP 10-19-99	300 PM 57'-9"	7.5 275,000
					3,017,000

Thank you,

T. J. Turner [signature]

AL1R 2010K

OREGON STATE DEPARTMENT OF AGRICULTURE

THIS LICENSE OR REGISTRATION IS SUBJECT TO THE PROVISIONS OF ORS 634

License type

COMMERCIAL PESTICIDE APPLICATOR
I-W.

licensee

OXFORD, JOHN A.
4708 NE 139TH AVE
VANCOUVER WA 98662

firm no. 00077415

business location

license no. 004583

Date issued 01/05/90

date expires 12/31/90

Fee paid $ 15.00

DATE CERTIFIED : 01/01/86 CREDITS RECORDED : 00

FORM 1014

POST THIS LICENSE IN A CONSPICUOUS PLACE

FORM 1014 REV. 5/93
OREGON DEPARTMENT OF AGRICULTURE
635 CAPITOL STREET NE
SALEM OR 97310-0110
(503) 378-3773

POST THIS LICENSE IN A CONSPICUOUS PLACE

LICENSEE
KOPPERS INDUSTRIES INC
AMOS S KAMERER
7540 NW ST HELENS RD
PORTLAND, OR 97210

FIRM NO.
077467 077467

BUSINESS LOCATION
7540 NW ST HELENS RD
PORTLAND, OR 97210

LICENSE TYPE	LICENSE NUMBER	DATE ISSUED	DATE EXPIRES	
65	81780	11/21/94	12/31/95	10.00

Pesticide Dealer License

Koppers019472

RECEIVED
NOV 23 1994
KOPPERS INDS., INC.
PORTLAND, OR

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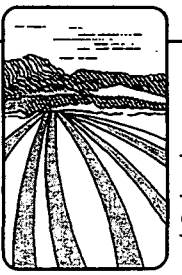

Oregon
Department
of Agriculture

TO: PRODUCERS, WHOLESALERS, RETAILERS AND DISTRIBUTORS OF AGRICULTURAL PESTICIDES

FROM: OREGON DEPARTMENT OF AGRICULTURE
PESTICIDE REGISTRATION/ENFORCEMENT SECTION

RECEIVED
OCT 11 1995
KOPPERS INDS., INC.
PORTLAND, OR

DATE: OCTOBER 9, 1995

RE: WORKER PROTECTION LABELING

Enclosed for your information is a complete copy of the U. S. Environmental Protection Agency's PR-Notice 95-5. This Notice explains the responsibilities regarding Worker Protection Standards (WPS) labeling of agricultural pesticides. Listed below are some of the key issues discussed:

1. **All agricultural pesticides must be labeled with WPS prior to sale or distribution by any person after October 23, 1995**

2. All products sold or distributed by registrants since April 21, 1994 were required to have amended labeling to include WPS.

3. Any agricultural pesticide **not** bearing WPS labeling must be relabeled either at a registered producer establishment or at the location of the product with registrant's written authorization and in accordance with this PR Notice.

4. New labels, complete with WPS, may be affixed to the product as specified.

5. Supplemental, **product specific**, labeling may be utilized if a "STOP sticker" (that meets specific requirements) is affixed to the existing label.

6. GENERIC LABELING may only be used for orphaned or canceled products as specified in this Notice. These products must bear a "STOP sticker".

7. A flow chart is included as "Attachment 1" which outlines the process of relabeling requirements for retailers and wholesalers.

ANY PRODUCTS NOT MEETING WPS LABEL REQUIREMENTS AFTER OCTOBER 23, 1995 MUST BE CLEARLY IDENTIFIED AS NOT BEING OFFERED FOR SALE OR DISTRIBUTION.

If you have any questions regarding WPS labeling requirements, please contact Jim Sandeno, Pesticide Registration Supervisor for for assistance at (503) 986-4647.

John A. Kitzhaber
Governor

10/18/95 per John Marcinowski
Not Applicable with Creosote
Creosote is Not AN "Agricultural" Pesticide

635 Capitol Street NE
Salem, OR 97310-0110

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 28 1995

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

To Retailers and Distributors of Agricultural Pesticides:

The Worker Protection Standard (WPS) for agricultural pesticides requires that any pesticide sold or distributed by any person (including pesticide retailers and distributors) after October 23, 1995, must bear labeling that complies with the WPS. The attached PR Notice tells you how to (1) recognize pesticide product labels in your possession that have not yet been revised to comply with WPS requirements and (2) modify these product labels to reflect WPS requirements, so that you may legally sell or distribute these products after October 23, 1995.

The WPS labeling regulations (40 CFR Part 156, subpart K) require that certain statements be placed on the labeling of all pesticide products within the scope of the WPS. These statements reference the WPS and certain practices to reduce or eliminate exposure from pesticides.

Registrants of affected pesticides were required to amend the product labeling by April 21, 1994, in accordance with PR Notice 93-7 and 93-11, to comply with WPS labeling requirements. Products sold or distributed by registrants since April 21, 1994, were required to have amended labeling (except for a limited number that were included in the "released for shipment" option in PR Notice 93-11) . However, you may have stocks of product that are within the scope of the WPS and do not have labeling that complies with the WPS.

Under this PR Notice, registrants, wholesalers, and retailers have various responsibilities to ensure that any relabeling takes place in accordance with this PR notice and the WPS. The document provides several options for relabeling. Relabeling may be conducted by the registrant by either recalling the product and relabeling with final printed replacement labeling at a registered establishment or by relabeling at the location of the product. If the registrant provides a written authorization, relabeling may also be performed by the retailer or wholesaler at the location of the product and in accordance with this PR notice. In addition, the PR notice allows the use of specified, product-specific, supplemental labeling, provided that it is given to the end-user whenever the product is offered for sale and accompanies the product at the time of sale and provided that a "STOP sticker" that meets certain requirements is affixed to the existing label. Finally, the notice sets a one-year timeframe, by which all products within the scope of the WPS must bear final, printed WPS replacement labeling (not supplemental labeling).

Daniel M. Barolo
Director
Office of Pesticide Programs

Recycled/Recyclable
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PR NOTICE 95-5

NOTICE TO MANUFACTURERS, FORMULATORS, PRODUCERS, REGISTRANTS, WHOLESALERS, AND SELLERS OF AGRICULTURAL PESTICIDES

Attention: **PERSONS RESPONSIBLE FOR REGISTRATION, SALE OR DISTRIBUTION OF PESTICIDE PRODUCTS**

Subject: **LABELING REVISIONS REQUIRED BY THE WORKER PROTECTION STANDARD (WPS) FOR SALE OR DISTRIBUTION OF CERTAIN AGRICULTURAL PESTICIDES AFTER OCTOBER 23, 1995**

This notice provides guidance to people who sell or distribute pesticides on: 1) how to recognize pesticide products in their possession that do not comply with the Worker Protection Standard (WPS) requirements, 2) how to bring all applicable product labels into compliance with WPS requirements, so that such products may be legally sold and distributed after October 23, 1995, 3) required actions by registrants, wholesalers, and retailers in relabeling products, and 4) the deadline of October 23, 1996, by which all products within the scope of the WPS must bear final, printed WPS replacement labeling (not supplemental labeling as described in this notice).

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TABLE OF CONTENTS

I.	Applicability of this Notice and Definitions	3
II.	How to recognize product labels that need to be amended to comply with the WPS	4
III.	How to revise product labels to comply with the WPS	5
	A. Required Action	5
	1. Registrant	
	2. Wholesaler	
	3. Retailer	
	B. Options for Relabeling	8
	1. Final printed replacement labeling	
	2. Supplemental product-specific labeling and STOP stickers	
	C. Where pesticide-specific relabeling may occur	12
IV.	How to revise product labels of *Special Products* to comply with the WPS	13
	A. Orphan or cancelled products	13
	B. Buy-out or transferred products	14
	C. Deleted-uses products	14
	D. Dormant products	15
V.	Waiver of submission of amended and final printed labeling which complies with this notice	16
VI.	Deadline for relabeling and final sale/distribution	16
VII.	For further information and assistance	16

Attachments

Attachment 1:	Flow Chart of Relabeling Process
Attachment 2:	Scope Criteria: Determining WPS Applicability to Individual Products (excerpt from PR Notice 93-7)
Attachment 3:	Example of Agricultural Use Requirement box
Attachment 4:	Single-Product, Product-Specific "SUPPLEMENTAL LABELING WITH WORKER PROTECTION REQUIREMENTS"
Attachment 5:	Multi-Product, Product-Specific "SUPPLEMENTAL LABELING WITH WORKER PROTECTION REQUIREMENTS" (brochure)
Attachment 6:	"SUPPLEMENTAL LABELING WITH GENERIC WORKER PROTECTION REQUIREMENTS"

I. Applicability of this Notice and Definitions

A. Applicability

This notice applies to pesticide products that are within the scope of the WPS, do not bear full WPS labeling, and are being sold or distributed by any person, other than the registrant of the pesticide. Under this notice the registrant has the option to either relabel the product or authorize the person(s) holding the product for distribution or sale to relabel the pesticide. Both the registrant and the person(s) holding such pesticides are responsible for relabeling these products in accordance with the WPS and this PR notice. This notice does not apply to growers, custom applicators, or other persons holding product for their own use, unless they also distribute and sell pesticides or are registrants.

The WPS labeling regulations (40 CFR Part 156, subpart K) require that certain statements be placed on the labeling of all pesticide products within the scope of the WPS. These statements reference the WPS and certain practices intended to reduce or eliminate human exposure to pesticides. The WPS establishes a schedule for meeting these labeling requirements:

The schedule required that by April 21, 1994, all registrants of pesticides covered by the WPS amend product labeling in accordance with PR Notice 93-7 and 93-11. Most products sold or distributed by registrants since April 21, 1994, should have labeling that complies with the WPS. However, wholesalers and retailers may have stocks of product that do not have WPS complying labeling. These stocks may originate from sources such as:

(1) products shipped by registrants before the April 21, 1994 date;

(2) products distributed or sold by registrants under the "released for shipment" option allowed under PR Notice 93-11 (products could be sold or distributed after April 21, 1994 without the WPS label if the registrant agreed to either (a) recall and relabel or (b) relabel them at wholesaler sites through an "authorized agent" of the registrant by April, 1996); and

(3) "deleted use" products, for which the registrant has amended the registration to delete certain uses thereby putting the product outside the scope of the WPS (see Section IV.C).

The WPS provides that any person other than a registrant (e.g., pesticide retailers or wholesalers) who has under their ownership, custody or control existing stock of product that is within the scope of the WPS but does not bear WPS labeling may NOT legally sell or distribute the product after October 23, 1995. The primary purpose of this

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notice is to describe the process for relabeling to come into compliance the deadline. As described above, wholesalers and retailers may have stocks of product which do not have labeling which complies with the WPS.

B. Definitions

The following definitions apply for the purposes of this notice:

Registrant:	Any person who has registered any pesticide pursuant to the provisions of the Federal Insecticide, Fungicide, Rodenticide Act (FIFRA). A supplemental distributor is considered an agent of the registrant.
Wholesaler:	Any person, other than a registrant, who distributes or sells pesticides to persons other than end-users.
Retailer:	Any person, other than a registrant, who distributes or sells pesticides to end-users.
Distribute or sell:	To distribute, sell, offer for sale, display, hold for distribution, hold for sale, hold for shipment, ship, deliver for shipment, release for shipment, or receive and (having so received) deliver or offer to deliver. These terms do not include the holding or application of registered pesticides or use dilutions thereof by any applicator who provides a service of controlling pests without delivering any unapplied pesticide to any person so served.
Label	The written, printed, or graphic matter on, or attached to, the pesticide or device or any of its containers or wrappers.
Labeling	All labels and all other written, printed, or graphic matter -- a) accompanying the pesticide or device; or b) to which reference is made on the label or in literature accompanying the pesticide or device.

II. How to recognize product labels that need to be amended to comply with the WPS

If a product has labeling required under the WPS, the labeling will have an Agricultural Use Requirements box and can be sold or distributed after October 23, 1995 without further action. The Agricultural Use Requirements box references the WPS and requires certain practices intended to reduce or eliminate worker and handler exposure

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from pesticides. The box includes restricted-entry intervals, personal protective equipment, and the notification requirement for pesticide-treated areas. An example of an Agricultural Use Requirements box is in Attachment 3.

If a product's labeling does not have an Agricultural Use Requirements box, you will need to determine whether it is within the scope of the WPS and, therefore, requires WPS labeling. In some cases you may be able to quickly identify a product that requires WPS labeling because other containers of the same product, that have been produced more recently, bear the following:

- Labeling with an Agricultural Use Requirements box that refers to the WPS; or
- Stickers referring to supplemental replacement labeling which contains such an Agricultural Use Requirements box.

Products accompanied only by generic supplemental labeling as outlined in PR Notice 93-11 are not considered labeled in compliance with the WPS provisions after October 23, 1995. Products that do bear complying WPS labeling include those relabeled in accordance with Supplement D of PR Notice 93-11 (by using a sticker or similar modification to an existing label and full product-specific labeling referenced by the sticker).

To determine whether any product is within the scope of the WPS, refer to Attachment 2 (Determining WPS Applicability to Individual Products) or call the registrant of the product. To get additional assistance, you may contact an industry-sponsored "WPS Task Force" at 1-800-713-2291, after October 15, 1995.

III. How to revise product labels to comply with the WPS

A. Required Actions

1. Registrant

- **Conduct or authorize relabeling.** Registrants are responsible for ensuring that relabeling of non-complying products takes place in accordance with the WPS and this PR Notice. They may choose to conduct relabeling by recalling the product and relabeling with final printed replacement labeling at a registered establishment or relabeling at the location of the product; or authorize a wholesaler or retailer to relabel in accordance with this PR notice.

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Refer to Sections III.B. and IV. which provide options and required specifications for relabeling.

- **Provide written authorization for relabeling to retailers and wholesalers.** The registrant must provide a written authorization to a wholesaler or retailer who agrees to relabel non-complying product. The authorization should outline the specific roles of the retailer, wholesaler, and registrant in relabeling. Registrants are fully responsible for ensuring that labeling modifications are carried out correctly by any person or company they authorize. Any limitations on who may be authorized to carry out relabeling under this PR Notice must be explicit in the authorization document. The authorization cannot change the responsibilities of any of the parts or terms of this PR notice. **(Notice: Any relabeling of products with WPS labels must be in cooperation with all involved parties, and under the written authorization of the registrant.)**

- **Provide product-specific WPS labeling.** The registrant must provide labeling, to those they authorize to conduct relabeling, that complies with the WPS and this PR notice (including "STOP stickers," if supplemental labeling is used -- see Section III.B.2 and IV. for a description and specifications for "STOP stickers") for all products within the scope of the WPS. The next sections describe options and established requirements for labels, labeling, and "STOP stickers."

2. Wholesaler

Wholesalers (any person, other than registrants, who distributes or sells pesticides to persons other than end-users) must take the following actions:

- **Registrant authorization for relabeling at wholesaler establishment.** The registrant may **authorize** a wholesaler, retailer or other person(s) to perform relabeling. Any relabeling of products must be performed under the written authorization of the registrant. (See Section III.A.1) If the registrant will not perform relabeling or authorize you or another party to relabel, you should contact EPA's Registration Division **(703-305-6250)** for instructions on how to proceed with those products.

  Refer to Sections III.B. and IV. which provide options and required specifications for relabeling.

- **Do not distribute products, except as permitted by this Notice.** Products within the scope of the WPS that do not bear WPS labeling may not be

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legally distributed or sold after October 23, 1995. However this PR notice allows the wholesaler to ship non-complying product prior to relabeling, if (1) the wholesaler has notified and obtained agreement of the receiving person(s) to ensure that WPS relabeling will occur before the product is 'offered for sale' or distribution to the end user and (2) the registrant will either conduct or has authorized relabeling. For the purposes of this PR notice only, pesticides are considered "offered for sale" whenever they are available in areas accessible to customers, unless they are clearly identified as products which may not be sold until relabeled.

- **Industry-sponsored assistance.** To get assistance in relabeling products to comply with the WPS, you may contact the industry-sponsored "WPS Task Force" at 1-800-713-2291, after October 15, 1995. This service will help identify which specific products are covered by the WPS and need WPS-complying labeling and distribute STOP stickers and required WPS supplemental labeling for registrants participating in the service. Other requests will be referred to other organizations.

3. **Retailer**

Retailers (any person, other than registrants, who distributes or sells pesticides to end-users) must take the following actions:

- **Do not offer for sale after October 23, 1995, except as allowed by this Notice.** Products may not be distributed or sold after October 23, 1995 unless they comply with the WPS. This PR notice allows products to be relabeled under certain specifications prior to being "offered for sale." For the purposes of this PR notice only, pesticides are considered "offered for sale" whenever they are available in areas accessible to customers, unless they are clearly identified as products which may not be sold until relabeled.

- **Registrant authorization for relabeling at retailer establishment.** The registrant may authorize a wholesaler, retailer or other person(s) to perform such relabeling. Any relabeling of products must be performed under the written authorization of the registrant. (See Section III.A.1) If the registrant will not perform relabeling or authorize you or another party to relabel, you should contact EPA's Registration Division (703-305-6250) for instructions on how to proceed with those products.

  Refer to Sections III.B. and IV. which provide options and required specifications for relabeling.

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- **Industry-sponsored assistance.** To get assistance in relabeling products to comply with the WPS, you may contact the industry-sponsored "WPS Task Force" at 1-800-713-2291, after October 15, 1995. This service will help identify which specific products are covered by the WPS and need WPS-complying labeling and distribute STOP stickers and required WPS supplemental labeling for registrants participating in the service. Other requests will be referred to other organizations.

B. Options for Relabeling

The options described below apply to the majority of products covered by this PR Notice, i.e., stocks of registered products subject to the WPS which do not have required WPS labeling. Other products are described and addressed in Section IV. as "Special Products."

1. Final printed WPS-complying replacement labeling

Products may be relabeled by replacing existing labeling with final printed WPS-complying replacement labeling supplied by the registrant of the product. Such labeling must be printed on or affixed to the product package. If affixed, it must be difficult to remove without residue or damage to the underlying packaging or labeling it is replacing. If final printed replacement labeling is used, it must meet the above standards as well as those required by the WPS.

Replacement labeling may also be designed to modify existing labeling by adding the required WPS labeling statements without replacing the entire existing labeling. If this option is chosen, the replacement labeling must be designed and affixed in such a way so as to not alter or obscure the other portions of the label text that remain unchanged. Under this option, an additional supplement containing WPS requirements can not be developed. Additionally, replacement labeling must be affixed in such a manner as to cover any existing labeling statements or requirements that are superseded by WPS requirements.

If the product bears existing labeling on the outer packaging and the immediate container, the replacement labeling must be affixed to both. NOTE: For inner water soluble packages, the outer package, but not the immediate container, will require replacement labeling.

2. Supplemental product-specific labeling

Alternatively, products may be relabeled by using supplemental product-specific labeling that is provided with each product when it is offered for sale to the end user,

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provided that a "STOP sticker" is affixed to the label and the sticker meets the requirements as specified below. The supplemental product-specific labeling must be supplied by the registrant of the product.

Supplemental labeling can be presented in two formats:

- **Single-Product Supplement** that contains labeling information for only the specific product the end-user is buying. This labeling must display the full text of current product labeling or partial text that includes complete WPS-complying labeling (as EPA-accepted or registrant-verified). See attachment 4 for an example; OR

- **Multi-Product Supplement** that contains labeling information for all products for a specific registrant. WPS information required to appear on all product labels may appear in the brochure only once, along with product-specific WPS information presented for each product covered by the brochure. The generic (non product specific) information must be part of the brochure. This option is NOT available for fumigant products because of the specialized nature of the fumigant label. See attachment 5 for an example of a brochure.

Supplemental Product-Specific Labeling Specifications

Supplemental replacement labeling must meet the following specifications:

- **Title** -- The supplemental labeling must prominently bear the words "SUPPLEMENTAL LABELING WITH WORKER PROTECTION REQUIREMENTS" at the top of the first page or be in a pouch prominently displaying the words "SUPPLEMENTAL LABELING WITH WORKER PROTECTION REQUIREMENTS," attached to the container.

- **Content** -- Supplemental labeling can be presented in a single-product supplement or a multi-product brochure. **Single-product supplements** include labeling information for only the product the end-user is buying. These supplements will contain either the full text of current product labeling or the partial text that includes only the complete WPS product labeling information, a contact phone number for the registrant, and no other information unrelated to the products' labeling. See attachment 4 for an example of a single-product supplement.

  Multi-product brochures must contain complete WPS product labeling information for all products that are within scope of the WPS for the

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registrant, a contact phone number for the registrant, and no other information unrelated to the products' labeling. If a brochure includes multiple products with similar names (e.g., Weed Killer 4EC, Weed Killer 10WP), the brochure must contain an advisory statement located near such a grouping reminding users to carefully match the WPS requirements in the brochure with the particular product they are using. See attachment 5 for an example of a multi-product brochure. This option is NOT available for fumigant products.

Supplemental distributors must develop separate brochures using their product names if these names differ from the registrant's product names. However, "buyout/transferred," "orphaned/ cancelled," and "dormant" products for which WPS label language has been approved by EPA (all described in Section IV) may be included in the same brochure if the following conditions are met. "Buyout/transferred" products can be included only if both registration numbers are listed in the reference table and the brochure cover specifies previous registrants' names represented on the "transferred" products' labels and that these products have been transferred to the existing registrant, (e.g., this brochure also contains products previously owned by companies B, C, and D but now owned by company A...). If "orphaned / cancelled" products are included, then the reference table should specify "cancelled: generic instructions" for each such product and should indicate the specific generic requirements for each particular pesticide's label (requirements will vary with different labels -- see attachment 6).

Optional information for both single-product supplements and multi-product brochures includes: complete registrant identification, including company logo; statements clearly connecting the brochure with the "STOP stickered" product; footnotes explaining chemical resistant categories for gloves, respirators, etc.; statements to clarify information given in the brochure; and statements concerning discarding, washing, or maintenance of personal protective equipment, user safety recommendations, Spanish language warnings, and Engineering Control Statements.

- **Highlighting** -- If the registrant has chosen to use a multi-product brochure, instead of a single-product supplement, EPA strongly encourages that the wholesaler or retailer highlight or clearly identify in the brochure the specific product(s) being sold or distributed to the end user. This will assist the end-user in quickly identifying the requirements for the specific product before pesticide application.

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- **Location** -- EPA strongly encourages physically attaching the supplemental labeling to product containers to ensure end-users receive the supplemental labeling. (Note: It is a violation of the WPS and this notice to sell or distribute products with non-complying labels or "offer such products for sale", to the end-user without providing the appropriate supplemental labeling.) If the labeling is not attached, it must be located in close physical proximity (i.e., immediately adjacent or next to) and accompany the product when the product is offered for sale to the end-user. When products are "offered for sale" to the end user, the supplemental labeling must be placed in such a way that it is clear which labeling corresponds to which product. Therefore, single-product supplemental labeling for different products and multi-product brochures for different registrants should not be mixed.

- **Format** -- The supplemental replacement labeling may be photocopied, provided all text is legible. Illegible photocopies and faxes are unacceptable. The User Safety Recommendations and Agricultural Use Requirements must each be located in a clearly separate box with lines or other graphic indicators to separate them from the surrounding text. Location and formatting of supplemental label information should be consistent with PR Notices 93-7 and 93-11 to the extent possible.

"STOP Sticker" Specifications

If supplemental product-specific labeling will be used (instead of final printed replacement labeling as defined in Section III.B.1) a "STOP sticker" must be applied only to those products that bear a label which has not been revised to comply with complete WPS requirements. If multiple products are contained on pallets or in shipping containers, these containers must be opened and a "STOP sticker" must be affixed to each individual product container and outside container before the product is offered for sale to the end-user. (The immediate containers of water soluble packages do not have to be stickered.)

"Stickering" of products must be carried out according to the following specifications:

- **Required Text** -- "STOP! Use this product only in accordance with the Worker Protection Standard, 40 CFR Part 170, and the "SUPPLEMENTAL LABELING WITH WORKER PROTECTION REQUIREMENTS," which must be provided when the product is offered for sale. Otherwise, you are in violation of FIFRA. For more copies of the labeling, contact your dealer or call 1-800-713-2291.

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- **Product labels that must not receive stickers** -- "STOP stickers" must NOT be applied to product labels that already comply with WPS requirements or that do not require a WPS label. For instance, deleted-use products discussed in Chapter IV of this document must not receive a sticker or WPS labeling.

- **Timing** -- The sticker must be affixed to the product container prior to the time the product is offered for sale to the end-user.

- **Prominence** -- The sticker must be legible and prominent on the product package through use of contrasting colors or other graphic devices and must be placed on the label of each product container.

- **Location** -- It must be printed on or affixed to the product container. If affixed, it must be difficult to remove without residue or damage to underlying packaging or labeling and it must not be located on the bottom of the package or any other place that will not readily be noticed by users. If the product bears labeling on both outer packaging and immediate container, the sticker must be affixed to both. However, inner water soluble packages need not be modified under this approach.

- **Obscuring Existing Language** -- The sticker must not obscure any information on the existing label.

- **Highlighting Specific Products in Brochures.** EPA strongly encourages that the retailer highlight or clearly identify in the brochure the specific product(s) being sold or distributed to the end user. This will assist the end-user in quickly identifying the requirements for the specific product before pesticide application.

C. Where relabeling may occur

WPS-related relabeling under this PR Notice may occur at any site (such as wholesale or retail sites) without registration of the site as a pesticide-producing establishment. Under this PR Notice, relabeling of stocks of products with non-complying labels may only be carried out by persons acting under the authority of the registrant as an "authorized agent" of the registrant.

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IV. How to revise product labels of *Special Products* to comply with the WPS

A. Orphaned or Cancelled Products

These products are those whose registrants are no longer in business or have been cancelled pursuant to FIFRA Section 4 or 6. Both have not been transferred to another registrant (for "transfers" of registrations or "buyouts" see IV.B.)

EPA will allow sale or distribution of a pesticide product which is an orphaned or cancelled product, after October 23, 1995, provided the product labeling is first modified to comply with the requirements below. Labels of orphan or cancelled products may be modified by using a "STOP sticker" and generic supplemental labeling that is provided when the product is being offered for sale to the end-user and meets certain requirements as specified below. WPS-related relabeling under this PR Notice, including generic supplemental labeling may occur at any site (except a registrant's site) by any retailer or wholesaler.

The required generic supplemental labeling is attached to this notice (see Attachment 6). The fumigant generic supplemental labeling must be furnished to purchasers of agricultural fumigants; the non-fumigant generic supplemental labeling must be furnished to purchasers of all other agricultural pesticides, except ethyl parathion products.

NOTE: ETHYL PARATHION PRODUCTS: Holders of stocks on products without WPS-complying labels may not use the option of generic supplemental labeling described below and should contact the registrant of such products or, if necessary, EPA for guidance.

<u>Supplemental generic labeling specifications</u>

- **Title** -- The supplemental labeling must prominently bear the words "SUPPLEMENTAL LABELING WITH GENERIC WORKER PROTECTION REQUIREMENTS" at the top of the first page or be in a pouch prominently displaying the words "SUPPLEMENTAL LABELING WITH GENERIC WORKER PROTECTION REQUIREMENTS" attached to the container.

- **Content** -- As appropriate to the type of product, the generic supplemental labeling must contain the complete text of the labeling contained in Attachment 6 in this notice.

- **Location** -- EPA strongly encourages physical attachment of the supplemental labeling to product containers to ensure end-users receive the

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supplemental labeling. (Note: It is a violation of the WPS and this notice to sell or distribute products with non-complying labels or offer such products for sale, to the end-user without providing the appropriate supplemental labeling.) If the labeling is not attached, it must be located in close physical proximity to (i.e., immediately adjacent or next to) and accompany the product when the product is offered for sale to the end-user. See specifically Section II.B. 2 "Supplemental Product-Specific Labeling Specification" -- "Content" and "Highlighting" for information about cancelled or orphaned products listed in multi-product brochures.

- **Format** -- The generic supplemental labeling should be similar to that attached to this notice, with all text legible.

"STOP Sticker" Specifications for Generic Supplemental Labeling

"Stickering" of orphaned or cancelled products is only allowed according to the specifications in Section III.B.2.

B. **Buy-out or transferred products**

These are stocks of products that have been transferred to another registrant who has responsibility for the product's registration. The existing stocks have the original company's name and registration number.

The new registrant may choose one of the following options to deal with these products:

- **Recall and relabel/repackage** -- Recall the products and repackage/relabel them at a registered establishment with final printed replacement labeling, or

- **Product-specific relabeling** -- Conduct or authorize relabeling of products with either final printed product-specific, WPS-complying replacement labeling or supplemental product-specific replacement labeling and a "STOP sticker" that meets certain requirements. Relabeling must occur in accordance with Section II.B. See specifically Section II.B. 2 "Supplemental Product-Specific Labeling Specification" -- "Content" for information about including "transferred" products in multi-product brochures. **Note: Generic Supplemental Labeling may NOT be used for these products.**

C. **Deleted-Use Products**

These are products for which the registrant has amended the registration to delete

Koppers019489

certain uses thereby making the product outside the scope of the WPS. There may be existing stocks of such products that still have the previous label and are thus within the WPS scope.

The registrant should choose one of the following options to relabel these products:

- **Recall and repackage/relabel** -- Recall the products and repackage/relabel them at a registered establishment with the current labeling that has been amended to delete WPS uses.

- **Product-specific relabeling** -- Conduct or provide a written authorization for relabeling of products with the current labeling that has been amended to delete any WPS uses. Products can be relabeled by replacing existing labeling with the current final printed replacement labeling or marking/blocking out all WPS uses and references to WPS uses (e.g., use directions).

  If final printed replacement labeling is used, the amended labeling must completely block the previous label. It must be securely affixed to the product package and be difficult to remove without residue or damage to the underlying packing or labeling. If the option to mark/block out all WPS references is chosen, all WPS uses and references to WPS uses must be completely blocked and no other portions of the label text that remain unchanged must be altered or obscured.

If the registrant is unwilling to recall, relabel, or authorize relabeling as described above, you should contact EPA's Registration Division (703-305-6250) for instructions on how to proceed with those products.

D. Dormant Products

These are products where no quantity of the product has been produced and distributed after April 21, 1994 and for which registrants elected to defer labeling amendments. If there are products left in the channels of trade, they must not be sold or distributed after October 23, 1995. In this situation, the registrant has these options:

- **Product-specific relabeling** -- Amend the product registration to include the WPS requirements and either (1) recall and relabel/repackage or (2) conduct or provide a written authorization for relabeling of products at the product's location in accordance with Section III. of this notice.

- **Relabeling with non-WPS label** -- Amend the product registration to delete any WPS uses and either (1) recall and relabel/repackage or (2) conduct or provide a

Koppers019490

written authorization for relabeling of products at the product's location with the updated, non-WPS label (follow Section IV.C); OR

- **Generic labeling** -- Voluntarily cancel the registration and follow all requirements in Section IV. A., for orphaned or cancelled products, which describes relabeling with supplemental generic replacement labeling;

V. Waiver of submission of amended and final printed labeling which complies with this notice

Normally, amendments to labels and labeling are accomplished either by submission of an application or a notification to EPA. However, because the labeling of products subject to this notice has already been amended and because submission of the generic supplemental labeling and STOP stickers would serve no purpose, EPA waives the requirement for submission of any labeling or supplemental labeling which has been amended in accordance with this PR Notice [40 CFR 152.44(b)(1)]. Similarly, EPA waives the requirement for submission of final, printed labeling of generic supplemental labeling or STOP stickers which comply with this PR Notice.

VI. Deadline for relabeling and final sale

By October 23, 1996, all products being distributed or sold must bear **final printed, WPS-complying, replacement labeling** that conforms to III.B.1. of this PR Notice. Supplemental product-specific replacement labeling will NOT be allowed after this date.

Retailers or wholesalers of orphan or cancelled products may still use generic supplemental replacement labeling and "STOP stickers" in accordance of IV. A. of this PR Notice after October 23, 1996.

VII. For further information and assistance

Information and assistance is available from an industry-sponsored "WPS Task Force" at 1-800-713-2291 after October 15, 1995. Additionally, the EPA headquarters number for assistance is (703) 305-6250.

Daniel M. Barolo, Director
Office of Pesticide Programs

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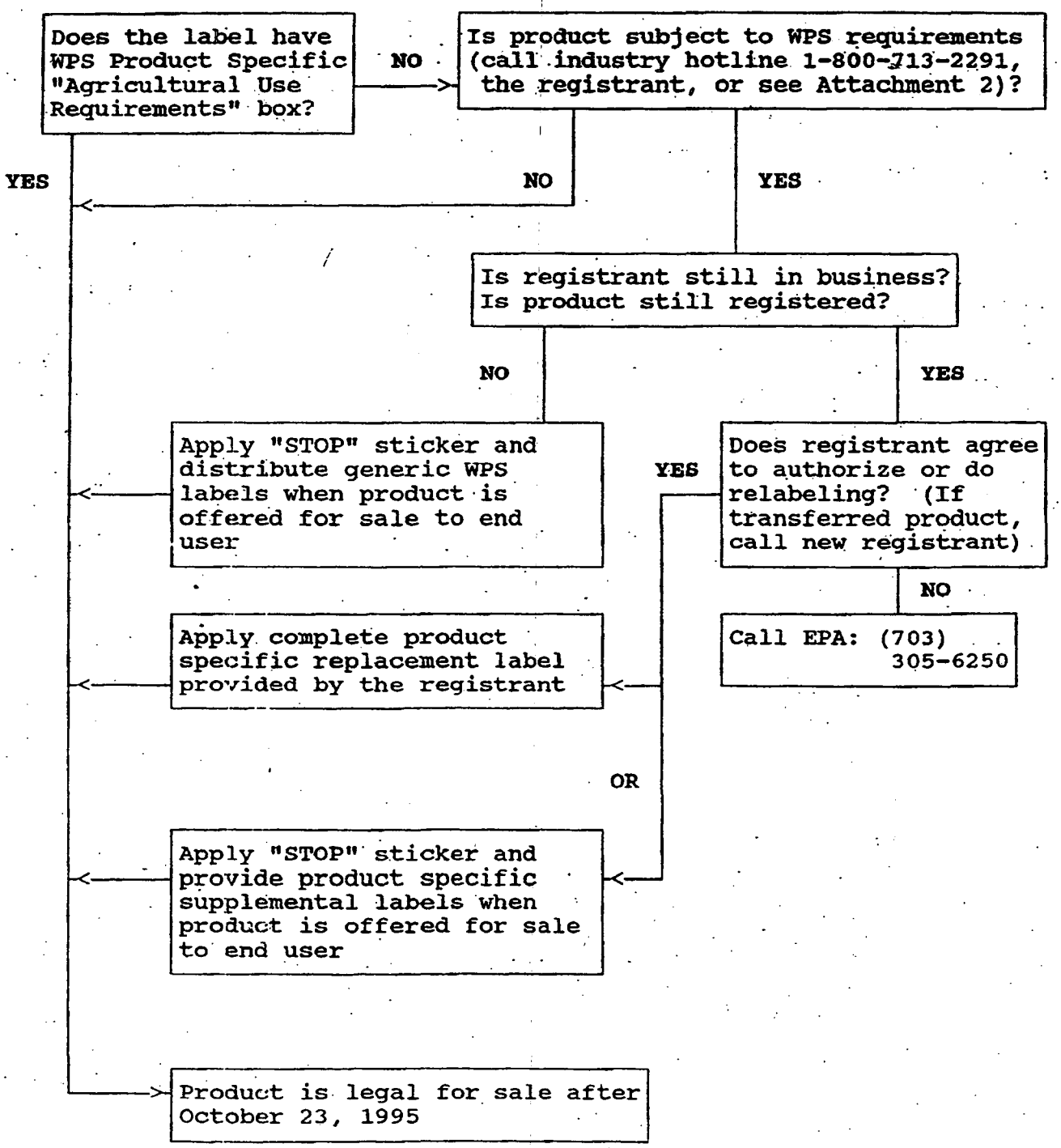
ATTACHMENT 1

WPS RELABELING PROCESS FOR RETAILERS AND WHOLESALERS



ATTACHMENT 2

Scope Criteria: Determining applicability to individual products

(Excerpt from PRN 93-7)

To determine whether pesticide products (that do not already bear labeling containing WPS requirements in an Agricultural Requirements box) fall within the scope of this notice, answer the questions below for each of them.

☞ Begin here for each product:

A. Does the labeling contain directions for application to

- Plants grown to produce food, feed, or fiber?
- Turfgrass?
- Ornamental plants, trees, or shrubs?
- Plants grown to produce seedlings or transplants?
- Plants grown to produce cut flowers or cut ferns?
- Trees grown to produce timber?
- Areas where any such plants are growing?
- Areas where such plants will soon be grown (i.e., pre-plant or at-plant application)?
- Areas from which such plants have just been harvested?

If you answered "YES" to any of these questions, this product may be within the scope of this notice. Go on to question B.

If you answered "NO" to all of these questions, this product is NOT within the scope of this notice. Begin again with question A for your next product.

B. Does the labeling explicitly limit application ONLY to plants intended for aesthetic purposes or climate modification and growing in interior plantscapes, ornamental gardens or parks, or on golf courses or lawns and grounds?

If you answered "YES", this product is NOT within the scope of this notice. Begin again with question A for the next product.

If you answered "NO", this product may be within the scope of this notice. Go on to question C.

C. Does the labeling explicitly limit uses ONLY to those NOT directly related to the production of food, feed, fiber, timber, turfgrass, or ornamentals, such as the following:

- ► Use on pasture or rangeland;
- ► Use on rights-of-way or other non-crop areas;
- ► Use for structural pest control; or
- ► Use for mosquito abatement, Mediterranean fruit fly eradication, or in other wide-area government-sponsored pest control programs?

If you answered "YES" to this question, this product is NOT within the scope of this notice. Begin again with question A for the next product.

If you answered "NO" to this question, this product may be within the scope of this notice. Go on to question D.

D. Does the labeling contain directions only for one or more of the following:

- ► Control of vertebrate pests;
- ► Use as an attractant in traps;
- ► Use on the portions of agricultural plants that have been harvested, including harvested timber; or
- ► Application using a point-source pheromone dispenser of a size easily retrieved from the field, such as a "twist-tie"?

If you answered "YES" to this question, this product is NOT within the scope of this notice. Begin again with question A for the next product.

If you answered "NO" to this question, this product may be within the scope of this notice. Go on to question E.

E. Is the product labeled PRIMARILY for use in production of plants in homes, home flower or vegetable gardens, home lawns, or home greenhouses? Answer "yes" to this question only if the current labeling meets ALL the following tests:

1. The labeling indicates that the product is intended for use in or around the home, home flower or vegetable garden, home lawn, or home greenhouse; AND

2. The labeling does NOT include any of the following directions or phrases:

   - ► Skull and crossbones symbol and word "Poison";
   - ► A requirement for users to wear a respirator;

- A requirement for users to wear chemical-resistant, waterproof, or liquid-proof suits or coveralls or "rainsuits";
- The phrase "for professional use";
- The phrase "for commercial use";
- Directions for use on farms, sod farms, forests, nurseries, or greenhouses except home greenhouses;
- Directions for use including the phrases "for crop production" or "for sod production";
- Application rates expressed per acre;
- Dilution rates expressed per hundred gallons;
- Directions for application by aerial, ground-boom, airblast or other motor-driven vehicles or equipment;
- Directions for use of a "surfactant", "buffer", or "adjuvant", using those words;
- Any reference to chemigation;
- Directions for mechanical agitation;
- Instructions or restrictions concerning livestock grazing; AND

3. The product is packaged in a container holding no more than 40 pounds if the product is a solid, or 2 gallons if it is a liquid, or 2 pounds if it is an aerosol.

If all three tests (E. 1, 2, & 3) above are fully satisfied, this product is NOT within the scope of this notice. Begin again with question A for the next product.

If any of these three tests is <u>not</u> fully satisfied, THIS PRODUCT IS WITHIN THE SCOPE OF THIS NOTICE. (If the product does not satisfy all these three tests but you believe it is nonetheless intended primarily for home use or is otherwise limited to use on plants grown for other than commercial or research purposes, check with the registrant. Start again with question A for the next product.

ATTACHMENT 3

EXAMPLE OF AGRICULTURAL USE REQUIREMENT BOX

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements in this labeling about personal protective equipment, restricted-entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that envolves contact with anything that has been treated, such as plants, soil, or water is:

Coveralls over long-sleeved shirt & long pants
Chemical-resistant gloves, such as barrier laminate or viton
Chemical-resistant footwear plus socks
Protective eyewear
Chemical-resistant headgear for overhead exposure

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

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ATTACHMENT 4

Single-Product

Product-Specific
(example)

"SUPPLEMENTAL LABELING WITH WORKER PROTECTION REQUIREMENTS"

Product Name, Company Name, EPA Reg. No.

For compliance with the Worker Protection Standard (40 CFR part 170):

IMPORTANT: This supplemental labeling does not apply (1) to soil or space fumigant products, (2) to products containing ethyl parathion, or (3) if elsewhere on the product labeling an Agricultural Use Requirements box requires compliance with the Worker Protection Standard (40 CFR Part 170).

When this product is used on an agricultural establishment (farm, forest, nursery, or greenhouse) for the commercial or research production of agricultural plants, users must comply with the instructions in this supplemental labeling. Users who must comply with these instructions include owners/operators of the agricultural establishment and owners/operators of commercial businesses that are hired to apply pesticides on the agricultural establishment or to perform crop-advising tasks on such establishments. Failure to comply with the requirements on this supplemental labeling and with the Worker Protection Standard (40 CFR part 170) is a violation of Federal law, since it is illegal to use a pesticide product in a manner inconsistent with its labeling.

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AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements in this labeling about personal protective equipment, restricted-entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Entry-Restrictions: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of ?? hours/days.

Notification Instructions:(If required) Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

Personal Protective Equipment (PPE) Requirements:

Handler PPE: Applicators and other handlers must wear:

Coveralls over long-sleeved shirt & long pants
Chemical-resistant gloves such as barrier laminate or viton
Chemical-resistant footwear plus socks
Protective eyewear
Chemical-resistant headgear for overhead exposure
Chemical-resistant apron when cleaning equipment, mixing, or loading

Early Entry PPE: PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that envolves contact with anythin that has been treated, such as plants, soil, or water is:

Coveralls over long-sleeved shirt & long pants
Chemical-resistant gloves such as barrier laminate or viton
Chemical-resistant footwear plus socks
Protective eyewear
Chemical-resistant headgear for overhead exposure

Conflicting Instructions: If the requirements of the WPS conflict with instructions listed elsewhere on this product label, users must obey the more protective requirements.

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ATTACHMENT 5

(This option is NOT available for fumigant products because of the specialized nature of the fumigant label.)

Multi-Product
Product-Specific
(example)

"SUPPLEMENTAL LABELING WITH WORKER PROTECTION REQUIREMENTS"

For compliance with the Worker Protection Standard (40 CFR part 170)

IMPORTANT: This supplemental labeling does not apply (1) to soil or space fumigant products, (2) to products containing ethyl parathion, or (3) if elsewhere on the product labeling an Agricultural Use Requirements box requires compliance with the Worker Protection Standard (40 CFR Part 170).

When this product is used on an agricultural establishment (farm, forest, nursery, or greenhouse) for the commercial or research production of agricultural plants, users must comply with the instructions in this supplemental labeling. Users who must comply with these instructions include owners/operators of the agricultural establishment and owners/operators of commercial businesses that are hired to apply pesticides on the agricultural establishment or to perform crop-advising tasks on such establishments. Failure to comply with the requirements on this supplemental labeling and with the Worker Protection Standard (40 CFR part 170) is a violation of Federal law, since it is illegal to use a pesticide product in a manner inconsistent with its labeling.

REFERENCE TABLE

Product Name	Active Ingredient	EPA Reg. No.	REI	Personal Protective Equipment for Handlers	Personal Protective Equipment for Early Entry Workers	Double Notification Required?
Weed Killer 10G granules Advisory: Similar names. Match WPS reqts. carefully with products.	dicarbamom	9999-1	12	Handlers must wear: • long sleeve shirt and long pants • waterproof gloves • shoes plus socks • protective eyewear	Early entry workers must wear: • coveralls • waterproof gloves • shoes plus socks • protective eyewear	NO Only Oral
Weed Killer 10WP	dicarbamon and tribamocarb	9999-2	48	Mixers and loaders must wear: • coveralls over short-sleeved shirt and short pants • Waterproof gloves • chemical resistant shoes plus socks • chemical resistant headgear for overhead exposure • chemical resistant apron • dust/mist filtering respirator (MSHA/NIOSH TC-21C) Applicators and other handlers must wear: • coveralls over short-sleeve and short pants • Waterproof gloves • chemical resistant shoes plus socks • chemical resistant headgear for overhead exposure • chemical resistant apron when cleaning equipment	Early entry workers must wear: • coveralls over short-sleeved shirt and short pants • chemical-resistant gloves • chemical-resistant shoes plus socks • protective eyewear • chemical-resistant headgear for overhead exposure	NO Only Oral

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Product Name	Active Ingredient	EPA Reg. No.	REI	Personal Protective Equipment for Handlers	Personal Protective Equipment for Early Entry Workers	Double Notification Required?
Weed/ Insect Killer Super 8EC	dicarbamon and tribenocarb and oxyethylion	9999-3	48, 72 hr in arid areas	Applicators and other handlers must wear: • coveralls over long sleeve shirt and long pants • chemical resistant gloves, such as barrier laminate or viton, • chemical resistant footwear • chemical resistant headgear for overhead exposure • protective eyewear • For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a pesticide prefilter (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides MSHA/NIOSH approval number prefix TC-14C) • For exposures outdoors, a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)	Early entry PPE: • coveralls over long sleeve shirt and long pants • chemical resistant gloves • chemical resistant footwear • chemical resistant headgear for overhead exposure • protective eyewear	YES Oral and Posting
etc....						
etc....						

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"SUPPLEMENTAL LABELING WITH GENERIC WORKER PROTECTION REQUIREMENTS"

FOR AGRICULTURAL FUMIGANTS

For compliance with the Worker Protection Standard (40 CFR part 170)

IMPORTANT: This supplemental labeling applies ONLY to soil or space fumigant products used in the production of agricultural plants. It does not apply if elsewhere on the product labeling an Agricultural Use Requirements box requires compliance with the Worker Protection Standard (40 CFR Part 170).

When this product is used on an agricultural establishment (farm, forest, nursery, or greenhouse) for the commercial or research production of agricultural plants, users must comply with the instructions in this supplemental labeling. Users who must comply with these instructions include owners/operators of the agricultural establishment and owners/operators of commercial businesses that are hired to apply pesticides on the agricultural establishment or to perform crop-advising tasks on such establishments. Failure to comply with the requirements on this supplemental labeling and with the Worker Protection Standard (40 CFR part 170) is a violation of Federal law, since it is illegal to use a pesticide product in a manner inconsistent with its labeling.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements in this labeling about personal protective equipment, restricted-entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Entry-Restrictions: Follow the applicable entry restrictions listed elsewhere on the product labeling.

Notification Instructions: Follow the rules in the WPS for notifying workers of the application. Exception: If there are instructions listed elsewhere on the product labeling that requires the posting of specific signs at treated areas, you must notify workers of the application by warning them orally AND by posting the signs specified on the labeling.

Personal Protective Equipment (PPE) Requirements: Follow the applicable PPE instructions (if any) listed elsewhere on the labeling.

Conflicting Instructions: If the requirements of the WPS conflict with instructions listed elsewhere on this product label, users must obey the more protective requirements.

"SUPPLEMENTAL LABELING WITH GENERIC WORKER PROTECTION REQUIREMENTS"

For compliance with the Worker Protection Standard (40 CFR part 170)

IMPORTANT: This supplemental labeling does not apply (1) to soil or space fumigant products, (2) to products containing ethyl parathion, or (3) if elsewhere on the product labeling an Agricultural Use Requirements box requires compliance with the Worker Protection Standard (40 CFR Part 170).

When this product is used on an agricultural establishment (farm, forest, nursery, or greenhouse) for the commercial or research production of agricultural plants, users must comply with the instructions in this supplemental labeling. Users who must comply with these instructions include owners/operators of the agricultural establishment and owners/operators of commercial businesses that are hired to apply pesticides on the agricultural establishment or to perform crop-advising tasks on such establishments. Failure to comply with the requirements on this supplemental labeling and with the Worker Protection Standard (40 CFR part 170) is a violation of Federal law, since it is illegal to use a pesticide product in a manner inconsistent with its labeling.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements in this labeling about personal protective equipment, restricted-entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Entry-Restrictions: Do not enter or allow worker entry during the restricted-entry interval (REI). The restricted-entry interval for this product is:

- the specific number of hours or days (if any) listed elsewhere on the product labeling as the reentry interval or entry restriction for the crop or site, if 12 hours or more;
- 12 hours, if no specific number of hours or days is listed elsewhere on the product labeling as the reentry interval or entry restriction for the crop or site;

The restricted-entry interval for this product must be at least 12 hours.

Notification Instructions: Follow the rules in the WPS for notifying workers of the application. Exception: If the instructions about notification (if any) listed elsewhere on the product labeling require posting of treated areas (rather than offering a choice), you must notify workers of the application by warning them orally AND by posting signs at entrances to treated areas, following the rules in the WPS.

Personal Protective Equipment (PPE) Requirements:

- Handler PPE: Pesticide handlers must wear the PPE listed elsewhere in the product labeling for applicators. If specific PPE is required elsewhere on the product label for specific handling tasks (such as mixing or loading), it must be worn while performing such tasks. In any case, any handler using this product must wear no less than: long-sleeved shirt, long pants, shoes, socks, and chemical-resistant or waterproof gloves.
- Early Entry PPE: PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is the same PPE as required elsewhere on this product label for applicators, except that any respirator requirement is waived. In any case, the minimum PPE required for any early entry worker exposed to this product is no less than: coveralls, shoes, socks, and chemical-resistant or waterproof gloves.

Conflicting Instructions: If the requirements of the WPS conflict with instructions listed elsewhere on this product label, users must obey the more protective requirements.

FORM 1014 REV. 4/91

STATE OF OREGON
DEPARTMENT OF AGRICULTURE

LICENSE

POST THIS LICENSE IN A CONSPICUOUS PLACE

LICENSEE

KOPPERS INDUSTRIES INC
AMOS S KAMERER
7540 NW ST HELENS RD
PORTLAND, OR 97210

FIRM NO.

077467 077467

BUSINESS LOCATION

7540 NW ST HELENS RD
PORTLAND, OR 97210

LICENSE TYPE	LICENSE NUMBER	DATE ISSUED	DATE EXPIRES	
65	81780	12/23/93	12/31/94	10.00

Pesticide Dealer License

Koppers019504

OREGON DEPT OF AGRICULTURE
635 Capitol St. NE
Salem, OR 97310-0110
(503) 986-4635

1995 LICENSE RENEWAL APPLICATION - Pesticide Dealer

Mailing Address:

KOPPERS INDUSTRIES INC
AMOS S KAMERER
7540 NW ST HELENS RD
PORTLAND, OR 97210

CURRENT LICENSE EXPIRES: 12/31/94

Mail/Firm Number: 77467- 77467
Phone number: 503-286-3681
FAX number: 503-285-2831

Business Location Address:
KOPPERS INDUSTRIES INC
AMOS S KAMERER
7540 NW ST HELENS RD
PORTLAND, OR 97210

Contact person: AMOS S KAMERER
Phone number: 503-286-3681
FAX number: 503-285-2831

Lic Code
081780-65

Please complete this form and make corrections where necessary.

****

LICENSE FEE - Pesticide Dealer

TOTAL FEE OWED: $ 10.00

LICENSE REQUIRED ONLY FOR THOSE WHO SELL, OFFER FOR SALE, OR DISTRIBUTE RESTRICTED USE PESTICIDES. LICENSE IS SPECIFIC TO THIS LOCATION AND IS NOT VALID AT ANY OTHER LOCATIONS.

( ) Check here if license is no longer required.

****

Signature _____ Title Plant Manager Date 11/9/94

Print name Amos S. Kamerer

Make remittance payable to Oregon Department of Agriculture
YOU MUST RETURN THIS APPLICATION TO RENEW OR DELETE YOUR LICENSE.

paid 11/15/94
check # 228256
$10

Oregon

DEPARTMENT OF AGRICULTURE

December, 1993

To: Pesticide Consultants and Pesticide Dealers

From: James L. Sandeno, Registration/Certification Supervisor

Subject: **PURCHASE OF PESTICIDE PRODUCTS BY A LICENSED PESTICIDE CONSULTANT**

The department has received numerous inquires regarding under what conditions can a licensed pesticide consultant purchase "Restricted Use" pesticides. The following circumstances must be considered in determining if a person with a consultant license can purchase and use "Restricted Use" pesticides:

1. Oregon Revised Statutes - Chapter 634 (ORS 634) defines a "Pesticide Consultant" as a person, including governmental employees, who offers or supplies technical advice, supervision, aid or recommendations to the user of restricted use pesticides [ORS 634.006(10)]. The definition does not mention purchase or use of "Restricted Use" pesticides.

2. Oregon Administrative Rules - Chapter 603, Division 57 (OAR 603) states that a person who qualifies for a consultant license may, without further examination or additional fee, be licensed as a pesticide applicator with the category "Demonstration and Research" [ORS 603-57-145(2)]. The department will grant a "Demonstration and Research" endorsement to a person with a consultant license upon request. A person so licensed (consultant license with "Demonstration and Research" endorsement) is authorized to purchase "Restricted Use" pesticides for demonstration and research purposes. ORS 603-57-110(3) says, in part, that the "Demonstration and Research" endorsement allows a person to use or supervise the use of pesticides in field research or educational demonstrations.

3. ORS 603-57-145(6) states that a person with a valid pesticide consultant license shall be considered as a private pesticide applicator for the purpose of purchasing restricted use pesticides for use on his/her own lands or crops. The department requires that a person with a consultant license, who desires to use "Restricted Use" pesticides on his/her own lands apply for a private pesticide applicator license. The private pesticide applicator license rather than the consultant license must be used to purchase "Restricted Use" pesticides for use on his/her lands. The private pesticide applicator license can be obtained by a licensed consultant, without further examination, by submitting an application and proper license fee to the department.

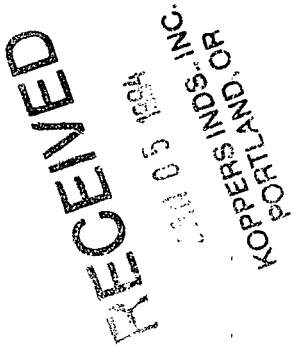
As outlined above the only time a person with a valid consultant license can purchase "Restricted Use" pesticides is when the consultant license has the "Demonstration and Research" endorsement. The only time a

(OVER)

Barbara Roberts
Governor

635 Capitol Street NE
Salem, OR 97310-0110

pesticide dealer can sell "Restricted Use" pesticides to a person with a valid consultant license is when the consultant license has the "Demonstration and Research" endorsement. The consultant license, with or without the "Demonstration and Research" endorsement, cannot be used to purchase "Restricted Use" pesticide products for distribution to another person. Only a person with a valid pesticide dealer license can sell or distribute "Restricted Use" pesticide products to properly licensed end users.



*** NOTICE OF VIOLATION ***

Oregon

CERTIFIED MAIL

June 25, 1993

RECEIVED
JUL - 7 1993
KOPPERS INDS., INC.
PORTLAND, OR.

DEPARTMENT OF AGRICULTURE

Plant Division
(503) 378-3776

Koppers Co. Inc.
ATTN: John Oxford
7540 N. W. St. Helens
PORTLAND, OR 97229

VIOLATION OF ORS 634

RE: OSDA Investigation #933374

In June 1993, a representative of the Oregon Department of Agriculture conducted an inspection of pesticide dealer records maintained by Koppers Co. Inc.

Based on this inspection, it is the determination of the Oregon Department of Agriculture that Koppers Co. Inc. was in violation of Oregon Revised Statutes - Chapter 634 as follows:

1. VIOLATION OF ORS 634.372(5), refuse or neglect to prepare and maintain records required to be kept by the provisions of this chapter [1 count]. Specifically:

1. Identity of pesticide product(s) sold (EPA Reg No. or specific product name, including identity of the manufacturer).

At the time this pesticide application was conducted, Koppers Co. Inc. was licensed as a pesticide dealer. Based on this license, you were expected to know, understand and comply with Oregon Revised Statutes-Chapter 634 and Oregon Administrative Rule (OAR) 603-57.

This letter is intended as a formal notice of violation advising you of noncompliance with the Oregon Revised Statutes-Chapter 634 and Oregon Administrative Rule (OAR) 603-57. No further action by the Oregon Department of Agriculture is presently anticipated. You are directed to take measures deemed necessary to insure your restricted use pesticide distribution records comply with the requirements of OAR 603-57-140. Any future violations of ORS 634 or OAR 603-57 may subject you to civil penalties, license suspension or revocation.

Dale L Mitchell

DALE L. MITCHELL
PESTICIDE INVESTIGATION SUPERVISOR
PLANT DIVISION
OREGON DEPT. OF AGRICULTURE

Barbara Roberts
Governor

635 Capitol Street NE
Salem, OR 97310-0110

Oregon DEPARTMENT OF AGRICULTURE
635 Capitol Street NE
Salem, Oregon 97310-0110

CERTIFIED
P 377 721 798
MAIL

RETURN RECEIPT REQUESTED

KOPPERS CO., INC.
ATTN: JOHN OXFORD
7540 NW ST. HELENS
PORTLAND, OR 97229

#933374

Koppers019509

OREGON DEPARTMENT OF AGRICULTURE
Plant Division
635 Capital St. NE
Salem, Oregon 97310-0110
(503) 378-3776

Log No. _____
Related Cases: _____
_____
_____

INSPECTION OF OREGON PESTICIDE DEALER RECORDS

NAME: Koppers Co
ADDRESS: 17540 NW St Helens Rd Portland
PHONE: 286-3681

LICENSE NO.: 520 -65
LICENSE CATEGORIES: /
CURRENT: X YES _____ NO

Each Oregon Pesticide Dealer is required to prepare and maintain records of "restricted use/highly toxic" pesticide product sales. The information to be included in these records is specified in OREGON ADMINISTRATIVE RULES-CHAPTER 603, DIVISION 57 (OAR 603-57-140). Failure to prepare and maintain records is a violation of OREGON REVISED STATUTES-CHAPTER (ORS 634.372(5)).

A sample of the "restricted use/highly toxic" pesticide product sales records of the specified Oregon Pesticide Dealer have been reviewed. These records have met the requirements of OAR 603-57-140, as detailed below:

Yes	No	
✓		Name of purchaser (individual's name if a Private Pesticide Applicator).
✓		Address of purchaser.
✓		Current valid license (certificate) number of purchaser.
✓		Date of sale.
	✓	Identity of pesticide product(s) sold (EPA Reg. No. or specific product name, including identity of the manufacturer.
✓		Quantity (gallons, pounds, etc.) product sold.
✓		Records kept for three years.

COMMENTS: _____

6/24/83
(Date)

John C. Hartford
(Dealer Representative)

David E. Fultz
OSDA - PD Investigator

For Department Use Only

Expenditures

Time (hrs.) = _____ Copies (#) = _____
Mileage = _____ Photos (#) = _____
Per Diem = _____ Other = _____

PL#22

RECEIVED
DEC 30 1992
KOPPERS INDS. INC.
PORTLAND, OR

Oregon

DEPARTMENT OF AGRICULTURE

December 29, 1992

To: Oregon Pesticide Dealers

From: Christopher K. Kirby, Assistant Administrator
Plant Division Chris Kirby

Subject: Informational Survey

Pesticide dealers have a significant role in assuring the lawful use of pesticides in Oregon. This role is identified and emphasized by provisions of the Oregon Pesticide Control Act (Oregon Revised Statutes Chapter 634). Among these provisions are requirements that outlets providing "restricted use" pesticide products to users be licensed as dealers, sell only registered products, make distributions only to appropriately licensed persons, record and maintain sales information, and sell products only for labeled usages. As the agency which administers these provisions, the Oregon Department of Agriculture readily acknowledges the importance of dealers in obtaining compliance with ORS 634.

The department is involved in evaluating the ways its limited resources can best be used to administer ORS 634, and thereby achieve the intents of this act. Owing to the vital role of pesticide dealers, including the input of pesticide dealers in these evaluations is more than just a good idea, it is necessary. The department has therefore developed a brief questionnaire as a means of gathering some general input from all pesticide dealers. A separate questionnaire is being sent to each retail location presently licensed as a dealer. The responses to this questionnaire are expected to serve as the basis for gathering more detailed input on specific issues of mutual concern to dealers and the department.

Attached is a copy of the referenced questionnaire. It has been developed in cooperation with the Oregon Agricultural Chemicals and Fertilizers Association. Contained on one page, front and back, and composed mainly of "check-off" type responses, completion of the questionnaire should take only a few minutes. A postage paid, addressed envelope is attached for use in returning completed questionnaires to the department. The identification of the person and outlet completing the questionnaire is optional.

Please take the time to complete this questionnaire for your specific location. The intent of this questionnaire is not to target specific outlets for inspections. Rather, the intent is to gather information which can help the department in interacting with pesticide dealers and others to obtain compliance with the Oregon Pesticide Control Act.

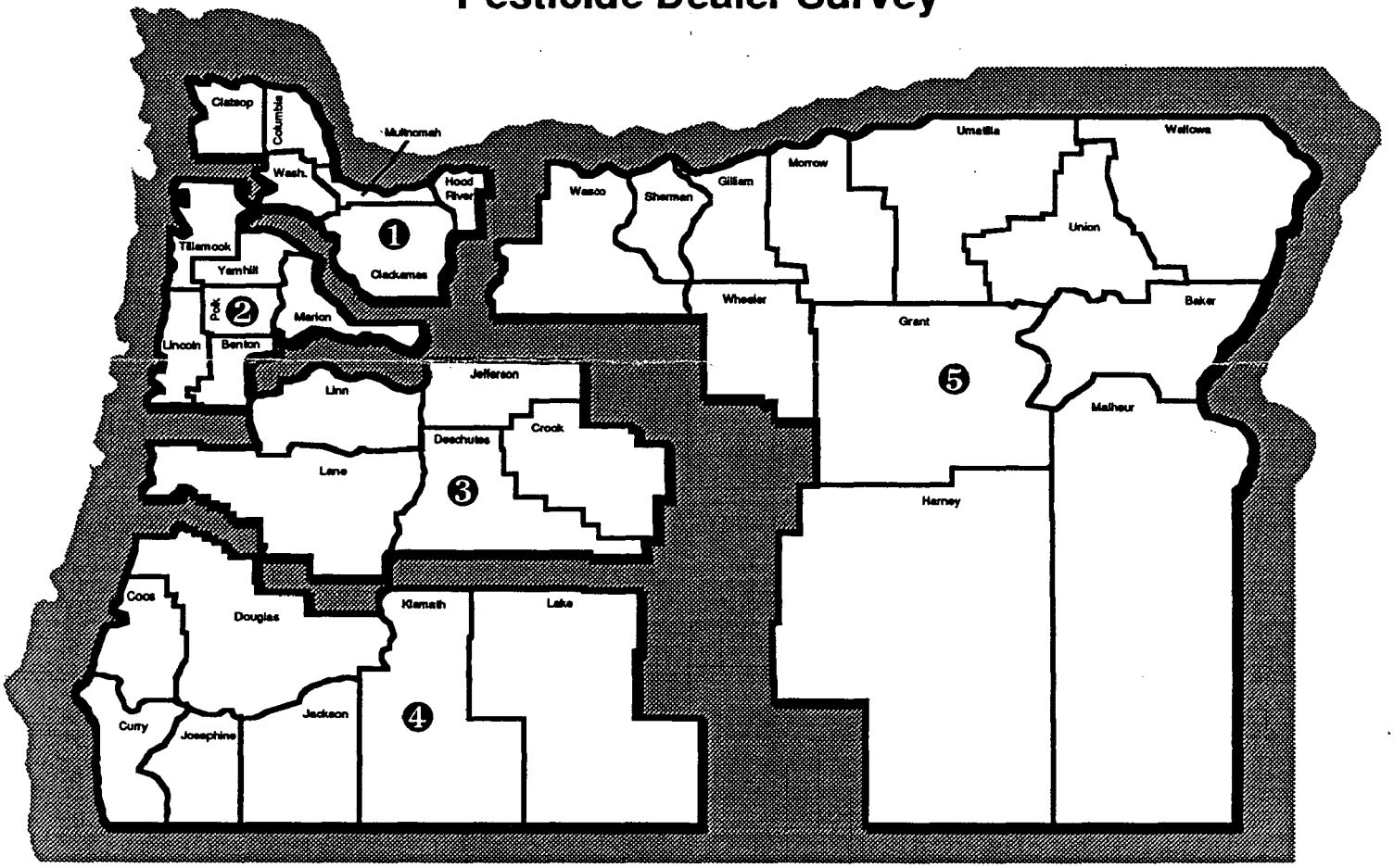
PL/COR/L9
Attachments

Barbara Roberts
Governor

635 Capitol Street NE
Salem, OR 97310-0110

Oregon Department of Agriculture
Plant Division

Pesticide Dealer Survey



Oregon Counties by Area

①	②	③	④	⑤
Clackamas	Benton	Crook	Coos	Baker
Clatsop	Lincoln	Deschutes	Curry	Gilliam
Columbia	Marion	Jefferson	Douglas	Grant
Hood River	Polk	Lane	Jackson	Harney
Multnomah	Tillamook	Linn	Josephine	Malheur
Washgton	Yamhill		Klamath	Morrow
			Lake	Sherman
				Umatilla
				Union
				Wallowa
				Wasco
				Wheeler

Koppers019512

RECEIVED

Oregon Department of Agriculture
Plant Division
Pesticide Dealer Survey

1. Where is your specific dealer outlet (location)? (Refer to map on the back of the enclosed cover letter.)

X Area #1	____ Area #4
____ Area #2	____ Area #5
____ Area #3	

2. When was the most recent time that a Pesticide Investigator from the department visited your outlet?

____ within the last six months	____ greater than two years
____ six to 12 months	____ never
X one to two years	

3. During the most recent visit to your outlet by a department Pesticide Investigator, or other communication from the department regarding that visit, were any violations of the Oregon Pesticide Control Act identified to you?

Yes	No	
____	____	Inappropriate records of "restricted use" pesticide product sales
____	____	Distribution of "restricted use" pesticide products to uncertified individuals
____	____	Offering for sale a pesticide product not registered with the department
____	____	Distributing a pesticide product for a use inconsistent with its labeling
X	____	Other (please specify) Mis Branded Label - No EPA est #.

4. a. What frequency of scheduled visits to your outlet by a department Pesticide Investigator would be most useful to you?

____ Once every six months	____ Once every two years
X Once a year	____ Once every three years
____ Other (please specify) _____	
____ Such visits would not be useful	

b. Why did you respond this way? This facility is in compliance with all applicable government regulations regarding the use, handling and storage of Creosote etc. Inspections more frequent than annually would be an exercise only

5. Some of the pesticide products sold by your outlet may be purchased for use according to a Special Local Need (FIFRA Section 24c) registration or a Specific/Emergency Exemption (FIFRA Section 18) registration.

a. What is your source of information on special registrations?

"24c"	"18"	
____	____	Representatives of product manufacturers
____	____	Representatives of product distributors
____	____	Oregon State University Extension Service personnel
____	____	Commodity grower groups
____	____	Fieldmen for commodity buyers or processors
X	X	Other (please specify) in house regulatory manager
____	____	No one

b. From whom do you receive copies of special labeling?

"24c"	"18"	
____	____	Representatives of product manufacturers
____	____	Representatives of product distributors
____	____	Oregon State University Extension Service personnel
____	____	Commodity grower groups
____	____	Fieldmen for commodity buyers or processors
X	X	Other (please specify) in house regulatory manager
____	____	No one

6. How many Pesticide Consultants, Commercial Pesticide Applicators or Commercial Pesticide Trainees are employed by your specific dealer outlet?

	Number of Employes
Pesticide Consultants	0
Commercial Pesticide Applicators	0
Commercial Pesticide Trainees	0

7. If persons seeking to become certified as applicators or consultants request information from your outlet, what type of information is requested and provided?

Requested	Provided	
		Identification of study materials
		Sources of study materials
		Training session information
		Examination locations
	X	Persons to contact for information
		Other (please specify) _____
X		Persons do not seek certification information from our outlet

8. What types and numbers of training sessions does your outlet conduct or sponsor for pesticide users?

	Number of trainings per year
Informal trainings for individual users	
Initial trainings for Private Pesticide Applicators	
Recertification trainings for Private Pesticide Applicators	
Initial trainings for Pesticide Consultants, Commercial Pesticide Applicators and Public Pesticide Applicators	
Recertification trainings for Pesticide Consultants, Commercial Pesticide Applicators and Public Pesticide Applicators	
Other (please specify) Inhouse training is limited to RCRA, OSHA and FIFRA on an annual Basis and when hired	X

9. What could the department do to assist your outlet in complying with the Oregon Pesticide Control Act?
   1. This facility would appreciate OSDA ~~Providing our customers~~
   2. ~~with current pesticide literature~~
   3. being placed on a mailing list to receive all applicable OSDA pesticide regulations

10. What could the department do to assist your customers in complying with the Oregon Pesticide Control Act?
   1. This
   2. _____
   3. _____

11. Other Comments: _____

None

Optional information (Complete only if you wish to be identified):

Name of person completing survey _____
Title of person completing survey _____
Name of pesticide dealer (outlet) _____
Address of pesticide dealer _____

PL*dlr.survey

KOPPERS
INDUSTRIES

INTEROFFICE CORRESPONDENCE

To:	J. A. Oxford	From:	John E. Marcinowski
Location:	NORTHWEST TERMINAL	Location:	K-1801
Subject:	PESTICIDE DEALER SURVEY	Date:	Jan. 13, 1993

I recommend the following answers to the Oregon Dept. of Agriculture Plant Division Pesticide Dealer Survey:

1. I am unable to respond to this question since I did not receive a copy of the referenced map.
2. According to my records you had an inspection on March 14, 1991.
3. The violation as a result of the March inspection was a misbranded label violation. Specifically, the absence of an EPA Establishment No.

4a. I will leave the frequency up to you but annually should be acceptable.

4b. Koppers (this facility) is in compliance with all applicable Federal, state and local government regulations regarding the use, handling and storage of creosote (pesticides). Inspections more frequent than annually would be an exercise, only.

5a. "Other" inhouse regulatory manager for "24c" & "18."

5b. "Other" inhouse regulatory manager for "24c" & "18."

6. Please insert the number of employees who hold one of the listed classifications

7. If customer seek certification information from you I would expect you to provide them with information as to the "Persons to contact..."
8. "Other" inhouse employees are sent to appropriate agency for FIFRA training. Inhouse training is limited to RCRA, OSHA and FIFRA training on an annual basis or when hired.
9. Koppers (this facility) would appreciate being placed on a mailing list to receive all applicable OSDA pesticide regulations.

10a. Koppers (this facility) would appreciate OSDA providing our customers with current applicable OSDA pesticide literature.

10b. Conduct customer facility audits.

11. "Please feel free to add your own comments"

Please do not hesitate to call me if you have any questions regarding my suggested responses or feel uncomfortable with any of the suggested responses.

John E. Marcinowski

c.c.
J. R. Batchelder K-1701
L. F. Flaherty K-1750

Oregon Department of Agriculture
Plant Division
Pesticide Dealer Survey

1. Where is your specific dealer outlet (location)? (Refer to map on the back of the enclosed cover letter.)

X	Area #1	____	Area #4
____	Area #2	____	Area #5
____	Area #3		

2. When was the most recent time that a Pesticide Investigator from the department visited your outlet?

____	within the last six months	____	greater than two years
____	six to 12 months	____	never
X	one to two years		

3. During the most recent visit to your outlet by a department Pesticide Investigator, or other communication from the department regarding that visit, were any violations of the Oregon Pesticide Control Act identified to you?

Yes	No	
____	____	Inappropriate records of "restricted use" pesticide product sales
____	____	Distribution of "restricted use" pesticide products to uncertified individuals
____	____	Offering for sale a pesticide product not registered with the department
____	____	Distributing a pesticide product for a use inconsistent with its labeling
X	____	Other (please specify) MISBRANDED LABEL-NO EPA ESTABLISHMENT #

4. a. What frequency of scheduled visits to your outlet by a department Pesticide Investigator would be most useful to you?

____	Once every six months	____	Once every two years
X	Once a year	____	Once every three years
____	Other (please specify)	____	
____	Such visits would not be useful		

b. Why did you respond this way? THIS FACILITY IS IN COMPLIANCE WITH ALL APPLICABLE GOVERNAMENT REGULATIONS REGARDING THE USE, HANDLING AND STORAGE OF CREOSOTE. INSPECTIC MORE FREQUENT THAN ANNUALLY WOULD BE AN EXERCISE ONLY..

5. Some of the pesticide products sold by your outlet may be purchased for use according to a Special Local Need (FIFRA Section 24c) registration or a Specific/Emergency Exemption (FIFRA Section 18) registration.

a. What is your source of information on special registrations?

"24c"	"18"	
____	____	Representatives of product manufacturers
____	____	Representatives of product distributors
____	____	Oregon State University Extension Service personnel
____	____	Commodity grower groups
____	____	Fieldmen for commodity buyers or processors
X	X	Other (please specify) INHOUSE REGULATORY MANAGER
____	____	No one

b. From whom do you receive copies of special labeling?

"24c"	"18"	
____	____	Representatives of product manufacturers
____	____	Representatives of product distributors
____	____	Oregon State University Extension Service personnel
____	____	Commodity grower groups
____	____	Fieldmen for commodity buyers or processors
X	X	Other (please specify) INHOUSE REGULATORY MANAGER
____	____	No one

6. How many Pesticide Consultants, Commercial Pesticide Applicators or Commercial Pesticide Trainees are employed by your specific dealer outlet?

	Number of Employes
Pesticide Consultants	0
Commercial Pesticide Applicators	0
Commercial Pesticide Trainees	0

7. If persons seeking to become certified as applicators or consultants request information from your outlet, what type of information is requested and provided?

Requested	Provided	
		Identification of study materials
		Sources of study materials
		Training session information
		Examination locations
	X	Persons to contact for information
		Other (please specify) _____
X		Persons do not seek certification information from our outlet

8. What types and numbers of training sessions does your outlet conduct or sponsor for pesticide users?

	Number of trainings per year
Informal trainings for individual users	
Initial trainings for Private Pesticide Applicators	
Recertification trainings for Private Pesticide Applicators	
Initial trainings for Pesticide Consultants, Commercial Pesticide Applicators and Public Pesticide Applicators	
Recertification trainings for Pesticide Consultants, Commercial Pesticide Applicators and Public Pesticide Applicators	
Other (please specify) INHOUSE TRAINING IS LIMITED TO RCRA, OSHA	X
AND FIFRA ON AN ANNUAL BASIS AND WHEN HIRED	

9. What could the department do to assist your outlet in complying with the Oregon Pesticide Control Act?
   1. THIS FACILITY WOULD APPRECIATE BEING PLACED ON A MAILING LIST TO RECEIVE
   2. ALL APPLICABLE OSDA PESTICIDE REGULATIONS.
   3. _____

10. What could the department do to assist your customers in complying with the Oregon Pesticide Control Act?
   1. THIS FACILITY WOULD APPRECIATE OSDA PROVIDING OUR CUSTOMERS WITH CURRENT OSDA
   2. PESTICIDE LITERATURE
   3. CONDUCT CUSTOMERS FACILITY AUDITS.

11. Other Comments: _____

Optional information (Complete only if you wish to be identified):

Name of person completing survey JOHN A OXFORD
Title of person completing survey PLANT MANAGER
Name of pesticide dealer (outlet) KOPPERS INDUSTRIES INC.
Address of pesticide dealer 7540 NW ST HELENS RD PORTLAND OR 97210

PL*dlr.survey

OREGON DEPT OF AGRICULTURE
635 Capitol St. NE
Salem, OR 97310-0110
(503) 378-3776

RENEWAL APPLICATION - Pesticide Dealer

Firm Address:

KOPPERS COMPANY INC
7540 NW ST HELENS RD
PORTLAND, OR 97210

CURRENT LICENSE EXPIRES: 12/31/92

Firm Number: 77467-000
Phone number: 503-286-3681
FAX number: 503-285-2831

Location Address:
KOPPERS COMPANY INC
JOHN A OXFORD
7540 NW ST HELENS RD
PORTLAND, OR 97210

Contact person: JOHN A OXFORD
Phone number: 503-286-3681
FAX number:

Lic Code
000520-65

Please complete this form and make corrections where necessary.

****

LICENSE FEE - Pesticide Dealer

TOTAL FEE OWED: $ 10.00

****

Signature John a Oxford Title PLANT MANAGER Date 11-24-92

Print signatory name JOHN A. OXFORD

Make remittance payable to Oregon Department of Agriculture
YOU MUST RETURN THIS APPLICATION TO RENEW OR DELETE YOUR LICENSE.

RECEIVED
NOV 19 1992
KOPPERS IND'S. INC.
PORTLAND, OR

Approvals

Koppers Industries, Inc.
Pittsburgh, PA 15219

62-4
311

Location No. 483/9270 Date 11/24/92 No. 218717

--KOPPERS-- INDUSTRIES, INC. 10 and 00 cts

$ 10.00
Not valid over $3500.00

Pay
to the order of

OREGON DEPT OF AGRICULTURE

635 CAPITOL N.E.
SALEM OR 97310-0110

Mary J. Neal
John A. Offord

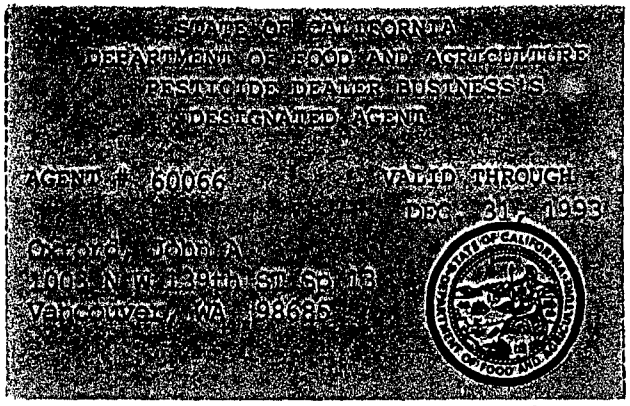
Payable through Mellon Bank (DE) N.A., Wilmington, DE 19899
Mellon Bank (East) N.A., Philadelphia, PA 19102

KI 179 3/90 10M

⑈218717⑈ ⑆031100047⑆ 2⑈924 918⑈

General Ledger	Detail	Sub Detail	Location or Contract	Dept. or Orig. Loc.	Tax Codes	Emp. No.	Purchase Order No. or Rec. Id.	Br.	P.O. No.	P.O. Add.	P.O. Add or Resource	Quantity			Unit Code	Amount Distributed Dollars	Cents
305	973	X	9270	910	0362											10	00

Vendor No.	Description
9466-260-13	CK # 218717 TO STATE OF OREGON TO RENEW PESTICIDE DEALER LICENSE



STATE OF CALIFORNIA
DEPARTMENT OF FOOD AND AGRICULTURE
PESTICIDE DEALER BUSINESS'S
DESIGNATED AGENT

AGENT # 60066

VALID THROUGH
DEC. 31, 1993

Oxford, John A
1003 N W 139th St Sp 13
Vancouver, WA 98685

Koppers019520

KOPPERS
INDUSTRIES

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

Telephone: (503) 286-3681
FAX: (503) 285-2831

DECEMBER 12, 1991

STATE OF CALIFORNIA
DEPARTMENT OF FOOD & AGRICULTURE
PESTICIDE ENFORCEMENT BRANCH
LICENSING & CERTIFICATION PROGRAM
1713 J STREET, SUITE 301
SACRAMENTO CA 95814

DEAR SIR:

WE ARE RETURNING THE ENCLOSED LICENSE #60066 FOR JOHN A OXFORD, FOR CORRECTION. OUR CHECK WAS SENT ON NOVEMBER 19, 1991 TO RENEW MR. OXFORD'S LICENSE FOR THE YEAR 1992, BUT YOU WILL NOTICE THE DATE ON THIS NEW LICENSE IS VALID THROUGH 12/31/91 INSTEAD OF 92.

PLEASE CORRECT AND RETURN AS SOON AS POSSIBLE.

THANK YOU,

Mary J Neal

MARY J NEAL
OFFICE MANAGER

Approvals

Koppers Industries, Inc.
Pittsburgh, PA 15219

62-4
311

Location No. 483/9270 Date 11-19-91 No. 213887

Pay
to the order of

$ 30.00
Not valid over $3500.00

CASHIER/DEPARTMENT OF FOOD
& AGRICULTURE
P.O. BOX 942872
SACRAMENTO CA 94271-2872

Payable through Mellon Bank (DE) N.A., Wilmington, DE 19899
Mellon Bank (East) N.A., Philadelphia, PA 19102

KI 179 3/90 10M

⑈213887⑈ ⑆031100047⑆ 2⑈924 918⑈

General Ledger	Detail	Sub Detail	Location or Contract	Dept or Orig. Loc.	Tax Codes	Emp. No.	Purchase Order No. Rec. Id.	Br.	P.O. No.	P.O. Add	P.O. Add or Resource	Quantity	Unit Code	Amount Distributed Dollars	Cents
305	973	X	9270	910	0036									30.	00

Vendor No.

9668-920-32

Description

CK # 213887 TO STATE OF CA FOR RENEWAL OF PESTICIDE DEALERS LICENSE

Koppers019522

STATE OF CALIFORNIA

PESTICIDE DEALER'S DESIGNATED AGENT LICENSE RENEWAL INFORMATION REQUIREMENT

PR-ENF-138 (EST. 9/91)

DEPARTMENT OF PESTICIDE REGULATION
PESTICIDE ENFORCEMENT BRANCH
LICENSING AND CERTIFICATION PROGRAM
1713 J STREET, SUITE 301
SACRAMENTO, CALIFORNIA 95814
(916) 322-4647

A. Employment Status Information

NAME	AGENT LICENSE NUMBER
JOHN A OXFORD	# 60066
BUSINESS/EMPLOYER NAME	**HOME PHONE NUMBER**
KOPPERS INDUSTRIES INC	[redacted]
BUSINESS/EMPLOYER ADDRESS	**BUSINESS PHONE NUMBER**
7540 NW ST HELENS RD	(503) 286-3681

CITY	STATE	ZIP CODE
PORTLAND	OREGON	97210

B. Occupational Information

1. Please indicate who you are employed with by checking the appropriate box below.

☐ Currently not a Designated Agent Licensee for a Pesticide Dealer Business.

☒ Currently a Designated Agent Licensee for a Pesticide Dealer Business.

STATE OF CALIFORNIA
DEPARTMENT OF PESTICIDE REGULATION
PESTICIDE ENFORCEMENT BRANCH
LICENSING AND CERTIFICATION PROGRAM
1713 J STREET, SUITE 301
SACRAMENTO, CA 95814
TELEPHONE (916) 322-4647
PR-ENF-185(Est. 9-91)

10/03/91

RENEWAL APPLICATION FOR:
PESTICIDE DEALER'S DESIGNATED AGENT LICENSE

IN ORDER TO RENEW YOUR DESIGNATED AGENT LICENSE FOR TWO YEARS:

1. Check your name and/or address below.
   If you have an address change or correction, please print the change on the front of the renewal form. If making a name change, please call phone number above for further instructions.
2. Sign and date the renewal form. Include your Social Security Number.
   The Department needs the Social Security Number as an alternate means of applicant identification, as many names are similar. This is not public information and will not appear on any publication produced or distributed by the Department.
3. Please complete the information required on the back of the renewal application.
4. Enclose your check or money order for $30.00, payable to Cashier, Dept. of Pesticide Regulation.
   If your renewal is not postmarked on or before December 31, of the expiration year, you must include a $10.00 penalty fee. A person who does not renew his/her license/certificate within 12 months after expiration will be required to file as a new applicant and re-examine again.
5. Mail in the envelope provided
   to Cashier, Department of Food & Agriculture, P.O. Box 942972, Sacramento, CA 94271-2872.

NOTE: IN ORDER TO ASSURE RECEIPT OF YOUR LICENSE PRIOR TO JANUARY 1, PLEASE SUBMIT THE REQUIRED DOCUMENTS FOR RENEWAL WITH THE PROPER FEE PRIOR TO DECEMBER 1.

DESIGNATED AGENT ID: 00000 60066

EXPIRATION YEAR: 91

OXFORD,JOHN A
6208 NE 17TH AVE #27
VANCOUVER WA 98665

CHANGE OF ADDRESS
1003 N.W. 139TH ST SPACE 13
VANCOUVER WA 98685

TOTAL FEE REQUIRED: $ 30.00

I DECLARE UNDER THE PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT.

SIGNATURE John A Oxford DATE 11-19-91

SOCIAL SECURITY NUMBER: [redacted]

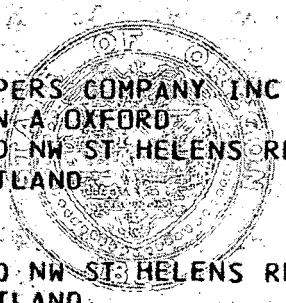
Koppers019524

ALIR 2010K

OREGON STATE DEPARTMENT OF AGRICULTURE

THIS LICENSE OR REGISTRATION IS SUBJECT TO THE PROVISIONS OF ORS 634

License type
PESTICIDE DEALER



licensee: KOPPERS COMPANY INC
JOHN A OXFORD
7540 NW ST HELENS RD
PORTLAND OR 97210

firm no. 00077467

business location: 7540 NW ST HELENS RD
PORTLAND

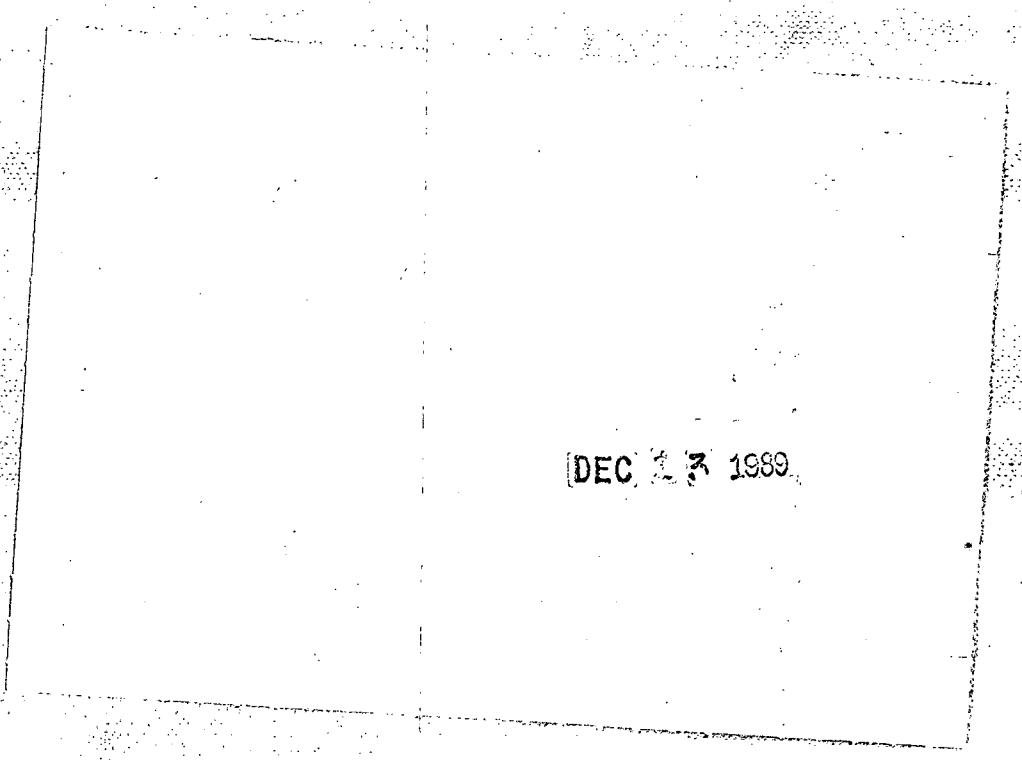
license no. 000520

Date issued 12/11/89
date expires 12/31/90

Fee paid $ 10.00

FORM 1014

POST THIS LICENSE IN A CONSPICUOUS PLACE


DEC 1 3 1989

ALIR 2010K

OREGON STATE DEPARTMENT OF AGRICULTURE

THIS LICENSE OR REGISTRATION IS SUBJECT TO THE PROVISIONS OF ORS 634

License type

COMMERCIAL PESTICIDE APPLICATOR
I-W.

licensee

OXFORD, JOHN A
4708 NE 139TH AVE
VANCOUVER WA 98662

00077415
firm no.

business location

license no.
004583

Date issued 02/10/89
date expires 12/31/89

Fee paid
$ 15.00

DATE CERTIFIED : 01/01/86 CREDITS RECORDED : 00

FORM 1014

POST THIS LICENSE IN A CONSPICUOUS PLACE

ALIR 2010K

OREGON STATE DEPARTMENT OF AGRICULTURE

THIS LICENSE OR REGISTRATION IS SUBJECT TO THE PROVISIONS OF ORS 634

License type

PESTICIDE DEALER

licensee

KOPPERS COMPANY INC
JOHN A OXFORD
7540 NW ST HELENS RD
PORTLAND OR 97210

firm no. **00077467**

business location

7540 NW ST HELENS RD
PORTLAND

license no. **000520**

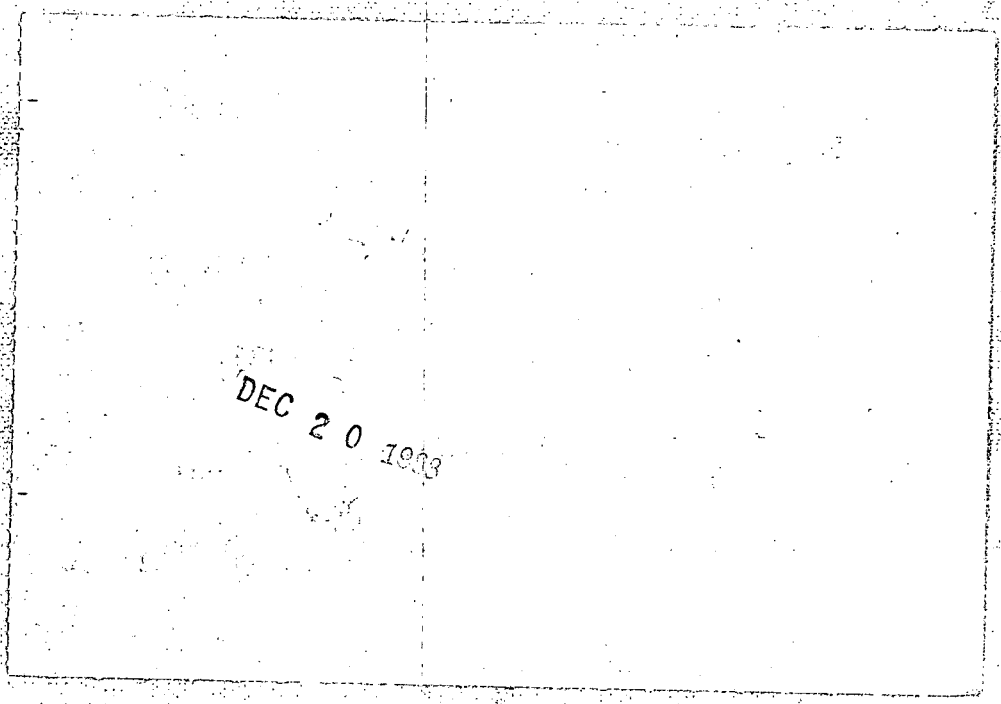
Date issued **12/16/88**

date expires **12/31/89**

Fee paid **$ 10.00**

FORM 1014

POST THIS LICENSE IN A CONSPICUOUS PLACE.


DEC 2 0 1993

1008 N.W 139th St.
Sp 13
Vancouver WA 98685-
(206) 576-0521

Your Pesticide Dealer's Designated Agent card is valid through December 31, of the licensing period indicated on your card.

(Cut along line)

STATE OF CALIFORNIA
DEPARTMENT OF FOOD AND AGRICULTURE
PESTICIDE DEALER BUSINESS'S
DESIGNATED AGENT

AGENT # 60066
JOHN A OXFORD
6208 NE 17th AVE #27
VANCOUVER WA 98665

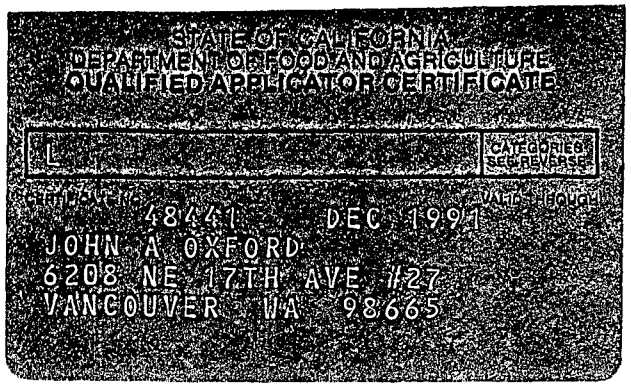
VALID THROUGH
DEC 1991

State of California
Department of Food & Agriculture
Pesticide Enforcement Branch
Licensing & Certification Program
1713 J Street, Suite 301
Sacramento, CA 95814

IMPORTANT!
Read Reverse Side Carefully.

Name or Address Change:
Please immediately obtain a Name or Address Change Form from this office by writing or calling (916) 322-4647, or by contacting your local County Agricultural Commissioner's office.

Koppers019530


STATE OF CALIFORNIA
DEPARTMENT OF FOOD AND AGRICULTURE
QUALIFIED APPLICATOR CERTIFICATE

L

CATEGORIES SEE REVERSE

EMPLOYER

48441 DEC 1991

VALID EQUAL

JOHN A OXFORD
6208 NE 17TH AVE #27
VANCOUVER WA 98665

Koppers019531

WASHINGTON STATE DEPARTMENT OF AGRICULTURE LICENSE

REMOVE LICENSE AT PERFORATIONS
AND CARRY IN A SAFE PLACE

STATE OF WASHINGTON
DEPARTMENT OF AGRICULTURE
COMMERCIAL PEST CONTROL CONSULTANT
NON-TRANSFERABLE

OXFORD, JOHN A.
4708 N.E. 139TH AVE.
VANCOUVER, WA 98662

CERTIFICATION CREDITS:
CATEGORIES: W

02/28/90
EXPIRES

8879
LICENSE NUMBER

IMPORTANT

1. IF YOUR ADDRESS CHANGES, OR YOU CHANGE YOUR PLACE OF EMPLOYMENT, PLEASE NOTIFY THE DEPARTMENT OF AGRICULTURE, 406 GEN. ADMIN. BLDG., OLYMPIA, WA. 98504
2. PLEASE SIGN THE BACK OF YOUR LICENSE CARD.
3. IF THIS IS A RENEWAL, OR REPLACES A TEMPORARY LICENSE, DESTROY OLD CARD AND BEGIN USING THIS CARD IMMEDIATELY.
4. IF THIS CARD IS LOST, PLEASE CONTACT THE WASHINGTON STATE DEPARTMENT OF AGRICULTURE.

Koppers019532

Koppers Industries, Inc.
Pittsburgh, PA 15219

200179 62-4/311

Location No. 483/9270 Date 1/11/89 No.

Pay to the order of -KOPPERS- COMPANY,INC. $20 and 00 cts

$ 20.00
Not valid over $3500.00

WASHINGTON STATE
DEPARTMENT OF AGRICULTURE
CHEMICAL & PLANT DIVISION
406 GENERAL ADMINISTRATION BLDG.
OLYMPIA, WA 98504

Kelly A. Marshall

Payable through Mellon Bank (DE) N.A., Wilmington, DE 19899
Mellon Bank (East) N.A., Philadelphia, PA 19102

KI 179 12/88

⑈200179⑈ ⑆031100047⑆ 2⑈924 918⑈

General Ledger	Detail	Sub Detail	Location or Contract	Dept. or Orig. Loc.	Tax Codes	Emp. No.	Purchase Order No. Rec. Id.	Br.	P.O. No.	P.O. Add.	P.O. Add or Resource	Quantity	Unit Code	Amount Distributed Dollars	Cents
305	973	X	9270	910	0362									20	00

Vendor No.	Description
0051-900-04	PESTICIDE LICENSE RENEWAL FOR 1989 FOR JOHN A. OXFORD

OFFICE USE ONLY	
NEW LIC. NO.	type
OLD LIC. NO.	
ISSUED	
EXPIRES	
CO. LIC. NO.	✓

WASHINGTON STATE

DEPARTMENT OF AGRICULTURE

CHEMICAL AND PLANT DIVISION

406 GENERAL ADMINISTRATION BUILDING
OLYMPIA, WASHINGTON 98504
TELEPHONE (206) 753-5064

CASHIER'S USE ONLY
DATE
REC. NO.
AMOUNT
CASHIER

PESTICIDE LICENSE RENEWAL APPLICATION

COMMERCIAL CONSULTANT (FEE $20.)

PLEASE NOTE-THE FOLLOWING SECTION MUST BE FILLED OUT COMPLETELY-**PRINT CLEARLY**

APPLICANT INFORMATION

LAST NAME	FIRST	MIDDLE	HOME PHONE
OXFORD	JOHN	A	[redacted]

HOME ADDRESS	CITY	STATE	ZIP	COUNTY
[redacted]	[redacted]	[redacted]	[redacted]	Clark

COMPANY NAME	COMPANY PHONE
KOPPERS INDUSTRIES, INC.	(503) 286-3681

COMPANY ADDRESS	CITY	STATE	ZIP	COUNTY
7540 N.W. ST. HELENS RD, PORTLAND, OR. 97210-3663				Multnomah

SIGNATURE OF APPLICANT _____ DATE 1/11/89

FOR DEPARTMENT OF AGRICULTURE USE ONLY

TEST - A B C D E F G H I J K L M N O P Q R S T U V W X Y Z _____

CERTIFICATION DATE	OTHER LICENSES	
EXAM STATE	EXPIRATION DATE	ASSOCIATE BUSINESS NUMBER AND NAME CHECK

OTHER COMMENTS

AGR 4217 (Rev.9/86)

General Ledger	Detail	Sub Detail	Location or Contract	Dept. or Orig. Loc.	Tax Codes	Emp. No.	Purchase Order No. Rec. Id.	Br.	or P.O. No.	P.O. Add.	P.O. Add or Resource	Quantity	Unit Code	Amount Distributed Dollars	Cents
1426	973	X	60	832	0360									20	00

Vendor No.

Description

CHECK #: 657775 DATED: 1-12-87 TO STATE OF WASHINGTON FOR PESTICIDE LICENSE RENEWAL APPLICATION FOR PLANT MANAGER JOHN OXFORD

Koppers019535

OFFICE USE ONLY	
NEW LIC. NO.	type
OLD LIC. NO.	
ISSUED	
EXPIRES	
CO. LIC. NO.	✓

WASHINGTON STATE

DEPARTMENT OF AGRICULTURE

CHEMICAL AND PLANT DIVISION

406 GENERAL ADMINISTRATION BUILDING
OLYMPIA, WASHINGTON 98504
TELEPHONE (206) 753-5064

CASHIER'S USE ONLY
DATE
REC. NO.
AMOUNT
CASHIER

PESTICIDE LICENSE RENEWAL APPLICATION

COMMERCIAL CONSULTANT (FEE $20.)

PLEASE NOTE-THE FOLLOWING SECTION MUST BE FILLED OUT COMPLETELY-**PRINT CLEARLY**

APPLICANT INFORMATION

LAST NAME	FIRST	MIDDLE	HOME PHONE
OXFORD	JOHN	A.	[redacted]
HOME ADDRESS	**CITY**	**STATE** / **ZIP**	**COUNTY**
[redacted]			CLARK
COMPANY NAME			**COMPANY PHONE**
KOPPERS COMPANY INC.			(503) 286-3681
COMPANY ADDRESS	**CITY**	**STATE** / **ZIP**	**COUNTY**
7540 N.W. ST. HELENS ROAD	PORTLAND,	OREGON 97229	MULTNOMAH

SIGNATURE OF APPLICANT _____ DATE 1-12-87

FOR DEPARTMENT OF AGRICULTURE USE ONLY

TEST - A B C D E F G H I J K L M N O P Q R S T U V W X Y Z _____

CERTIFICATION DATE	OTHER LICENSES	
EXAM STATE	EXPIRATION DATE	ASSOCIATE BUSINESS NUMBER AND NAME CHECK

OTHER COMMENTS

AGR 4217 (Rev.9/86)

Your Pesticide Dealer's Designated Agent card is valid through December 31, of the licensing period indicated on your card.

(Cut along line)

STATE OF CALIFORNIA
DEPARTMENT OF FOOD AND AGRICULTURE
PESTICIDE DEALER BUSINESS'S
DESIGNATED AGENT

AGENT # 60066
JOHN A. OXFORD
4708 N. E. 139TH AVENUE
VANCOUVER, WA. 98662

VALID THROUGH
DEC. 31, 1989

State of California
Department of Food & Agriculture
Pesticide Enforcement Branch
Licensing & Certification Program
713 I Street, Suite 301
Sacramento, CA 95814

IMPORTANT
Read Reverse Side Carefully

Name or Address Change:
Please immediately obtain a Name or Address Change Form from this office by writing or calling (916) 322-4647, or by contacting your local County Agricultural Commissioner's office.

Koppers019537

WASHINGTON STATE DEPARTMENT OF AGRICULTURE LICENSE

REMOVE LICENSE AT PERFORATIONS
AND CARRY IN A SAFE PLACE

STATE OF WASHINGTON
DEPARTMENT OF AGRICULTURE
COMMERCIAL PEST CONTROL CONSULTANT
NON-TRANSFERABLE

OXFORD, JOHN A.
4708 N.E. 139TH AVE.
VANCOUVER WA 98662

CATEGORIES: W

022889
EXPIRES

72174
LICENSE NUMBER

IMPORTANT

1. IF YOUR ADDRESS CHANGES, OR YOU CHANGE YOUR PLACE OF EMPLOYMENT, PLEASE NOTIFY THE DEPARTMENT OF AGRICULTURE, 406 GEN. ADMIN. BLDG., OLYMPIA, WA. 98504

2. PLEASE SIGN THE BACK OF YOUR LICENSE CARD.

3. IF THIS IS A RENEWAL, OR REPLACES A TEMPORARY LICENSE, DESTROY OLD CARD AND BEGIN USING THIS CARD IMMEDIATELY.

4. IF THIS CARD IS LOST, PLEASE CONTACT THE WASHINGTON STATE DEPARTMENT OF AGRICULTURE.

Koppers019538

FORM HS

OREGON HAZARDOUS SUBSTANCE FEE

OREGON DEPARTMENT OF REVENUE

Date Due	Year	Account Number
JAN. 1, 1997	HS96	006202

Date Received

State Government	Local Government	For Office Use Only
6529.00	2000.00	

Amount Due: $8,529.00

Amount of Payment

Date Payment Mailed

Tear out coupon before mailing

Make check payable to:
Oregon Department of Revenue

KOPPERS INDUSTRIES INC
7540 NW ST HELENS RD
PORTLAND, OR 97210

H

Mail your payment and coupon to:
Hazardous Substance Fee
Oregon Department of Revenue
PO Box 14110
Salem, OR 97309-0910

000852900 96 82 607 0062022

Keep this portion for your records

Tear out coupon before mailing

For the year 1996 and in accordance with ORS 453.402 your company is assessed a fee for hazardous substances you possessed, used, stored, manufactured or disposed of at your place of business during the 95-96 survey period.

STATE PROGRAM

Account Number: 006202
Substance: COAL TAR PITCH
Max. Amt. Code: 60
Location Site: 7540 NW ST HELENS RD
Hazard Rank: 2

LOCAL PROGRAM

Account Number: 006202
Substance: COAL TAR PITCH
Max. Amt. Code: 60
Location Site: 7540 NW ST HELENS RD
Hazard Rank: 2

PLEASE RETAIN A COPY OF PAYMENT COUPON AND THIS SHEET FOR YOUR RECORDS

2000.00	DEQ Toxic Use Reduction Program
2529.00	DEQ Orphan Site Clean-Up Program
2000.00	SFM Community Right-to-Know
2000.00	Local Government Program PORTLAND
8529.00	TOTAL

Please read on for additional information regarding your fee, the above programs and the appeal process

KI 37G REV 2.2M 6/90

GIL	DET.	S-DET.	LOC.	DEPT.	TAX	EMP #	MOVE # PO #	AMOUNT
305	807		9270	910	0362			8529.—

CIRCLE TERMS ON INVOICE

INV # 6202 DATE 11/21/96

A/P DEPARTMENT USE ONLY

VENDOR NUMBER 9404320992

TERMS CODE 740 DUE DATE: / /

OK TO PAY:

GROSS AMOUNT 8529.—

DISCOUNT $

NET $

IMPORTANT: CIRCLE TERMS ON INVOICE

DIVISION	MONTH	AUDIT NUMBER
483	11	92701018

FEE DETERMINATION

The fee billing process is a joint effort of State Government, local government and the Department of Revenue. Data collected by the Community Right-to-Know Program and Protection Act (ORS 453.307 - 453.414) is used to determine the fee assessed. The fee is based upon the single largest maximum aggregate quantity of hazardous substance reported and the substance's hazard rank. Hazardous substances are ranked as minimally, generally, very hazardous or registration only.

FEE COLLECTION

The Department of Revenue is responsible for the collection of fees. As with any other amount due, the Department will pursue every avenue available for collecting outstanding obligations. In some cases arrangements can be made for payments. Such arrangements are made on case by case basis.

FEE PAYMENTS

Penalty and Interest

A five percent delinquency penalty is added if you pay more than 60 days after the due date. Interest is figured from the 60th day after the due date to the date of your payment. Interest is charged even if you have an extension to pay. It is also charged **even if you have filed an appeal.** It is charged only on the amount actually due.

How to pay the Fee

Tear off the coupon and mail with your check to the Department of Revenue. The due date and mailing address are shown on the coupon. If you have any questions about the due date, how to pay or installment payments, send your questions to:

Hazardous Substance Fee
Oregon Department of Revenue
PO Box 14119
Salem, OR 97309-0910

RECEIVED
NOV 18 1996
KOPPERS INDS., INC.
PORTLAND, OR

FEE INFORMATION

Every effort has been made to ensure that the fees assessed are correct and in accordance with the applicable statutes and rules. They are based on information submitted as part of your Community Right to Know Hazardous Substance Information Survey. Reductions in fees cannot be made unless there is sufficient evidence to support a claim that an error was made.

Certain petroleum products and wastes are exempted from the hazardous substance fee.

Requests or claims for fee reduction or exemptions will be considered only as part of a fee review process. *It is imperative that those wishing a review or examination of their assessed fee, follow the directions for requesting a fee review. Those owing fees may not alter their bills nor send in amounts different from that owing, except as agreed through the review process.*

HOW TO REQUEST A REVIEW OF YOUR FEE

* **The review process does not stop the accumulation of late charges and penalties. Please pay the fee by the due date to avoid late charges & penalties.**

If you believe a billing error was made, you must, within 20 days of the date the bill was mailed, write a letter requesting a review to the Office of State Fire Marshal. Explain why a review is necessary. A representative of the State Fire Marshals Office will either call or write to discuss your issues.

If you request a review, please be sure to include the following:

1. Name of your company and the account number
2. Company address
3. Name of the hazardous substance
4. Amount of fee assessed
5. Your phone number
6. Your basis for a file review

RECEIVED
NOV 18 1996
KOPPERS INDS. INC.
PORTLAND,OR

IF YOU MUST CALL FOR INFORMATION, USE THE SALEM HOT LINE NUMBER (503) 378-6835. REMEMBER, REQUEST FOR REVIEW MUST BE FILED IN WRITING.

Fee reviews are to be sent to:

Department of State Police
Office of State Fire Marshal
Fee Review Section
4760 Portland Road NE
Salem, OR 97305-1760

⇨**REMINDER:** If you believe a billing error was made, you must, ***within 20 days of the date the bill was mailed,*** write a letter requesting a review to the Office of State Fire Marshal. See above for necessary process.

EXPLANATION OF PROGRAMS

The Oregon Hazardous Substance Fee will fund programs designed to minimize the use and dangers of hazardous substances. Below is a brief explanation of each of these programs and their phone numbers for more information.

Toxic Use Reduction Phone: (503) 229-5913

Oregon's landmark Toxics Use Reduction and Hazardous Waste Reduction Act (TURHWR), passed in 1989, sets in policy an environmental management hierarchy that encourages pollution prevention through reductions in the use of toxic chemicals and generation of hazardous wastes. The law requires certain affected facilities to develop reduction plans and report annually on progress made towards their goals to reduce specified chemicals and hazardous wastes.

As the agency responsible for implementing the law, the Oregon Department of Environmental Quality (DEQ) provides technical assistance through on-site visits, workshops and printed material to persons subject to TURHWR planning requirements. DEQ also monitors the progress of reduction efforts in Oregon. The Hazardous Substance Fee is the major funding source for implementing Oregon's Toxics Use and Hazardous Waste Reduction law.

Orphan Site Cleanup Phone: (503) 229-5913

The Orphan Site Cleanup Program protects public health and the environment including surface water, groundwater and municipal drinking water supplies. The program cleans sites that are seriously contaminated by releases of hazardous substances where the parties responsible for the contamination are unknown, unwilling or unable to pay. The Orphan Site Cleanup Program was established by the 1989 Legislature. Hazardous Substance Fees are to be used to pay part of the cleanup costs.

Local Government Program Phone: (503) 823-3934, (503) 823-3920, (503) 823-3763

This program augments the Oregon Community Right to Know program and is used for planning, training and emergency response.

Community Right to Know Program Phone: (503) 378-6835

This program, through the hazardous substance information survey system, identifies and locates hazardous substances throughout Oregon. This information is then provided to emergency responders for planning and training for emergencies involving hazardous substances. The legislature addressed three major concerns when it adopted the Community Right to Know Program and Protection Act (ORS 453.307 - 453.414) in 1985.

1. The public's health and safety may be endangered by a lack of knowledge about hazardous substances located in the state.

2. Information on the use of hazardous substances should be readily available to the public, allowing them to protect themselves against dangers posed to health and safety.

3. Emergency personnel must know what types and amounts of hazardous substances are present within the State and where they are located to properly protect human life and property.

OREGON DEPT OF AGRICULTURE
635 Capitol St. NE
Salem, OR 97310-0110
503/986-4635

Pesticide Dealer
1997 LICENSE RENEWAL APPLICATION

KOPPERS INDUSTRIES INC
AMOS S KAMERER
7540 NW ST HELENS RD
PORTLAND OR 97210

CURRENT LICENSE EXPIRES: 12/31/1996
Mail/Firm Number: 077467 077467
Phone number: 503/286-3681
FAX number: 503/285-2831

Business Location Address:
KOPPERS INDUSTRIES INC
AMOS S KAMERER
7540 NW ST HELENS RD
PORTLAND OR 97210

Contact person: AMOS S KAMERER
Phone number: 503/286-3681
FAX number: 503/285-2831

Lic Code
081780-65

Please complete this form and make corrections where necessary.

LICENSE FEE - Pesticide Dealer

TOTAL FEE OWED: $ 10.00

LICENSE REQUIRED ONLY FOR THOSE WHO SELL, OFFER FOR SALE, OR DISTRIBUTE RESTRICTED USE PESTICIDES. LICENSE IS SPECIFIC TO THIS LOCATION AND IS NOT VALID AT ANY OTHER LOCATIONS.

( ) Check here if license is no longer required.

Signature A. S. Kamerer Title Plant Manager Date 11/15/96

Print name A. S. Kamerer

Make remittance payable to Oregon Department of Agriculture
YOU MUST RETURN THIS APPLICATION TO RENEW OR DELETE YOUR LICENSE.

RECEIVED
NOV 15 1996
KOPPERS INDS., INC.
PORTLAND, OR

Approvals

Koppers Industries, Inc.
Pittsburgh, PA 15219

62-4
311

Location No. 9270 Date Nov. 15, 1996 No. 233726

Pay to the order of **KOPPERS INDUSTRIES, INC** Ioandoacts $10.00**********

Not valid over $3500.00

Oregon Dept. of Agriculture
635Capitol St. NE
Salem, OR 97310-0110

Payable through Mellon Bank (DE) N.A., Wilmington, DE 19899
Mellon Bank (East) N.A., Philadelphia, PA 19102

KI 179 3/90 10M

⑈233726⑈ ⑆031100047⑆ 2⑈924 918⑈

General Ledger	Detail	Sub Detail	Location or Contract	Dept. or Orig. Loc.	Tax Codes	Emp. No.	Purchase Order No. Rec. Id.	Br.	P.O. No.	P.O. Add.	P.O. Add or Resource	Quantity	Unit Code	Amount Distributed Dollars	Cents
305	973		9270	910	0362									$10.00	

Vendor No.	Description
9466 26 013	Renewal of pesticide dealer license

RECEIVED
NOV 15 1996

Koppers019544

General Ledger	Detail	Sub Detail	Location or Contract	Dept. or Orig. Loc.	Tax Codes	Emp. No.	Purchase Order No. Rec. Id.	Br.	or P.O. No.	P.O. Add.	P.O. Add or Resource	Quantity			Unit Code	Amount Distributed Dollars	Cents
305	973		9270	910	0362											$10	.00

Vendor No.	Description
9466 26 013	Renewal of pesticide dealer license

1405 – PORTLAND
Oil Pollution Act Certification of the No Substantial Harm Criteria. Signed 10/26/04

Koppers019546

Attachment C-II – Oil Pollution Act Certification of the No Substantial Harm Criteria

Facility Name:_Northwest Terminal, Portland, Oregon

Facility Address: 7540 NW Saint Helens Road, Portland, OR 97210

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?
   Yes _X_ No ___

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
   Yes ___ No _X__

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?
   Yes ___ No __X_

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility would shut down a public drinking water intake ?

   Yes ___ No _X__

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?
   Yes ___ No _X__

Certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature:

Printed Name: T. J. Turner, General Foreman Date: October 26, 2004

Note: The dock operations and the FRP dated 08/02, is managed by Pacific Terminal Services, Inc.

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: Sandi Hall, Oregon D.E.Q. DATE: 9/15/97

FROM: Amos Kamerer TOTAL # OF PAGES: 3

Re: Application # 016557

The signed City of Portland Land Use Compatibility Statement is attached. Please call if any questions.

cc: W.E. Swearingen, E.E.

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

9/16/97 — Amos completed the LUC's form in section 1 and hand carried the form to City of Portland planning department. City of Portland completed section 2 and certified it. Amos faxed completed form to Sandi Hall DEQ as noted above!

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: 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.# [redacted] 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.

X:\DALE\RTOUNG\LUCSWORD.DOC

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.

KOPPERS INDUSTRIES

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

Amos S. Kamerer
Plant Manager

Telephone: 503-285-3661
Fax: 503-285-2831

May 2, 1997

Mr. George Markwood
Vice President
Pacific Northern, Inc.
100 West Harrison #200-N
Seattle, WA 98119

Dear George,

In conjunction with the capital project we are planning, attached please find a copy of the land use application that we have prepared for a filing with the city of Portland, I believe the information is self explanatory.

As a courtesy, I wanted to share this information with you now, prior to our meeting with Ron Opitz and the actual submittal of the application. Please feel free to call if you have any questions, and I look forward to seeing you soon.

Sincerely,

Amos

Amos S. Kamerer

bcc: W.W. Turner (no enclosure)
J.T. Dietz (no enclosure)

Holland Mary

From: Self Traci
Sent: Wednesday, November 28, 2007 2:14 PM
To: Holland Mary
Subject: FW: Air Permit, Draft-07

-----Original Message-----
From: Turner TJ
Sent: Wednesday, November 28, 2007 1:59 PM
To: Self Traci; Traczek Gregory
Subject: Air Permit, Draft-07

Good Afternoon,

Please see the attached, for your review.

Thank-you,
TJ.

KOPPERS

T.J. Turner
Plant Superintendent
Carbon Materials & Chemicals
7540 NW Saint Helens Road
Portland, Oregon 97210-3663
TurnerTJ@koppers.com
www.koppers.com

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
Air Quality Program
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5554
FAX (503) 229-6945
TTY (503) 229-5471

November 20, 2007

Koppers, Inc.
Attn: T. J. Turner
7540 NW St. Helens Rd.
Portland, OR 97210

Re: Public Notice For
Air Contaminant Discharge Permit # 26-2930

Your application for a renewal of your Air Contaminant Discharge Permit has been reviewed by the Department of Environmental Quality and a proposed permit has been drafted.

A public notice period for the purpose of receiving comments from the public will start November 21, 2007 and will end December 21, 2007, 5pm. You are invited to review the attached copy of the proposed permit and submit any comments you may have prior to the end of the notice period. The public notice is distributed to interested individuals and the media.

All comments received will be evaluated by the Department and action on the proposed permit will be taken in the near future.

Sincerely,

Catherine Blaine

Catherine Blaine
Northwest Region Permit Coordinator

CC: Sandra Schmittle, Koppers, Inc., 436 7th Avenue, Pittsburgh, PA, 15219

Request for Comments

Proposed Renewal of Air Quality Permit for Koppers, Inc.

The purpose of this notice is to invite you to provide written comments on this proposed air quality permit.

DEQ's Role:
The Oregon Department of Environmental Quality (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. DEQ issues permits to regulate the type and amount of air emissions at a regulated facility. Under Oregon law, DEQ has no authority over land use issues and cannot affect the siting of any facility.

Comments due:
Written comments due: 5 p.m., December 21, 2007

Where can I send my comments?
Catherine Blaine, AQ Permit Coordinator
(503) 229-5554 or 1-800-452-4011
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201
Fax: (503) 229-5265
blaine.catherine@deq.state.or.us

Where can I get technical information?
Kathy Amidon, Permit Writer
(503) 667-8414, ext. 55010
1550 NW Eastman Parkway, Suite 290
Gresham, OR 97030
Fax: (503) 674-5148
amidon.kathy@deq.state.or.us

How can I review documents?
You can review electronic versions of the draft permit and review report in the online version of this document located at:

http://www.deq.state.or.us/news/publicnotices/PN.asp

You can review a hard copy of the draft permit and review report at the Northwest Branch, Multnomah County Library located at 2300 NW Thurman, Portland. The application, draft permit and draft report are available for review at the DEQ office in Portland. For a review appointment, call Susan Curry at (503) 229-6736.

What is proposed?
DEQ proposes to renew an air permit for Koppers, Inc. and is inviting public comment on the proposed permitting action. During the comment period the public is invited to make comments related to specific conditions within the proposed permit.

Permit expiration:
Oregon law requires facilities with a Simple Air Contaminant Discharge Permit to renew that permit every five years. When issued, this permit will be effective for five years, expiring on 11/1/2012.

Who is the applicant?
Koppers, Inc.
7540 NW St. Helens Road
Portland, OR 97210

What is the permit number?
26-2930-SI-01

Who might have an interest?
People who work, live, and recreate near the plant site.

What does Koppers do that affects air quality?
Koppers, Inc. receives, stores, and transfers coal tar pitch used in the primary aluminum production industry, and residual oil. Hot oil heaters warm the coal tar pitch prior to load-out to trucks. Fumes from storage transfer and processing are collected and routed to a fume control system. The facility includes one boiler and several storage tanks.

What legal requirements apply?
Oregon Revised Statutes (ORS) 468A.040 and Oregon Administrative Rules (OAR) Chapter 340 Division 216 and 218 give DEQ the authority to issue permits. OAR Chapter 340 Divisions 200 through 268 contains all pertinent rules that govern the air quality program.

How does DEQ determine what requirements go in the permit?
Various federal and state regulations apply to a facility depending on the type of industry, the type and amount of pollutants emitted, and the location of the facility. All applicable regulations must be contained in the permit, including the appropriate recordkeeping,

DEQ
State of Oregon
Department of
Environmental
Quality

Northwest Region
Air Quality
2020 SW Fourth Avenue
Portland, OR 97201
Phone: (503) 229-5554
(800) 452-4011
Fax: (503) 229-6945

www.oregon.gov/DEQ

Notice Issued: 11/21/07
By: Kathy Amidon

monitoring, and reporting requirements to ensure compliance with these rules.

Meeting air quality standards

Air quality in rural Columbia County meets the National Ambient Air Quality Standards (NAAQS) established by the US Environmental Protection Agency (EPA) to protect public health. DEQ has determined that the air emissions from Koppers, Inc. will not result in a violation of those standards. DEQ is responsible for establishing permit emissions limits that ensure air quality standards are not violated.

What pollutants are considered in determining permitted limits?

EPA and DEQ use six key pollutants as indicators of air quality. These are known as "criteria pollutants" and are compounds that, if inhaled, may lead to health effects that generally aggravate cardiovascular and respiratory disease. If the amount of criteria pollutants emitted is greater than a regulated minimum, then emission limits are established.

Hazardous air pollutants (HAPs) are compounds that, if inhaled, may pose a threat of adverse human health or environmental effects, including, for example, acute or chronic toxicity, cancer, birth defects, or reproductive dysfunction. The mere presence of these pollutants in the air does not necessarily mean that a health risk exists. EPA has established a list of 187 compounds that are classified and regulated as HAPs. If the amount of HAPs released is greater than a regulated minimum level, then additional requirements may also apply.

For more information about criteria pollutants, go to:

www.deq.state.or.us/aq/forms/2005ar/2005ar.pdf

For more information about hazardous air pollutants, go to:

www.epa.gov/ttn/atw/hlthef/hapindex.html

How are the permitted substances measured?

Emissions are calculated using established emission factors and a simple calculation.

Emissions and permit limits

Table 1 below presents the maximum allowable emissions for the facility. The Proposed Emission Limit reflects the maximum amount of emissions the facility would be able to emit under the proposed permit. Typically, a facility's actual emissions are less than the maximum limits established in a permit; however, actual emissions can increase up to the permitted limit.

The proposed facility does not have the potential to be a major source of HAPs. In addition, EPA has determined that these types of sources do not warrant regulation for HAPs. Combustion of natural gas results in only trace amounts of various HAPs.

Compliance history:

There have been no complaints or enforcement actions against this facility since the last permit renewal. The facility was inspected on 2/28/06 and found to be in compliance with permit conditions.

What are the special conditions of this permit?

One hot oil heater is subject to New Source Performance Standards. The Standards require that the company monitor the types and amounts of fuels combusted in the heater on a monthly basis.

What other DEQ permits are required?

This facility also has a storm water discharge permit.

What other sources of air pollutants are in the vicinity of the facility?

Koppers, Inc. is located near the rail yards in northwest Portland. It is a designated heavy industrial area.

EPA and DEQ split up the sources into three categories: point, area, and mobile sources. Point sources are primarily large industrial facilities. Area sources are smaller than point sources and include backyard burning, woodstoves, consumer products, gasoline stations, etc. Mobile sources include cars, trucks, airplanes, ships, railroads, and construction equipment.

What other information about this company is related to this permit?

The company operates no other facilities in the area.

What happens next?

After the comment period closes, DEQ will consider and provide responses to all comments received. DEQ may modify provisions in the proposed permit, but the permit writer can only

modify conditions of the permit in accordance with the rules and statutes under the authority of DEQ. Participation in the rulemaking or the legislative process is the only way to change the rules or statutes. Ultimately, if a facility meets all legal requirements, DEQ will issue the facility's air quality permit.

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 Communications & Outreach (503) 229-5696 or toll free in Oregon at (800) 452-4011; fax to 503-229-6762; or e-mail to deqinfo@deq.state.or.us.

People with hearing impairments may call DEQ's TTY number, (503) 229-6993.

Table 1

Criteria Pollutant	Current Limit (tons/yr)	Proposed Limit (tons/yr)
Sulfur Dioxide (SO_2)	39	39
Nitrogen Oxides (NO_X)	39	39
Carbon Dioxide (CO)	99	99
Volatile Organic Compounds(VOC)	39	39

DEQ-DC1

SIMPLE

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, #400
Portland, Oregon 97201
(503) 229-5554

This permit is being issued in accordance with the provisions of ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Koppers, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

PLANT SITE LOCATION:

7540 NW St. Helens Road
Portland, OR 97210

INFORMATION RELIED UPON:

Application No.: 022207
Date Received: 5/3/07

LAND USE COMPATIBILITY FINDING:

Approving Authority: City of Portland
Approval Date: 9/15/97

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Ed Druback, Northwest Region Air Quality Manager — Dated

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-0020):

Table 1 Code	Source Description	SIC/NAICS
Part B, 75	Source not otherwise listed that would emit 10 or more tons/year if uncontrolled (coal tar pitch processing)	2865 325192

TABLE OF CONTENTS

1.0 GENERAL EMISSION STANDARDS AND LIMITS 3

2.0 OPERATION AND MAINTENANCE REQUIREMENTS 4

3.0 PLANT SITE EMISSION LIMITS 5

4.0 COMPLIANCE DEMONSTRATION 5

5.0 RECORDKEEPING REQUIREMENTS 5

6.0 REPORTING REQUIREMENTS 6

7.0 ADMINISTRATIVE REQUIREMENTS 8

8.0 FEES 9

9.0 GENERAL CONDITIONS AND DISCLAIMERS 9

10.0 EMISSION FACTORS 11

11.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS 12

1.0 GENERAL EMISSION STANDARDS AND LIMITS

1.1. Visible Emissions The permittee must comply with the following visible emission limits, as applicable:

a. Emissions from any fuel burning equipment must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.

b. Emissions from any air contaminant source other than fuel burning equipment must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.

1.2. Particulate Matter Emissions The permittee must comply with the following particulate matter emission limits, as applicable:

a. Particulate matter emissions from any boilers installed on or before June 1, 1970 must not exceed 0.2 grains per standard cubic foot, corrected to 12% CO_2 or 50% excess air.

b. Particulate matter emissions from boilers installed, constructed, or modified after June 1, 1970 must not exceed 0.1 grains per standard cubic foot, corrected to 12% CO_2 or 50% excess air.

c. Particulate matter emissions from any air contaminant source installed on or before June 1, 1970 other than fuel burning equipment and fugitive emission sources must not exceed 0.2 grains per standard cubic foot.

d. Particulate matter emissions from any air contaminant source installed, constructed, or modified after June 1, 1970 other than boilers and fugitive emission sources must not exceed 0.1 grains per standard cubic foot.

1.3. Fugitive Emissions The permittee must take reasonable precautions to prevent fugitive dust emissions by:.

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

1.4. Particulate Matter Fallout The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

1.5. Nuisance and Odors The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

1.6. Fuels and Fuel Sulfur Content The permittee must not use any fuel other than natural gas, propane, butane, ASTM grade fuel oils, or on-specification used oil.

a. Fuel oils must not contain more than:

i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;

ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil;

2.0 NEW SOURCE PERFORMANCE STANDARDS

2.1. Applicability - Hot Oil Heater The facility's North American hot oil heater installed in 1999 is an affected facility under 40 CFR 60, Subpart Dc because it combusts fuel to heat a "heat transfer medium".

2.2. Fuel Monitoring The permittee must record and maintain records of the amounts of each fuel combusted in the hot oil heater during each calendar month. These records must be retained on site for a period of at least two years.

3.0 OPERATION AND MAINTENANCE REQUIREMENTS

3.1. Boiler Tune-up The permittee must conduct a maintenance service on the boiler at least once every two years. At a minimum, the service must include an inspection of the burners and refractory chamber, cleaning, adjustment, and repair as necessary. Records of the service must be maintained on site for a period of two years.

4.0 PLANT SITE EMISSION LIMITS

4.1. Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed the following:

Pollutant	Limit	Units
SO_2	39	tons per year
NO_X	39	tons per year
CO	99	tons per year
VOC	39	tons per year

4.2. Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period.

5.0 COMPLIANCE DEMONSTRATION

5.1. PSEL Compliance Monitoring

Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation for each pollutant:

$$E = \Sigma(EF \times P)/2000 \text{ lbs}$$

where,

E = pollutant emissions (ton/yr);
EF = pollutant emission factor (Condition 11.0);
P = process production data:
Oil combusted
Natural gas combusted
Hours of operation, fume recovery system

5.2. Emission Factors

The permittee must use the default emission factors provided in Condition 11.0 for calculating pollutant emissions, unless alternative emission factors are approved by the Department.

6.0 RECORDKEEPING REQUIREMENTS

6.1. Operation and Maintenance

The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices, monthly unless otherwise stated:

a. Throughput of coal tar pitch;

b. Throughput of heavy oil;

c. Boiler operating time, in hours;

d. Total hot oil heater operating time, in hours;

e. Natural gas combusted in the hot oil heater, in MMCF;

f. Natural gas combusted in the plant, in MMCF;

g. Distillate oil combusted, in 1,000 gallons;

Monthly calculation of emissions, per Condition 5.1.

6.2. Excess Emissions The permittee must maintain records of excess emissions as defined in OAR 340-214-0300 through 340-214-0340 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity for 3 minutes or more in any 60-minute period. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must cease operation of the equipment or facility no later than 48 hours after the beginning of the excess emissions, unless continued operation is approved by the Department in accordance with OAR 340-214-0330(4).

6.3. Complaint Log The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

6.4. Retention of Records Unless otherwise specified, all records must be maintained on site for a period of two (2) years and made available to the Department upon request.

7.0 REPORTING REQUIREMENTS

7.1. Excess Emissions The permittee must notify DEQ of excess emissions events if the excess emission is of a nature that could endanger public health.

a. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 8.4 by e-mail, telephone, facsimile, or in person.

b. If the excess emissions occur during non-business hours, the permittee must notify the Department by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.

c. The permittee must also submit follow-up reports when required by the Department.

7.2. Annual Report

For each year this permit is in effect, the permittee must submit to the Department by **February 15** two (2) copies of the following information for the previous calendar year:

a. Operating parameters:

i. Annual throughput of coal tar pitch;

ii. Annual throughput of heavy oil;

iii. Boiler operating time;

iv. Total hot oil heater operating time;

v. Highest sulfur content of oil combusted;

vi. Types and quantities of fuels combusted (1,000 gallons and MMCF)

b. A summary of annual pollutant emissions determined each month in accordance with Condition 5.1.

c. Records of all planned and unplanned excess emissions events.

d. Summary of complaints relating to air quality received by permittee during the year.

e. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

f. List major maintenance performed on pollution control equipment.

7.3. Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

7.4. Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. Constructing or modifying any air pollution control equipment.

7.5. Where to Send Reports and Notices

The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 8.3.

8.0 ADMINISTRATIVE REQUIREMENTS

8.1. Permit Renewal Application

The completed application package for renewal of this permit is due on **9/1/2012**. Two (2) copies of the application must be submitted to the DEQ Permit Coordinator listed in condition 8.3

8.2. Permit Modifications

Application for a modification of this permit must be submitted not less than **60** days prior to the source modification. A special activity fee must be submitted with an application for the permit modification. The fees and two (2) copies of the application must be submitted to the Business Office of the Department.

8.3. Permit Coordinator Addresses

All reports, notices, and applications should be directed to the Permit Coordinator for DEQ's Northwest Region:

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
Telephone: (503) 229-5582

8.4. Department Contacts

Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at www.deq.state.or.us. All inquiries about this permit should be directed to DEQ's Northwest Region Office:

Department of Environmental Quality
East Side Office, Air Quality Section
1550 NW Eastman Parkway, Suite 290
Gresham, OR 97030
Telephone: (503) 667-8414

9.0 FEES

9.1.	**Annual Compliance Fee**	The Annual Fee specified in OAR 340-216-0020, Table 2, Part 2 for a Simple ACDP is due on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.
9.2.	**Change of Ownership or Company Name Fee**	The non-technical permit modification fee specified in OAR 340-216-0020, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company.
9.3.	**Special Activity Fees**	The special activity fees specified in OAR 340-216-0020, Table 2, Part 3 (b through i) are due with an application to modify the permit.
9.4.	**Where to Submit Fees**	Fees must be submitted to: Department of Environmental Quality Business Office 811 SW Sixth Avenue Portland, Oregon 97204-1390

10.0 GENERAL CONDITIONS AND DISCLAIMERS

10.1.	**Permitted Activities**	This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, or is revoked.
10.2.	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
10.3.	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.

10.4.	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
10.5.	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
10.6.	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
10.7.	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
10.8.	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
10.9.	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
10.10.	**Termination, Revocation, or Modification**	The Department may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

11.0 EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units	EF reference
Oil Combustion	SO_2	71.0	Lb/1,000 gallons	DEQ Factors
	NO_X	20.0	Lb/1,000 gallons	
	CO	5.0	Lb/1,000 gallons	
	VOC	0.2	Lb/1,000 gallons	
Natural Gas Combustion	SO_2	2.6	Lb/MMCF	DEQ Factors
	NO_X	100.0	Lb/MMCF	
	CO	84.0	Lb/MMCF	
	VOC	2.8	Lb/MMCF	
Fume Recovery System	VOC	1.37	Lb/hour	Calculated by Chemcad

12.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	inspection and maintenance
lb	pound(s)
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

Department of Environmental Quality
Northwest Region
Air Quality Program

Simple
AIR CONTAMINANT DISCHARGE PERMIT
REVIEW REPORT

Koppers, Inc.
7540 NW St. Helens Road
Portland, OR 97210
(503) 286-3681

Unassigned emissions	
Emission credits	
Source test	
COMS	
CEMS	
Compliance schedule	
Special conditions	
Annual report	X
Semi-annual report	
Quarterly report	

Monthly report	
Excess emissions report	
NSPS	X
NESHAP	
NSR	
PSD	
RACT	
FCE	
Public Notice	II

TABLE OF CONTENTS

PERMITTING 2
SOURCE DESCRIPTION 2
COMPLIANCE 3
EMISSIONS 3
MAJOR SOURCE APPLICABILITY 4
ADDITIONAL REQUIREMENTS 4
PUBLIC NOTICE 5

PERMITTING

PERMITTING ACTION

1. The permit is a renewal for an existing Air Contaminant Discharge Permit (ACDP) which was issued on 11/27/02 and was originally scheduled to expire on 9/1/07. Addendum 1, issued 5/2/03, changed the corporate name from Koppers Industries, Inc. to Koppers, Inc.

OTHER PERMITS

2. Other permits issued or required by the Department of Environmental Quality for this source include NPDES 10164 for the control of storm water.

ATTAINMENT STATUS

3. The source is located in a maintenance area for CO and Ozone. NO_X and VOC are precursors to Ozone. The facility is an insignificant source of CO, NO_X and VOC. The area is in attainment for all other criteria pollutants.

SOURCE DESCRIPTION

OVERVIEW

4. Koppers, Inc. receives, stores, and transfers coal tar pitch used in the primary aluminum production industry and residual oil. Hot oil heaters warm the coal tar pitch prior to load-out to trucks. Fumes from storage transfer and processing are collected and routed to a fume control system.

5. No changes have been made to the facility since the last permit renewal.

PROCESS AND CONTROL DEVICES

6. Existing air contaminant sources at the facility consist of the following:

   a. One N. American boiler, fired on natural gas or distillate oil, 21 MM Btu/hr, 1965
   b. Two N. American hot oil heaters, fired on natural gas or distillate oil, 8 MM Btu/hr, 1990 and 10 MM Btu/hr, 1999
   c. Pitch/oil transfer system, 150,000 tons/yr, 1965; modified 1999
   d. Fume recovery system with scrubber, 1987
   e. Storage tank T-200 and a fume combustion system, 2.1 million gallons, 1999
   f. Six storage tanks, 45,000 gallons to 248,000 gallons, built 1927 - 1952

COMPLIANCE

7. The facility was inspected on 2/28/06 and found to be in compliance with permit conditions.

8. During the prior permit period there were no complaints recorded for this facility.

9. No enforcement actions have been taken against this source since the last permit renewal.

EMISSIONS

10. Proposed PSEL information:

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limits (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
SO_2	0	0	0	39	39	0
NO_x	0	0	0	39	39	0
CO	0	0	0	99	99	0
VOC	0	0	0	39	39	0

a. The proposed PSELs for all pollutants are equal to the Generic PSEL in accordance with OAR 340-216-0064(4)(b) and the netting basis is zero in accordance with OAR 340-222-0040(2).
b. PM/PM_{10} are considered negligible and are not included in the PSEL.
c. Fuel usage is estimated at 184 MMCF of natural gas and 100,000 gallons of diesel oil.
d. The PSEL is a federally enforceable limit on the potential to emit.

SIGNIFICANT EMISSION RATE ANALYSIS

11. For each pollutant, the proposed Plant Site Emission Limit is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

12. A major source is a facility that has the potential to emit 100 or more tons per year of any criteria pollutant. This facility is not a major source of criteria pollutant emissions. PTE for this facility is: 21 tons SO_2; 23 tons NO_X; 6 tons CO; and 19 tons VOC.

HAZARDOUS AIR POLLUTANTS

13. A major source is a facility that has the potential to emit 10 or more tons/year of any single HAP, or 25 or more tons/year of combined HAPs. This facility is not a major source of hazardous air pollutants.

Hazardous Air Pollutant	Potential to Emit (tons/year)
Napthalene	2.00
Quinoline	0.13
Biphenyl	0.16
Dibenzofuran	1.0
Total	3.0

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

14. 40 CFR 60 Dc, Small Steam Generating Units, is applicable to the hot oil heater installed in 1999. 40 CFR 60.41c defines a steam generating unit as "a device that combusts any fuel and produces steam or heats water or any other heat transfer medium." The hot oil heater has a heat input value of 10 MM Btu/hour and is thus subject to the NSPS.

    The permittee has removed from the hot oil heater the ability to combust oil; only natural gas will be used. See the letter dated 10/10/07 in the file. The only applicable requirement is to keep records of fuels used in the heater. No reporting requirement applies. Fuel usage records will be kept on site for review.

NESHAPS/MACT APPLICABILITY

15. There are no sources at this facility for which NESHAPS/MACT standards have been promulgated.

RACT APPLICABILITY

16. The facility is located in the Portland AQMA, but it is not one of the listed source categories in OAR 340-232-0010, thus the categorical RACT rules do not apply. The facility does not have the potential to emit 100 tons of any criteria pollutant, thus source specific RACT does not apply.

TACT APPLICABILITY

17. The source is meeting the states TACT/Highest and Best Rules by using water in the fume recovery system instead of oil and using the recovery system only as needed. A thermal oxidizer will be installed when production levels reach 5,000 tons per month for three consecutive months (NC 18175, 6/2000)

PUBLIC NOTICE

18. Pursuant to OAR 340-216-0064(5)(a), issuance of Simple Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3)(b), which requires that the Department provide notice of the proposed permit action and a minimum of 30 days for interested persons to submit written comments. **The public notice was made available for public comment from November 21, 2007 until December 21, 2007, 5pm..**

ka:gg
11/20/2007

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region Portland Office
Air Quality Program
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5554
FAX (503) 229-5265
TTY (503) 229-5471

October 15, 2002

RECEIVED
OCT 21 2002

Koppers Industries, Inc.
Attn: Amos S. Kamerer
436 Seventh Avenue #1800
Pittsburgh, PA 15219-1800

Re: Public Notice For Air Contaminant Discharge
Permit #26-2930, Application # 020276

Your application for an Air Contaminant Discharge Permit has been reviewed by the Department of Environmental Quality and a proposed permit has been drafted.

The Department has issued a public notice from October 17 , 2002 to November 18, 2002. You are invited to review the attached copy of the proposed permit and submit any comments you may have prior to the end of the notice period. The public notice is distributed to interested individuals and the media.

All comments received will be evaluated by the Department and action on the proposed permit will be taken in the near future.

Sincerely,

Catherine Blaine

Catherine Blaine
Permit Coordinator
Air Quality Program
Northwest Region

Enclosure

copy sent to
Amos Kamerer
11/8/02
M. Holland

Koppers019574

Public Notice: Request for Comments

Proposed Renewal of Koppers Industries, Inc. Air Contaminant Discharge Permit

State of Oregon
Department of
Environmental
Quality

Northwest Region
Air Quality Section
2020 SW 4th Ave.
Portland, OR 97201
(503) 229-5554
1-800-452-4011
Fax: (503) 229-5265

www.deq.state.or.us

Notice issued: October 17, 2002

Written comments regarding this proposed action may be submitted until due: 5 p.m., November 18, 2002

Permit Number: 26-2930

Permittee Address:
Koppers Industries, Inc.
436 Seventh Avenue, Suite 1800
Pittsburgh, PA 15219-1800

Where is the facility located?
7540 NW Saint Helens Road
Portland, Oregon 97210-3663

Where can I get more information and send comments?
The full context of the application, which may include voluminous printed material not readily duplicable, is available for public inspection Tuesday through Thursday by appointment at DEQ's Northwest Region Office.
2020 SW 4th Avenue, Suite 400
Portland, Oregon 97201
For a review appointment call (503) 229-5554
Upon request, a copy of the permit and review report is available.

View the Proposed Permit and Review Report at:
Multnomah County Library
Central Branch
801 S.W. 10th Avenue
Portland, Oregon 97205
DEQ accepts comments by mail, fax and E-mail.

E-Mail Address:
blaine.catherine@deq.state.or.us
(If there is a delay between servers and e-mails and the e-mails are not received before the deadline, they cannot be accepted)

Fax: (503) 229-5265

Mailing Address:
AQ/NWR, Catherine Blaine, Permit Coordinator
Department of Environmental Quality
2020 SW 4th Ave., Suite 400
Portland, OR 97201-4987

Permit Writer: Rose Lim
Phone: (503) 229-6191
Toll free in Oregon (800) 452-4011

What is proposed?
This permit action is a renewal of an existing Air Contaminant Discharge Permit (ACDP). The old ACDP is being converted to a Simple ACDP in accordance with the rules adopted in May 2001.Koppers Industries, Inc. operates a coal tar processing facility at 7540 NW Saint Helens Road, Portland. The facility receives stores and transfers coal tar pitch primarily used in the aluminum production industry. The major emissions sources at this facility consist of combustion sources used to heat the coal tar pitch, and fumes from the storage transfer and processing of the pitch. The fumes are collected and routed to a fume control system.

Plant Site Emissions: Proposed PSEL information:

Pollutant	Previous PSEL (tons/yr)	Proposed PSEL (ton/yr)	Generic PSEL Levels
SO_2	22	39	39
NO_x	28	39	39
CO	7	99	99
VOC	20.4	39	39

Proposed Plant Site Emission Limits: The PSELs for PM, CO, and VOC are higher than the PSELs in the previous permit. This is due solely to the implementation of new Department rules that do not support PSELs less than the "generic PSEL" levels. The generic PSEL levels are equal the Significant Emission Rate minus 1 ton per 12 month period, for each pollutant.

Compliance: The facility was inspected on 08/05/2002 and was found to be in compliance with permit conditions. During the permit period there were no complaints recorded for this facility. No enforcement actions have been taken against this source since the last permit renewal.

What other DEQ permits are required?
The Department has issued a water quality permit to this facility, NPDES 100419. The site includes 25 tanks for the collection and storage of storm water.

Hazardous Air Pollutants: This facility is not currently subject to any specific Federal National Emissions Standard for Hazardous Air Pollutants.

Attainment Status:
The permittee is located in a maintenance area for ozone and carbon monoxide. Two contributors to ozone, nitrogen oxides (NO_x) and volatile organic compounds (VOC), are regulated pollutants. The facility is an insignificant source of CO, NO_x and VOC. The area is in attainment for all other pollutants.

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 (800) 452-4011. People with hearing impairments may call DEQ's TTY number, (503) 229-5471

What are DEQ's responsibilities?
The 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 affected?
Property owners and residents in the vicinity of the facility.

What happens next?
DEQ will review and consider all comments received during the comment period. Following this review, DEQ may modify and issue the permit.

GLOSSARY

CO (Carbon Monoxide) -- An invisible gas, usually formed as a product of combustion. CO is considered a pollutant because it has adverse health effects.

NO_X (Nitrogen Oxides) -- A brown-colored, toxic gas, usually formed during high temperature combustion processes. NO_x is considered a pollutant because it contributes to the formation of ozone and acid rain.

VOC (Volatile Organic Compounds) -- Organic chemicals containing carbon which, when vaporized, combine with NO_X, in the presence of sunlight to form ozone.

SO_2- (Sulfur Dioxide) An invisible gas with a pungent odor, formed by burning fossil fuel which contains sulfur. SO_2 is considered a pollutant because it can form particles that decrease visibility, and because large amounts of it can cause acid rain.

SIMPLE

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, #400
Portland, Oregon 97201
(503) 229-5554

This permit is being issued in accordance with the provisions of ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Koppers Industries, Inc.
7540 NW Saint Helens Road
Portland, OR 97210-3663

PLANT SITE LOCATION:

7540 NW Saint Helens Road
Portland, OR 97210-3663

INFORMATION RELIED UPON:

Application No.: 0020276
Date Received: 06/27/2002

LAND USE COMPATIBILITY FINDING:

Approving Authority: City of Portland
Approval Date: 09/15/1997

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Audrey O'Brien, Northwest Region Air Quality Manager — Dated

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-0020):

Table 1 Code	Source Description	SIC
Part B, #75	All Other Sources not listed in Part B (Coal tar pitch processing facility)	2865

TABLE OF CONTENTS

1.0 GENERAL EMISSION STANDARDS AND LIMITS 3

2.0 OPERATION AND MAINTENANCE REQUIREMENTS 5

3.0 PLANT SITE EMISSION LIMITS 5

4.0 COMPLIANCE DEMONSTRATION 6

5.0 RECORDKEEPING REQUIREMENTS 6

6.0 REPORTING REQUIREMENTS 7

7.0 ADMINISTRATIVE REQUIREMENTS 9

8.0 FEES 10

9.0 GENERAL CONDITIONS AND DISCLAIMERS 10

10.0 EMISSION FACTORS 11

11.0 PROCESS/PRODUCTION RECORDS 12

12.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS 12

1.0 GENERAL EMISSION STANDARDS AND LIMITS

1.1 Visible Emissions

The permittee must comply with the following visible emission limits, as applicable:

a. Emissions from any air contaminant source installed on or before June 1, 1970 must not exceed an opacity equal to or greater than 40% for a period aggregating more than 3 minutes in any one hour.

b. Emissions from any air contaminant source installed, constructed, or modified after June 1, 1970 must not exceed an opacity equal to or greater than 20% for a period aggregating more than 3 minutes in any one hour.

c. Emissions from any air contaminant source other than fuel burning equipment must not exceed an opacity equal to or greater than 20% for a period aggregating more than 30 seconds in any one hour.

1.2. Particulate Matter Emissions

The permittee must comply with the following particulate matter emission limits, as applicable:

a. Particulate matter emissions from any fuel burning equipment installed on or before June 1, 1970 must not exceed 0.2 grains per standard cubic foot, corrected to 12% CO_2 or 50% excess air.

b. Particulate matter emissions from any burning equipment installed, constructed, or modified after June 1, 1970 must not exceed 0.1 grains per standard cubic foot, corrected to 12% CO_2 or 50% excess air.

c. Particulate matter emissions from fuel burning equipment must not exceed:

i. 0.2 grains per dry standard cubic foot corrected to 12% CO_2 when using wood residue in equipment that existed before April 7, 1978;

ii. 0.1 grains per dry standard cubic foot corrected to 12% CO_2 when using wood residue in equipment that did not exist before April 7, 1978; or

iii. The emission rate shown in Figure 1 of OAR 340-208-0610 as a function of the maximum heat input when using all other fuels, except natural gas and LPG.

d. Particulate matter emissions from any air contaminant source installed on or before June 1, 1970 other than fuel

burning equipment and fugitive emission sources must not exceed 0.2 grains per standard cubic foot.

e. Particulate matter emissions from any air contaminant source installed, constructed, or modified after June 1, 1970 other than fuel burning equipment and fugitive emission sources must not exceed 0.1 grains per standard cubic foot.

f. Non-fugitive particulate matter emissions from any process must not exceed the amount shown in Table 1 of OAR 340-226-0310 for the process weight allocated to such a process.

1.3. Fugitive Emissions

The permittee must take reasonable precautions to prevent fugitive dust emissions by:.

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

1.4. Particulate Matter Fallout

The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

1.5. Nuisance and Odors

The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

1.6. Fuels and Fuel Sulfur Content

The permittee must not use any fuel other than natural gas, propane, butane, ASTM grade fuel oils, or on-specification used oil.

a. Fuel oils must not contain more than:

i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;

ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil;

iii. 1.75% sulfur by weight for residual oil;

b. The permittee is allowed to use on-specification used oil as fuel which contains no more than 0.5% sulfur by weight. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that it can be demonstrated that each shipment of oil does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1.

2.0 OPERATION AND MAINTENANCE REQUIREMENTS

2.1. Work practices

a. The permittee shall at all times maintain and operate all air contaminant generating processes and all air contaminant control equipment at full efficiency and effectiveness, such that the emission of air contaminant are kept at the lowest practicable levels.

b. A maintenance service must be performed on the boiler at least once every two years. As a minimum, the service must include an inspection of the burners and refractory chamber, cleaning adjustment, and repair as necessary. Records of the service shall be maintained on site for a period of two (2) years and for Department's inspection.

3.0 PLANT SITE EMISSION LIMITS

3.1. Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed the following:

Pollutant	Limit	Units
SO_2	39	tons per year
NO_X	39	tons per year
CO	99	tons per year
VOC	39	tons per year

3.2. Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period.

4.0 COMPLIANCE DEMONSTRATION

4.1. Monitoring Requirements

The permittee must monitor the operation and maintenance of the plant and associated air contaminant control devices as follows:

a. All operating and production parameters to be reported to the Department annually as required in Condition 6.0.

b. Excess emission (recorded on occurrence)

c. A description of any maintenance to the air contaminant control system (recorded on occurrence)

4.2. PSEL Compliance Monitoring

Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation for each pollutant:

$$E = \Sigma(EF \times P)/2000 \text{ lbs}$$

where,

E = pollutant emissions (ton/yr);
EF = pollutant emission factor (see condition 0);
P = process production (see condition 11.0)

4.3. Emission Factors

The permittee must use the default emission factors provided in condition 0 for calculating pollutant emissions, unless alternative emission factors are approved by the Department. The permittee may request or the Department may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by the Department.

4.4. Mass Balance with controls

Annual VOC emissions for each 12 consecutive calendar month period are calculated by the following formula:

Total VOC = [1.37(lb/operating hours) + 2.8 (lb/MMCF of natural gas) + 0.2 (lb/1000 gals distillate)] ÷ 1ton/2000 lbs

5.0 RECORDKEEPING REQUIREMENTS

5.1. Operation and Maintenance

The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices:

a. All operating and production parameters to be reported to the Department annually as required in Condition 6.0.

b. Maintenance service record performed on the boiler.

5.2. Excess Emissions The permittee must maintain records of excess emissions as defined in OAR 340-214-0300 through 340-214-0340 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity for 3 minutes or more in any 60-minute period.

5.3. Complaint Log The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

5.4. Retention of Records Unless otherwise specified, all records must be maintained on site for a period of two (2) years and made available to the Department upon request.

6.0 REPORTING REQUIREMENTS

6.1. Excess Emissions The permittee must notify the Department by telephone or in person of any excess emissions which are of a nature that could endanger public health.

a. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 7.3.

b. If the excess emissions occur during non-business hours, the permittee must notify the Department by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.

c. The permittee must also submit follow-up reports when required by the Department.

6.2. Annual Report For each year this permit is in effect, the permittee must submit to the Department by **February 15** two (2) copies of the following information for the previous calendar year:

a. Operating parameters:

i. Annual throughput of coal tar pitch

ii. Annual throughput of heavy oil

iii. Total boiler operating time (hours/year)

iv. Total hot oil heater operating time (hours/year)

v. Highest sulfur content oil burned (obtained from supplier)

vi. Types and quantities of fuels burned (gallons or MMCE)

vii. Average plant operating schedule (hours/day, days/week, weeks/year)

b. Computations of total VOC and HAPs emissions for any 12 consecutive months period.

c. Records of all planned and unplanned excess emissions events.

d. Summary of complaints relating to air quality received by permittee during the year.

e. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

f. List major maintenance performed on pollution control equipment.

6.3. Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

6.4. Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. Constructing or modifying any air pollution control equipment.

6.5. Where to Send Reports and Notices The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 7.3.

7.0 ADMINISTRATIVE REQUIREMENTS

7.1. Permit Renewal Application The completed application package for renewal of this permit is due on July 1, 2007. Two (2) copies of the application must be submitted to the DEQ Permit Coordinator listed in condition 7.3

7.2. Permit Modifications Application for a modification of this permit must be submitted not less than **60** days prior to the source modification. A special activity fee must be submitted with an application for the permit modification. The fees and two (2) copies of the application must be submitted to the Business Office of the Department.

7.3. Permit Coordinator Address All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows:

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
Telephone: (503) 229-5582

7.4. Department Contacts Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at www.deq.state.or.us. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Department of Environmental Quality
Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
Telephone: (503) 229-5554

8.0 FEES

8.1.	**Annual Compliance Fee**	The Annual Fee specified in OAR 340-216-0020, Table 2, Part 2 for a Simple ACDP is due on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.
8.2.	**Change of Ownership or Company Name Fee**	The non-technical permit modification fee specified in OAR 340-216-0020, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company.
8.3.	**Special Activity Fees**	The special activity fees specified in OAR 340-216-0020, Table 2, Part 3 (b through i) are due with an application to modify the permit.
8.4.	**Where to Submit Fees**	Fees must be submitted to: Department of Environmental Quality Business Office 811 SW Sixth Avenue Portland, Oregon 97204-1390

9.0 GENERAL CONDITIONS AND DISCLAIMERS

9.1.	**Permitted Activities**	This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, or is revoked.
9.2.	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
9.3.	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
9.4.	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
9.5.	**Department**	The permittee must allow the Department's representatives access

	Access	to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
9.6.	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
9.7.	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
9.8.	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
9.9.	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
9.10.	**Termination, Revocation, or Modification**	The Department may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

10.0 EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units	EF reference
Fuel Combustion:				
a) Oil, Distillate	SO_2	71	lb/1,000 gal	DEQ Emission Factor
	NO_x	20	lb/1,000 gal	DEQ Emission Factor

	CO	5	lb/1,000 gal	DEQ Emission Factor
	VOC	0.2	Lb/1,000 gal	DEQ Emission Factor
b) Natural gas	SO_2	2.6	lb/MMCF	DEQ Emission Factor
	NO_x	140	lb/MMCF	DEQ Emission Factor
	CO	35	lb/MMCF	DEQ Emission Factor
	VOC	2.8	lb/MMCF	DEQ Emission Factor
Fume Recovery System	VOC	1.37	lb/hr	Emission calculated using ChemCAD

11.0 PROCESS/PRODUCTION RECORDS

Emissions device or activity	Process or production parameter	Frequency
Operating hours	Hours/yr	Once a month
Fuel usage: a) oil	Gallons/hour	Once a month
b) natural gas	MM cubic feet/hour	Once a month
VOC emissions	Gallons/hour	Once a month

12.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act

gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	inspection and maintenance
lb	pound(s)
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

Department of Environmental Quality
Northwest Region
Air Quality Program

Simple
AIR CONTAMINANT DISCHARGE PERMIT
REVIEW REPORT

Koppers Industries, Inc.
7540 N.W. Saint Helens Road
Portland, OR 97210-3663
(503) 286-368`

Source Test	Compl Sched	Report				Excess		NSR	PSD	RACT	NSPS	NESHAP	Size	Public Notice
		A	S	Q	M	R	N							
		X					X						SI	II

TABLE OF CONTENTS

PERMITTING 2

SOURCE DESCRIPTION 2

COMPLIANCE 3

EMISSIONS 4

MAJOR SOURCE APPLICABILITY 5

ADDITIONAL REQUIREMENTS 6

PUBLIC NOTICE 7

PERMITTING

PERMITTING ACTION

1. The permit is a renewal for an existing Air Contaminant Discharge Permit (ACDP) which was issued on June 1, 1999 and was originally scheduled to expire on September 1, 2002. The old ACDP is being converted to a Simple ACDP in accordance with the rules adopted in May 2001.

OTHER PERMITS

2. The Department has issued a water quality permit to this facility, NPDES 100419. The plant site includes 25 tanks for the collection and storage of storm water.

3. A Land Use Compatibility Statement signed by the City of Portland on September 15, 1997 granted unconditional approval.

ATTAINMENT STATUS

4. The facility is located in a maintenance area for carbon monoxide and ozone. Two contributors to ozone, nitrogen oxides (NO_x) and volatile organic compounds (VOC), are regulated pollutants.

5. The facility is an insignificant source of CO, NO_x, and VOC. The area is an attainment for all other pollutants.

SOURCE DESCRIPTION

OVERVIEW

6. Koppers Industries, Inc., operates a coal tar pitch processing facility at 7540 NW Saint Helens Road, Portland. The facility receives, stores, and transfers coal tar pitch primarily used in the primary aluminum production industry. The major emissions sources at this facility consist of combustion sources used to heat the coal tar pitch, and fumes from the storage transfer and processing of the pitch. The fumes are collected and routed to a fume control system.

7. Notice of Construction (NC. No. 018175) approved on Oct. 10, 2000, allows the permittee's request to upgrade the fume control system that includes the replacement of the existing fume control system with a new thermal oxidizer. The Department also approved the facility's request to delay installation of the thermal oxidizer because of the following reasons:
   a. The current and foreseeable drastic decline in Koppers' business due to shut down

of the aluminum customers operations.

b. The reduction in emissions from permitted quantities from the operating schedule changes, as a result of the reduction in throughput.

c. A recent modification to the operation of the fume recovery system reduces emissions further.

8. No changes have been made to the facility since the last permit renewal.

9. Current rules do not require short term plant site emission. This requirement has been deleted.

PROCESS AND CONTROL DEVICES

10. Existing air contaminant sources at the facility consist of the following:

Equipment	Manufacturer	Capacity/Rate	Installed/Modified
Boiler, fired on natural gas or distillate oil	N. American	21 MM BTU/hr input	1965
Hot oil heater, fired on natural gas or oil	N. American	8 MM BTU/hr input	1990
Hotoil heater, fired on natural gas or oil	N. American	10 MM BTU/hr input	1999
Pitch /oil transfer system	N/A	150,000 ton/year	1965 modified in 1999
Fumer recovery system with scrubber	N/A	150,000 ton/year	1987
Storage tank (T-200) and a fume combustion system (ref. NC #018175)	N/A	2,100,000 gals	1999
Storage Tank 33 and 67	N/A	45,000 & 102,000 gals	1942 & 1947
Storage Tank 66 and 101	N/A	191,000 & 759,000 gals	1947 & 1952
Storage Tank 65 and 68	N/A	761,000 & 248,000 gals	1947 & 1927

COMPLIANCE

11. The facility was inspected on 08/05/2002 and found to be in compliance with permit conditions.

12. During the prior permit period there were no complaints recorded for this facility.

13. No enforcement actions have been taken against this source since the last permit renewal.

EMISSIONS

14. Proposed PSEL information:

Pollutant	*Baseline Emission Rate (tons/yr)	Plant Site Emission Limit (tons/yr)			Increase Over Baseline (tons.yr)	SER
		Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	Increase Over Existing Permit (tons/yr)		
SO_2	0	22	39	17	39	40
NO_x	0	28	39	11	39	40
CO	0	7	99	92	99	100
VOC	0	20	39	19	39	40

*Netting basis is the same as baseline for this source.

a. The proposed PSEL for all pollutants are equal to the Generic PSEL in accordance with OAR 340-216-0064(4)(b) and the netting basis is zero in accordance with OAR 340-222-0040(2).
b. Emissions of PM and PM_{10} are less than one ton per year. PM and PM_{10} are considered negligible. PM and PM_{10} are not included in the Plant Site Emission Limit as shown above.
c. The facility was in operation during the baseline years. Baseline year information has not been provided, however, so baseline emission rates have not been established.
d. Baseline emissions rate for this facility is zero and are now frozen per OAR 340-200-0020(71)(a). The netting basis is also set at zero for this source.
e. The PSEL is a federally enforceable limit on the potential to emit.

15. The normal operating schedule for the equipment is 24 hrs/day x 4 days/wk x 52 wks/yr less 11 holidays = 5976 hrs/yr.

16. Normal annual fuel usage is 100,000 gallons of diesel oil and 184 million cubic feet of natural gas. Maximum hourly fuel burned is 150 gallons of diesel oil and/or 30,000 cubic feet of natural gas.

17. Throughput of pitch pencil is expected to be 100,000 tons per year and a maximum of 562 tons per hour.

SIGNIFICANT EMISSION RATE ANALYSIS

18. The proposed Plant Site Emissions Limit is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

19. A major source is a facility that has the potential to emit more than 100 tons per year of any criteria pollutant. This facility is not a major source of criteria pollutant emissions.

Plant Wide Potential to Emit:

POLLUTANT	SO_2 (tons/yr)	NO_x (tons/yr)	CO (tons/yr)	VOC (tons/yr)
Boiler	11.31	12.52	3.13	0.25
Hot Oil Heater*	4.60	3.97	.88	0.19
Fume Recovery System				18.11
Tank 33				0.016
Tank 67				0.006
Fugitives				0.568
New Hot Oil Heater	5.34	5.96	1.49	0.12
T-200, T-65, & T-68* *				**See Note
T-66 and T-101***				***See Note
TOTAL (tons/yr)	21.25	22.45	5.50	19.26

Notes:
*Via a prior notification to the Department that this is not a back up unit.

** VOC Emissions from T-200, T-65, and T-68 are included in the fume recovery system emissions.

***T-66 and T-101 contained solid coal tar residue. The VOC emission is insignificant.

HAZARDOUS AIR POLLUTANTS

20. A major source is a facility that has the potential to emit more than 10 tons/year of any single HAP or 25 tons/year of combined HAPs. This source is not a major source of hazardous air pollutants.

Hazardous Air Pollutant	Potential to Emit (tons/year)

Naphthalene	2
Quinoline	0.13
Biphenyl	0.16
Dibenzofuran	1
Total	3

21. The source PTE has less than 80% of the threshold values for Title V for criteria pollutant, and less than 80% of the threshold values for Title III for single HAPs and combined HAPs, therefore, full compliance evaluation (FCE) is not required.

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

22. There are no sources at this facility for which NSPS standards have been promulgated.

NSR/PSD APPLICABILITY

23. This source is not subject to federal regulations for New Source Review (NSR) or further air quality analysis.

24. This source is not subject to federal regulations for Prevention of Significant Deterioration (PSD).

NESHAPS/MACT APPLICABILITY

25. There are no sources at this facility for which NESHAPS/MACT standards have been promulgated.

RACT APPLICABILITY

26. The facility is located in the Portland AQMA, but it is not one of the listed source categories in OAR 340-232-0010, thus the RACT rules do not apply.

TACT APPLICABILITY

27. The source is meeting the states TACT/Highest and Best Rules by conducting the following activities:
    a. A change in the wash fluid used in the fume recovery unit from heavy oil to

water.

b. The plant is now operating 5 days per week and dependent on business conditions this could change again, at some time in the future.

c. The fume recovery unit only operates during hours needed thus reduces emission further.

d. The installation of the thermal oxidizer once the business level reaches 75% of the original projected level based on the through put or until monthly through put reaches 5000 tons per month for three consecutive months.

PUBLIC NOTICE

28. Pursuant to OAR 340-216-0064(5)(a), renewals of Simple Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3)(b). Therefore, the proposed permit will be placed on public notice from October 17, 2002 to November 18, 2002.

POLLUTANT	PREVIOUS PSEL (tons/yr)	PROPOSED PSEL (tons/yr)	ESTIMATED ACTUAL EMISSIONS (tons/yr)
SO_2	22	39	0.02
NO_x	28	39	1
CO	7	99	0.51
VOC	20	39	1.13

Department of Environmental Quality
Northwest Region
Air Quality Program

Simple
AIR CONTAMINANT DISCHARGE PERMIT
REVIEW REPORT

Koppers Industries, Inc.
7540 N.W. St. Helens Road
Portland, OR 97210-3663
(503) 286-368`

Source Test	Compl Sched	Report				Excess		NSR	PSD	RACT	NSPS	NESHAP	Size	Public Notice
		A	S	Q	M	R	N							
		X					X						SI	II

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PERMITTING ACTION

1. The permit is a renewal for an existing Air Contaminant Discharge Permit (ACDP) which was issued on June 1, 1999 and was originally scheduled to expire on September 1, 2002. The old ACDP is being converted to a Simple ACDP in accordance with the rules adopted in May 2001.

OTHER PERMITS

2. The Department has issued a water quality permit to this facility, NPDES 100419. The plant site includes 25 tanks for the collection and storage of storm water.

3. A Land Use Compatibility Statement signed by the City of Portland on September 15, 1997 granted unconditional approval.

ATTAINMENT STATUS

4. The facility is located in a maintenance area for carbon monoxide and ozone. Two contributors to ozone, nitrogen oxides (NO_x) and volatile organic compounds (VOC), are regulated pollutants.

5. The facility is an insignificant source of CO, NO_x, and VOC. The area is an attainment for all other pollutants.

SOURCE DESCRIPTION

OVERVIEW

6. Koppers Industries, Inc., operates a coal tar pitch processing facility at 7540 NW ST. Helens Road, Portland. The facility receives, stores, and transfers coal tar pitch primarily used in the primary aluminum production industry. The major emissions sources at this facility consist of combustion sources used to heat the coal tar pitch, and fumes from the storage transfer and processing of the pitch. The fumes are collected and routed to a fume control system.

7. Notice of Construction (NC. No. 018175) approved the permittee's request to upgrade the fume control system that includes the replacement of the existing fume control system with a new thermal oxidizer. The Department also approved the facility's request to delay installation of the thermal oxidizer because of the following reasons:
   a. The current and foreseeable drastic decline in Koppers' business due to shut down of the aluminum customers operations.

b. The reduction in emissions from permitted quantities from the operating schedule changes, as a result of the reduction in throughput.

c. Recent modification to the operation of the fume recovery system reduces emission further.

8. No changes have been made to the facility since the last permit renewal.

PROCESS AND CONTROL DEVICES

9. Existing air contaminant sources at the facility consist of the following:

Equipment	Manufacturer	Capacity/Rate	Installed/Modified
Boiler, fired on natural gas or distillate oil	N. American	21 MM BTU/hr input	1965
Hot oil heater, fired on natural gas or oil	N. American	8 MM BTU/hr input	1990
Hotoil heater, fired on natural gas or oil	N. American	10 MM BTU/hr input	1999
Pitch /oil transfer system	N/A	150,000 ton/year	1965 1999 (mod.)
Fumer recovery system with scrubber	N/A	150,000 ton/year	1987
Storage tank (T-210) and a fume combustion system (ref. NC #018175)	N/A	???	???
Storage Tank 33 and 67	????	????	????

COMPLIANCE

10. The facility was inspected on 08/05/2002 and found to be in compliance with permit conditions.

11. During the prior permit period there were no complaints recorded for this facility.

12. No enforcement actions have been taken against this source since the last permit renewal.

EMISSIONS

13. Proposed PSEL information:

Pollutant	*Baseline Emission Rate (tons/yr)	Plant Site Emission Limit (tons/yr)			Increase Over Baseline (tons.yr)	SER
		Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	Increase Over Existing Permit (tons/yr)		
SO_2	0	22	39	17	39	40
NO_x	0	28	39	11	39	40
CO	0	7	99	92	99	100
VOC	0	20	39	19	39	40

*Netting basis is the same as baseline for this source.

a. The proposed PSELs for all pollutants are equal to the Generic PSEL in accordance with OAR 340-216-0064(4)(b) and the netting basis is zero in accordance with OAR 340-222-0040(2).
b. Emissions of PM and PM_{10} are less than one ton per year. For the original permit, PM and PM_{10} are considered negligible. PM and PM_{10} are not included in the Plant Site Emission Limit as shown above.
c. The facility was in operation during the baseline years. Baseline year information has not been provided, however, so baseline emission rates have not been established.
d. Baseline emissions rate for this facility is zero and are now frozen per OAR 340-200-0020(71)(a).
e. The PSEL is a federally enforceable limit on the potential to emit.

14. The normal operating schedule for the equipment is 24 hrs/day x 4 days/wk x 52 wks/yr = 4992 hrs/yr. ??????

15. Normal annual fuel usage is 100,000 gallons of diesel oil and 184 million cubic feet of natural gas. Maximum hourly fuel burned is 150 gallons of diesel oil and/or 30,000 cubic feet of natural gas. ??????

16. Throughput of pitch pencil is expected to be 100,000 tons per year and a maximum of 562 tons per hour. ??????

SIGNIFICANT EMISSION RATE ANALYSIS

17. The proposed Plant Site Emissions Limit is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

18. A major source is a facility that has the potential to emit more than 100 tons per year of any criteria pollutant. This facility is not a major source of criteria pollutant emissions.

Plant Wide Capacity to Emit:

POLLUTANT	SO_2	NO_x	CO	VOC
Boiler	11.31	12.52	3.13	0.25
Hot Oil Heater (back up unit)	4.60	3.97	.88	0.19
Fume Recovery System				18.11
Tank 33				0.016
Tank 67				0.006
Fugitives				0.568
New Hot Oil Heater	5.34	5.96	1.49	0.12
T-200*				*See Note
TOTAL	21.25	22.45	5.50	19.26

* Note: VOC Emissions from T-200 are included in the fume recovery system emissions.

HAZARDOUS AIR POLLUTANTS

19. A major source is a facility that has the potential to emit more than 10 tons/year of any single HAP or 25 tons/year of combined HAPs. This source is not a major source of hazardous air pollutants.

Hazardous Air Pollutant	Potential to Emit (tons/year)
Naphthalene	1.76
Quinoline	0.13
Biphenyl	0.16
Dibenzofuran	1.07
Total	3.12

20. The source PTE has less than 80% of the threshold values for Title V for criteria pollutant, and less than 80% of the threshold values for Title III for single HAPs and combined HAPs, therefore, full compliance evaluation (FCE) is not required.

PUBLIC NOTICE

27. Pursuant to OAR 340-216-0064(5)(a), renewals of Simple Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3)(b). Therefore, the proposed permit will be placed on public notice from _____ to _____.

POLLUTANT	PREVIOUS PSEL (tons/yr)	PROPOSED PSEL (tons/yr)	ESTIMATED ACTUAL EMISSIONS (tons/yr)
SO_2	22	39	21
NO_x	28	39	22
CO	7	99	6
VOC	20	39	19

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 27, 2002

Oregon Dept. of Environmental Quality
Northwest Region
2020 SW Fourth Ave., Suite 400
Portland, Oregon 97201-4987

Ms. Catherine Blaine
Air Quality Permit Coordinator

Reference: Renewal of Air Containment Discharge Permit
ACDP # 26-2930

Dear Ms. Blaine,

Attached please find the completed AQ101 Answer Sheet for the renewal without changes of our Air Containment Discharge Permit # 26-2930. We would also like to reference, as a part of this renewal, the open Notice of Intent to Construct # 018175, that we feel is a part of the existing ACDP.

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: J. Dietz, KII
T. Self, KII

ADMINISTRATIVE INFORMATION

FORM AQ101
ANSWER SHEET

FOR DEQ USE ONLY	
Permit Number: *#*	Type of Application:
Application No:	EXT ___ RNW x ___ MOD ___
Date Received:	NEW ___ SM ___
Regional Office:	Check No. Amount $

1. Company	2. Facility Location
Legal Name: Koppers Industries, Inc.	Name: Koppers Industries, Inc.
Mailing Address: 436 Seventh Avenue # 1800	Street Address: 7540 NW Saint Helens Road
City, State, Zip Code: Pittsburgh, PA 15219-1800	City, County, Zip Code: Portland, Multmona, OR 97210-3663
3. Site Contact Person	**4. Standard Industrial Classification Code(s)**
Name: Amos S. Kamerer	Primary: 2865
Title: Plant Manager	Secondary:
Phone number: 503-286-3681	
5. Other DEQ Permits	**6. Permit Action**
NPDES No. 101642	___ New permit
	X Renewal of an existing permit without changes
	___ Renewal of an existing permit with changes
	___ Modification of existing permit

7. Signature

I hereby apply for permission to discharge air contaminants in the State of Oregon, as stated or described in this application, and certify that the information contained in this application and the schedules and exhibits appended hereto, are true and correct to the best of my knowledge and belief.

Amos S. Kamerer	Plant Manager # 503-286-3681
Name of official (Printed or Typed)	Title of official and phone number
	June 27, 2002
Signature of official	Date

THE APPLICATION FEE INFORMATION IS SHOWN ON THE NEXT PAGE. SUBMIT TWO COPIES OF THE COMPLETED APPLICATION TO THE DEPARTMENT BUSINESS OFFICE ALONG WITH THE FEES. MAKE CHECKS PAYABLE TO DEQ.

Oregon Department of Environmental Quality
Business Office
811 SW Sixth Avenue
Portland, OR 97204

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

June 5, 2002

Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon 97210-3663

Re: Renewal of Air Contaminant Discharge Permit
ACDP # 26-2930

~~Your Air Contaminant Discharge Permit~~ for the subject plant will soon expire. Application for renewal of this permit is due by July 1, 2002.

Please complete the enclosed forms, adding additional information as necessary. Use your highest estimated production rate over the next five years in your calculations. Complete and sign form AQ101. Complete all additional forms enclosed and provide the requested information as necessary. Return the original and *one copy* of all application documents with the invoice and the fees.

Please remember that failure to apply for renewal prior to the expiration date of the permit will result in operating without a permit, for which civil penalties may be levied. Call us if you need assistance. Technical questions concerning your permit should be directed to Rose Lim at (503) 229-6191. If you have questions on fees, name change, and other administrative items please contact me at (503) 229-5582.

Sincerely,

Catherine Blaine

Catherine Blaine
Air Quality Permit Coordinator
Northwest Region

Enclosures

Cc: RSL/NWR

FAX: J. Dietz
T. Self
M. Cilley
5 Pages
Ames

RECEIVED
JUN 7 2002
KOPPERS INDS, INC.
PORTLAND OR

DEQ-1

ADMINISTATIVE INFORMATION **FORM AQ101 INSTRUCTIONS**

This form should be submitted with *all* Air Contaminant Discharge Permit (ACDP) applications. The applicant must submit TWO copies of this and all other required permit forms, with all fees required, to the **DEQ Business Office, Oregon Department of Environmental Quality, 811 SW 6th Avenue, Portland, Oregon 97204-1390.**

1. **Company**: Enter the legal name of the company as it is registered with the State of Oregon Corporations Division and mailing address.

2. **Facility Location**: Enter the common name of the facility and address if different from the information provided in question 1. If the information is the same, enter "same".

   - Provide the location (i.e., the street address) for the facility. If the facility is not located on a street, provide other directional information such as nearby cross streets (i.e., northwest of Third Avenue at Howard Street). If the facility is located in an industrial park, provide the name and address of the park.
   - Provide the city name, county, and zip code. If the facility is located in an unincorporated area of a county, enter "unincorporated" and identify the nearest incorporated municipality.

3. **Site Contact Person:** Provide the following information about the individual who should be contacted regarding this permit application.

   - Enter the name of the individual
   - Enter the title of the individual.
   - Enter the area code and telephone number of the individual.

4. **Standard Industrial Classification (SIC) Code:**

   - Enter the appropriate SIC(s) for the facility. There could be more than one primary SIC. A secondary SIC would be for other supporting activities at the facility, such as a steam process boiler.
   - If this facility is owned and/or operated by a governmental entity, specify the type of entity (e.g., city, county, state, federal, tribal) and the relationship of that entity to the facility (e.g., "owner," "operator," "owner and operator").

5. **Other DEQ permits:** Identify any DEQ solid waste, stormwater, water, and hazardous waste permits issued to the facility (e.g., National Pollution Discharge Elimination System [NPDES] Waste Discharge Permit 100797, etc).

6. **Permit Action:** Put an X for the appropriate permit action for this application. If this is a renewal of an existing permit and there are no changes to the permit (i.e., changes to equipment or production rates), then the applicant just needs to submit form AQ101. If there are changes to the permit, then the applicant will need to submit any applicable forms to describe the changes.

7. **Signature:** The ACDP application must be signed. The application should be signed by the official responsible for the facility's compliance with air quality regulations and knowledgeable of the contents of this application. The official might be the owner, the plant manager, the head of environmental affairs, etc.

FORM AQ101
ANSWER SHEET

ADMINISTRATIVE INFORMATION

FOR DEQ USE ONLY	
Permit Number: *##	Type of Application:
Application No.:	EXT RNW x MOD
Date Received:	NEW SM
Regional Office:	Check No. Amount $

1. Company	2. Facility Location
Legal Name:	Name:
Mailing Address:	Street Address:
City, State, Zip Code:	City, County, Zip Code:
3. Site Contact Person	**4. Standard Industrial Classification Code(s)**
Name:	Primary:
Title:	Secondary:
Phone number:	
5. Other DEQ Permits	**6. Permit Action**
	___ New permit
	___ Renewal of an existing permit without changes
	___ Renewal of an existing permit with changes
	___ Modification of existing permit

7. Signature

I hereby apply for permission to discharge air contaminants in the State of Oregon, as stated or described in this application, and certify that the information contained in this application and the schedules and exhibits appended hereto, are true and correct to the best of my knowledge and belief.

Name of official (Printed or Typed)	Title of official and phone number
Signature of official	Date

THE APPLICATION FEE INFORMATION IS SHOWN ON THE NEXT PAGE. SUBMIT TWO COPIES OF THE COMPLETED APPLICATION TO THE DEPARTMENT BUSINESS OFFICE ALONG WITH THE FEES. MAKE CHECKS PAYABLE TO DEQ.

Oregon Department of Environmental Quality
Business Office
811 SW SIXTH AVENUE
Portland, OR 97204

Koppers019607

1. Provide a text description of the facility processes. In describing the facility, and in preparing the permit application the applicant should always remember that the permit should be written to cover the facility as it will operate for the future permit term. A permit term is five or ten years depending on the type of permit issued. Providing information on future operations now may prevent the need for the additional cost of permit modifications in the future. The applicant should provide the information requested below.

   - A description of the current processes that emit air pollutants;
   - The fuels used and products produced in these processes;
   - If this application is for a permit modification, a discussion of the proposed modification;
   - If this application is for a renewed ACDP, a description of any anticipated modifications to the facility's existing processes during the pending permit term that the ACDP will need to address; and
   - If this application is for an initial or renewed ACDP, a description of any anticipated construction at the facility during the pending permit term that the ACDP will need to address.

2. Attach a plot plan showing the location of all stacks and vents though which regulated pollutants are released to the atmosphere.

3. Attach process flow diagram, which shows the air pollutant emitting processes at the facility. The diagram should illustrate the following. The applicant should ask the DEQ permit writer about the level of detail that is required.

   - All regulated air pollutant-emitting devices and processes at the facility, labeled with the same identification numbers that the applicant assigned them in Form Series AQ200.
   - Flow routes of contaminated air from processes to emission control equipment and emission points.
   - All air pollution control devices at the facility, labeled with the same identification numbers that the applicant assigned them in Form Series AQ300.
   - The location of all stacks and vents through which regulated pollutants are released to the atmosphere.
   - Any materials handling activities that emit regulated pollutants (e.g., loading crushed rock, storage piles, etc.) not addressed in a Device/Process Form (series AQ200).
   - Any fuel storage and piping systems on the facility property.

4. Attach a city map or drawing showing the facility location, property lines and its relation to nearby (i.e., within 1 mile) sensitive receptors such as residential areas, hospitals, schools, etc. If the facility is located in a rural area, the applicant should note distances on approaching roads and also mark the location of landmarks.

Koppers019608

FACILITY DESCRIPTION

FORM AQ102
ANSWER SHEET

Facility Name: _____ Permit Number: _____

1. Description of facility and processes:

3. Attach plot plan.

4. Attach process flow diagram.

5. Attach a city map or drawing showing the facility location.

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

March 10, 1999

VIA FACSIMILE (503-229-5265) AND UPS NEXT DAY AIR

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
Public Notice-Comments
Proposed Air Permit Application No. 26-2930
Multnomah County

Dear Ms. Amidon:

Koppers Industries, Inc. (KII) respectively submits the following comments/clarifications for the proposed air contaminant discharge permit for the Portland Terminal.

KII proposed a phased approach to modifying conditions at the Portland Terminal. As part of the application process, calculated emissions were submitted for existing, Phase I and Phase II conditions. KII intends only to proceed with Phase II if business conditions require an additional storage tank (T-210). If this tank is required then KII will install a fume combustion system.

The Portland Terminal facility presently consists of the following units:

1. 21MM BTU Atlas Boiler
2. 8MM BTU Hot oil heater
3. Fume Recovery *System*
4. Tanks 33 and 67

The proposed system in Phase I will consist of:

1. 21MM BTU Atlas Boiler
2. 10MM BTU hot oil heater(new)
3. *8 MM BTU hot oil heater*
4. *Fume Recovery system*

UPS Next Day Air®
UPS Worldwide Express
Shipping Document

See instructions on back. Call 1-800-PICK-UPS (800-742-5877) for additional information.

TRACKING NUMBER: N194 350 101 4

1 SHIPMENT FROM

SHIPPER'S UPS ACCOUNT NO.: UPS SHIPPER NO. / UPS BILLING NO.: 3207036605 — FOR UPS USE: 183X82

REFERENCE NUMBER

NAME: Traci I. Self — TELEPHONE: 412/227-2883

COMPANY: KOPPERS INDUSTRIES

STREET ADDRESS: 436 7TH AVE

CITY AND STATE: PITTSBURGH PA — ZIP CODE: 152191800

PLEASE PRESS HARD
YOU ARE MAKING 3 COPIES

2 EXTREMELY URGENT DELIVERY TO

NAME: Kathy Amidon — TELEPHONE: 503/229-5263

COMPANY: Northwest Region Oregon Dept. of Environmental Quality

STREET ADDRESS: 2020 SW Fourth Avenue, Suite 400 — DEPT./FLOOR:

CITY AND STATE (INCLUDE COUNTRY IF INTERNATIONAL): Portland, OR — ZIP CODE: 97201

3 WEIGHT AND ZONE

WEIGHT ENTER "LTR" IF LETTER	DIMENSIONAL WEIGHT If Applicable	ZONE
LTR		108

SHIPPER'S COPY

4 TYPE OF SERVICE

- [X] NEXT DAY AIR
- [ ] WORLDWIDE EXPRESS (INTERNATIONAL)
- FOR WORLDWIDE EXPRESS SHIPMENTS Mark an "X" in this box if shipment only contains documents of no commercial value. [ ] DOCUMENTS ONLY

CHARGES: $

5 OPTIONAL SERVICES

- [ ] SATURDAY PICKUP See instructions.
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- [ ] DECLARED VALUE Contents are automatically protected up to $100. For declared value over $100, see instructions. $ AMOUNT
- [ ] C.O.D. If C.O.D., enter amount to be collected and attach completed UPS C.O.D. tag to package. $ AMOUNT

6 ADDITIONAL HANDLING CHARGE

- [ ] An Additional Handling Charge applies for certain items. See instructions.

TOTAL CHARGES: $

7 METHOD OF PAYMENT

- [X] BILL SHIPPER
- BILL RECEIVER [ ] — BILL THIRD PARTY [ ] — NEXT DAY AIR ONLY — RECORD ACCOUNT NO. IN SECTION 8
- CREDIT CARD [ ] — American Express, Diner's Club, MasterCard, Visa
- CHECK [ ]
- UPS USE (CASH) [ ]

8 RECEIVER'S / THIRD PARTY'S UPS ACCT. NO. OR MAJOR CREDIT CARD NO. — EXPIRATION DATE

THIRD PARTY'S COMPANY NAME

STREET ADDRESS

CITY AND STATE — ZIP CODE

9 SHIPPER'S SIGNATURE X Marie D'Angelo — DATE OF SHIPMENT 3/10/99

Unless a greater value is declared in writing on this receipt, the shipper hereby declares and agrees that the released value of each package covered by this receipt is $100, which is a reasonable value under the circumstances surrounding the transportation. The rules relating to liability established by the Warsaw Convention and any amendments thereto shall apply to the international carriage of any shipment hereunder insofar as the same is governed thereby. In addition, the maximum value or declared value per package is $50,000 and the maximum carrier liability per package is $50,000. Claims not made to the carrier within 9 months of the scheduled delivery date are waived. The carrier shall not be liable for any special, incidental, or consequential damages. The entry of a C.O.D. amount is not a declaration of value. Customer's check accepted at shipper's risk unless otherwise noted on C.O.D. tag.

Koppers019611

UPS WORLDWIDE EXPRESS TERMS AND CONDITIONS

United Parcel Service through its affiliates (the "carrier") is engaged in the international transportation of small packages in UPS Worldwide Express. Each package shall be considered a separate and distinct shipment.

Commodities Handled and Restrictions upon Service

The carrier offers transportation of general commodities, as usually defined, subject to the following restrictions:

(a) No service shall be rendered in the transportation of articles of unusual value. The maximum value or declared value for an international service package is $50,000 U.S. and the maximum carrier liability is $50,000 U.S. except for packages containing jewelry (other than costume jewelry) in which case the maximum value or declared value is $500 U.S. per package and the maximum carrier liability per package is $500 U.S.

(b) Refer to the applicable service guide for weight and size restrictions.

(c) No service shall be rendered in the transportation of any of the prohibited articles listed in the applicable service guide.

(d) The carrier does not provide a protective service for the transportation of perishable commodities or of commodities requiring protection from heat or cold. Such commodities will be accepted for transportation solely at the shipper's risk for damage occasioned by exposure to heat or cold.

Prohibited by Law

No service shall be rendered by the carrier in the transportation of any shipment which is prohibited by law or regulation of any federal, state, provincial, or local government in the origin or destination countries.

Right of Inspection

The carrier reserves the right to open and inspect any package tendered to it for transportation.

Refusal of Packages

The carrier reserves the right to refuse any package which by reason of the dangerous or any other character of its contents is liable, in the judgement of the carrier, to soil, taint, or otherwise damage other merchandise or equipment, or which is economically or operationally impracticable to transport, or which is improperly packed or wrapped.

Packages must be so packed or wrapped as to pass the tests set forth in National Safe Transit Project 1-A.

Services Not Provided

C.O.D., Call Tag, and Delivery Confirmation services are not provided for international shipments.

Provisions for Customs Clearance

The shipper must provide required documentation for customs clearance. By providing required documentation, the shipper certifies that all statements and information relating to exportation and importation are true and correct. Furthermore, the shipper understands that civil and criminal penalties, including forfeiture and sale may be imposed for making false or fraudulent statements, or for the violation of U.S. laws on exportation (see 13 U.S.C. Section 305, 22 U.S.C. Section 401, 18 U.S.C. Section 1001, and 50 U.S.C. App. 2410).

When a shipment is tendered to the carrier, the carrier is thereby appointed as the agent for performance of customs clearance, where allowed by law. The carrier is specified as the nominal consignee for the purpose of designating a customs broker to perform customs clearance. Local authorities may require documentation confirming that the carrier has been designated as the nominal consignee.

Customs penalties, storage charges, or other expenses incurred as a result of an action by Customs or failure by the shipper or consignee to provide proper documentation or to obtain a required license or permit will be charged to the consignee along with any applicable duty and tax. However, the shipper is liable for payment in the event of non-payment by the consignee. The carrier provides brokerage service at no additional charge for routine customs clearance of Express and Expedited shipments. Additional charges may apply for complex customs clearance procedures which include, but are not limited to, the following:

- Clearance procedures involving a government agency other than Customs
- Customs Bonds
- Drawbacks
- Formal entries involving more than five tariff lines
- Live Entries
- Marking Attendance
- Temporary Import Bonds (T.I.B.)

Correction of Wrong Address

If the carrier is unable to deliver any package because of an incorrect address, the carrier will refer to the telephone directory and make every other reasonable effort to secure the correct address. If the correct address is secured and found to be in the same destination country, the shipper will be notified of the correction, and an additional charge, as stated on the then current rate chart, will be assessed for delivery or attempted delivery to the correct address.

Postal Code and Telephone Number

The consignee's postal code, telephone number, and contact name are essential information. To ensure prompt delivery, always include postal code, telephone number, and contact name on the UPS Air Shipping Document.

Delivery Attempts

If the carrier is unable to make delivery of a shipment, a non-delivery notice will be left at the consignee's address stating that delivery has been attempted. Thereafter, a second, and if necessary, a third attempt to deliver will be made without additional charge.

Interruption of Service

The carrier shall not be liable for any interruption of delivery service due to a cause beyond the carrier's control, or to strikes, lockouts, or labor disputes.

Return of Undeliverable Packages

Air shipments refused by consignees, or which for any other reason cannot be delivered, will be held and the shipper will be contacted for further instructions. The shipper will be responsible for payment of all other charges including, but not limited to, forwarding, disposal, or return air transportation charges, as well as any duty and tax if applicable.

Rates

See the applicable rate chart in effect at the time of shipping for rates. Transportation charges, except the charge for UPS Letters, are based on the gross weight of the shipment or the dimensional (volumetric) weight of the shipment, whichever is greater. Dimensional weight is based on the current International Air Transport Association (IATA) volumetric standard, which is subject to change without notice. When the dimensional weight of a shipment exceeds the actual weight, the shipment must be recorded on a UPS Waybill. Fractions of a pound will be increased to the next full pound.

Payment for Service

The carrier's credit terms require payment of all charges within seven (7) days after receipt of carrier's bill. When using a UPS Air Shipping Document, all UPS Worldwide Express shipments are prepaid and all charges must be paid by the shipper.

Worldwide Express Service Guarantee

The carrier guarantees on-schedule delivery of UPS Worldwide Express Service shipments to specific locations. In the event the carrier fails to complete delivery or attempt delivery within the carrier's time commitment, the carrier, at the carrier's option, will credit or refund the shipping charges to the payor upon request, subject to the following conditions:

(a) The carrier's guaranteed delivery schedule has been obtained by contacting the carrier's Customer Service office.

(b) The package bears a properly completed UPS Air Shipping Document showing the consignee's correct name, deliverable address, and postal code.

(c) The shipment is tendered to the carrier during the carrier's published business hours.

(d) All applicable documentation required by the origin and/or destination country is completed and included with the shipments.

(e) The carrier is notified in writing or by telephone of a service failure within fifteen (15) calendar days from the date of scheduled delivery and is advised of the consignee's name and address, date of shipment, package weight, and the UPS Tracking Number.

The guarantee does not apply to shipments which are delayed due to causes beyond the carrier's control including, but not limited to the following: The unavailability or refusal of a person to accept delivery of the shipment, acts of God, public authorities acting with actual or apparent authority on the premises, acts or omissions of Customs or similar authorities, failure by the shipper or consignee to provide proper documentation, riots, strikes or other labor disputes, civil commotions, disruptions in air or ground transportation networks, such as weather phenomena, and natural disasters.

The carrier provides optional Saturday delivery to locations in Canada which are specified in the UPS guide for service to Canada. The shipment must be recorded on a UPS Waybill to receive Saturday delivery.

Responsibility for Loss or Damage

Unless a greater value for insurance is declared in writing in the space provided on the UPS Air Shipping Document, the shipper declares the released value of each shipment to be no greater than $100 U.S. For each $100 U.S. or fraction thereof of declared value for insurance per shipment in excess of $100 U.S., an additional charge, as stated on the rate chart in effect at the time of shipping, will be assessed. Liability for loss or damage is governed by these Terms and Conditions and shall be limited to proven damages up to an amount not exceeding $100 U.S. per shipment unless a higher value has been declared by the shipper. However, the rules relating to liability established by the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw, Poland on October 12, 1929, and any amendments thereto shall apply to the international carriage of any shipment hereunder insofar as the same is governed thereby. Except if otherwise directed by the shipper, the carrier will remit excess valuation charges to an insurance company or companies as a premium for shippers' interest cargo insurance for the shipper's account and on its behalf. When the carrier does so, claims for loss or damage to the shipper's property will be filed and settled by the carrier on behalf of the applicable insurance company. Shippers' Interest Cargo Policies are available for inspection at the office of the carrier. Claims not made within six (6) months after delivery of the package, or in the case of non-delivery, within six (6) months after a reasonable time for delivery has elapsed, shall be deemed waived. The carrier shall not be liable for any special, incidental, or consequential damages.

All shipments are subject to the terms and conditions contained in the UPS tariff which is maintained at local UPS offices.

THE RULES RELATING TO LIABILITY ESTABLISHED BY THE WARSAW CONVENTION AND ANY AMENDMENTS THERETO SHALL APPLY TO THE INTERNATIONAL CARRIAGE OF ANY SHIPMENT HEREUNDER INSOFAR AS THE SAME IS GOVERNED THEREBY.

Koppers019612

5. *Tank 200 (new), T-33, T-67*

Phase II- implemented based on business conditions will consist of in addition to the units listed for Phase I:

6. Tank 210 (new)
7. Fume combustion system

Public Notice

Special Permit Conditions:

1. The 8MM Btu/hour heater should be a 10MM Btu/hour heater.
2. KII requests a permit condition stating that Phase II of the project may be implemented based on business conditions. If Phase II is implemented then the fume combustion system may be installed.

Air Contaminant Discharge Permit Application Review Report:

General Background Information- Page 1 of 4

Paragraph 3. -The statement that " gaseous emissions from the tanks will be ducted to the hot oil heater for incineration. Installation of a heated pipeline and two liquid pitch storage tanks is planned within the next two years" is incorrect. The sentence should read "*gaseous emissions from the tanks will be ducted to the fume recovery system. Installation of a heated pipeline and a liquid pitch storage tank is planned within the next two years. "*

Page 2 of 4 Number 5-Air Contaminant sources at the facility for the coming permit period are:

Koppers Industries, Inc. requests the table be amended to reflect that the boilers and both heaters are capable of both oil and gas firing.

The production rate of the pitch/oil transfer system should be 150,000 ton/yr. instead of 150,000 gal/yr.

The fume recovery system is presently in operation and will continue to operate. It should be added to the table.

The table has been modified to incorporate the requested changes described above.

Equipment	MFG/Model	Capacity/ Prod. Rate	SCC*	Installed/modified
Oil/gas-fired boiler	N. American	21 MM Btu/hr	3-06-001-03	1965
Oil/Gas-fired heater	N. American	8 MM BTU/hr	3-06-001-02	1990
Oil/Gas-fired heater	N. American	10 MM Btu/hr		1999
Pitch/oil transfer System	N/A	150,000 ton/yr.		1965 inst. 1999 modified
Fume recovery system	N/A	150,000 ton/yr.		1987

Hazardous Air Pollutants (HAPS)- Page 2 of 4

Number 6, Fourth sentence states "The current fume recovery system will be changed to a fume combustion system by feeding the HAP emissions collected by the fume recovery system through the facility's boiler for incineration." The sentence should read "If business conditions warrant implementation of Phase II, the current fume recovery system may be changed to a fume combustion system by feeding the emissions collected through the fume combustion unit."

Proposed Plant Site Emission Limit- Page 3 of 4

Number 10. Reads " throughput of pencil pitch is expected to be 70,000 gallons per year, and a maximum of 100 gallons per hour." The correct statement is "Throughput of pitch is expected to be 150,000 tons per year, and a maximum of 562 tons per hour."

Plant Site Emission Detail Sheet

Material Transfer System reads in column labeled fuel usage 70 Thou. Gallons/year and 100 tons. /hour.

Correct material transfer system fuel usage should be 150,000-tons/ year and 562 ton/hr.

Page 4 of 4

Additional requirements

Number 14. Reads: Special Conditions contained in the permit include the requirement to notify the Department upon installation of the 8MM Btu/hr heater, and to make a response to all complainants.

KII requests the following correction:

14. Special conditions contained in the permit include the requirement to notify the Department upon installation of the 10 MM Btu/hr, heater, and to make a response to all complainants.

Air contaminant Discharge Permit

Page 1 of 7:

Type of Facility

Standard Industry code for the facility is 2865 and not 4961 as listed.

The boiler at the facility is a 21MM Btu/hour unit as listed in the above table. KII requests the addition of the of the following units to the list of "Sources permitted to Discharge Air Contaminants":

1. **21MM BTU Atlas Boiler**
2. **10MM BTU hot oil heater(new)**
3. ***8 MM BTU hot oil heater***
4. ***Fume Recovery system***
5. ***Tank 200 (new), T-33, T-67***
6. ***Tank 210(new (if required)***
7. ***Fume Combustion System (if required)***

Reporting Requirements (Page 4, Item 16:)

KII requests that report submittal be made the Department by March 1 of each year for the preceding calendar year. KII requests the additional time in order to submit a thorough report that contains the information requested in item 16. The January 15 date would not allow sufficient time to gather and analyze data to include in a detailed report.

KII appreciates the opportunity to provide comment/clarification on the draft permit and public notice. Thank you for all of your hard work and review of the application and supplements.

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

cc: Amos Kamerer
Jim Dietz
Kevin Fitzgerald
Steve Smith
Bill Meisinger

File

TRANSMIT REPORT

1999,03-10 16:44
412 227 2423
KOPPERS ENVIRO/LEGAL

COM No.	REMOTE STATION	START TIME	DURATION	PAGES	RESULT	USER ID	REMARKS
005	915032295265	03-10 16:42	01'33	05/05	OK		

7498407164

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

March 10, 1999

VIA FACSIMILE (503-229-5265) AND UPS NEXT DAY AIR

Oregon Department Of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987

Post-It® Fax Note 7671 | Date 3/22/98 | # of pages 5
To Kathy Amidon | From Traci Self
Co./Dept. DEQ | Co. KII
Phone # | Phone #
Fax # 503-229-5265 | Fax #

Attention: Kathy Amidon

RE: Koppers Industries, Inc. – Portland Terminal
Public Notice Comments
Proposed Air Permit Application No. 26-2930
Multnomah County

Dear Ms. Amidon:

Koppers Industries, Inc. (KII) respectively submits the following comments/clarifications for the proposed air contaminant discharge permit for the Portland Terminal.

KII proposed a phased approach to modifying conditions at the Portland Terminal. As part of the application process, calculated emissions were submitted for existing, Phase I and Phase II conditions. KII intends only to proceed with Phase II if business conditions require an additional storage tank (T-210). If this tank is required then KII will install a fume combustion system.

The Portland Terminal facility presently consists of the following units:

1. 21MM BTU Atlas Boiler
2. 8MM BTU Hot oil heater

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

February 26, 1999

Koppers Industries, Inc.
Attn: Environmental Officer

7540 NW St Helens Road
Portland, OR 97210

RE: Year 2000 (Y2K) and Air Quality Permit Number 26-2930

As the year 2000 approaches, you have no doubt heard about the year 2000 computer date problem that may affect businesses around the world. The Department of Environmental Quality is in the process of reviewing all our systems and processes to ensure that the services we provide will not be interrupted. One vital lesson that we have learned in this process is that the ways we rely on technology are not always obvious. Most business processes rely on computers to some extent, and we are prepared to examine such systems for problems, but we have also learned that many automated processes from materials handling to process control to cameras and fax machines rely in embedded chips which may contain time and date functions.

Your business may receive a similar notice related to Year 2000 issues from other Department of Environmental Quality Programs or Oregon State agencies, however we believe this is an important issue. This letter specifically applies to your Department of Environmental Quality Air Quality Permit Number 26-2930.

As a regulator, and a steward of Oregon's environment, we are concerned that the year 2000 problem could have an adverse impact on permit holders, and through their failure, on the environment. If you haven't already done so, we strongly recommend that you perform a Y2K assessment of your business operations, and take appropriate steps to mitigate risks that you discover. We will not be asking permit holders to submit plans or certifications to DEQ, as we lack appropriate resources to evaluate your business process issues. However, I must advise you that permit requirements will be enforced. Foreseeable and preventable Year 2000 failures will not be acceptable reasons for permit violations.

In order to encourage prompt identification and timely correction of Y2K problems with computerized equipment, DEQ offers amnesty from penalty for those violations occurring during "Y2K" testing. In meeting the conditions for amnesty, the facility must design and conduct the tests well in advance of the problem date(s), conduct the test for the shortest possible time, and take immediate corrective action. DEQ has adopted, verbatim, EPA's Y2K Enforcement Policy which is available via internet at *www.epa.gov/year2000/finalpol.htm* or in hard copy at any DEQ office. Facilities conducting Y2K testing should submit written notification to DEQ in advance of when the tests will occur to demonstrate that the violations were caused by the testing.

I want to extend my sincerest wishes for success in your organization's Year 2000 efforts. Your business operations may depend upon it, as could the health of Oregon's environment. You may find additional information about our own efforts on our web site at www.deq.state.or.us (under "What's New"). You can follow links to several other sites. Please contact Ernie Weber at (503) 229-6765 or weber.ernie@deq.state.or.us if you have questions on this matter.

Sincerely,

Langdon Marsh
Director

cc: T. Self, K-1800

LM:RJW:j
LTR\AQ76847.DOC

RECEIVED
MAR - 1 1999
KOPPERS INDS, INC.
PORTLAND OR
DEQ-1

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

Via Fax and Regular Mail

January 21, 1999

Oregon Department Of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987

Attention: Kathy Amidon

Subject: Contaminant Discharge Permit No. 26-2930- Additional Information

Dear Ms. Amidon:

This letter is in response to our telephone conversation of January 20, 1999. During that conversation, you requested additional information regarding assumptions used in calculating Volatile Organic Compound (VOC) and Hazardous Air Pollutants (HAP).

The emissions inventory for Koppers Industries, Inc. Portland Plant was based on AP-42 methods for tanks and combustion units and a process design model used to calculate fume recovery system emissions called ChemCad. HAP emissions were calculated by speciating VOC emissions based on known liquid/vapor compositions.

For the actual case scenario, a plant throughput of 70,000 tons of pitch per year was assumed. The facility handles Pitch, P1/P13 distillate, and Heavy Oil. The operating hours were calculated for the fume recovery system based on the known pumping rates and throughputs. Under the actual scenario, the combustion units only use natural gas as a fuel.

For the potential case scenarios, the maximum plant design throughput of 150,000 tons of pitch per year was assumed. Three scenarios were considered. The first case assumed existing units remain. The second case, Phase I incorporates the installation of a new hot oil heater and pitch storage tank. The third case, Phase II, incorporates the installation of a second new pitch storage tank and upgrading the fume recovery system to a fume combustion system. The facility will only handle Pitch and Heavy Oil in all cases. The operating hours for the plant and all units are assumed to be equal to 8,760 hours per year. The combustion units may bum natural gas or diesel as a fuel, although diesel oil will be restricted to 12 week per year.

It is my understanding that with submission of these items a draft permit will be issued for public comment.

If you have any questions, please call me at 412-227-2883.

Sincerely,

Traci I. Self
Environmental Manager

CC: Amos Kamerer
Steve Smith
Bill Meisinger
Jim Dietz
Kevin Fitzgerald

TRANSMIT REPORT

1999.01-21 17:11
412 227 2423
KOPPERS ENVIRO/LEGAL

COM No.	REMOTE STATION	START TIME	DURATION	PAGES	RESULT	USER ID	REMARKS
658	915032295265	01-21 17:11	00'37	01/01	OK		

7498407164

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

Via Fax and Regular Mail

January 21, 1999

Oregon Department Of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987

Attention: Kathy Amidon

Subject: Contaminant Discharge Permit No. 26-2930- Additional Information

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KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

503-229-5265

December 22, 1998

Oregon Department Of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987

Attention: Kathy Amidon

Subject: Contaminant Discharge Permit No. 26-2930

Dear Ms. Amidon:

This letter is in response to our telephone conversation of December 8, 1998. During that conversation you informed me that additional information was required to continue processing the air contaminate discharge permit. You requested the following additional information:

1. A 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 201, including materials to be stored, for purpose of determining new source performance standards applicability (40 CFR 60,Kb).

It is my understanding that with submission of these items a draft permit will be issued for public comment, provided that the facility does not have potential to emit pollutants at or above Title V trigger levels.

If you have any questions, please call me at 412-227-2883.

Sincerely,

Traci I. Self
Environmental Manager

CC: Amos Kamerer
Steve Smith
Bill Meisinger
Jim Dietz
Kevin Fitzgerald

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

November 10, 1998

VIA UPS NEXT DAY AIR

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, with Amos Kamerer, on November 2, 1998, I am enclosing a revised emission estimate spreadsheet for Phase I. 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.

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 1 have been revised to reflect use of diesel fuel for a maximum period of 12 weeks.

Because of the variability of business projections and the uncertainty of obtaining a non-interruptible gas supply, Koppers Industries Inc. is requesting Oregon Department Of Environmental Quality (ODEQ) 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

UPS Next Day Air®
UPS Worldwide Express
Shipping Document

See instructions on back. Call 1-800-PICK-UPS (800-742-5877) for additional information.

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REFERENCE NUMBER

NAME: Traci I. Self — TELEPHONE: 412-227-2883

COMPANY: KOPPERS INDUSTRIES

STREET ADDRESS: 436 7TH AVE

CITY AND STATE: PITTSBURGH PA — ZIP CODE: 152191800

PLEASE PRESS HARD YOU ARE MAKING 3 COPIES

2 EXTREMELY URGENT DELIVERY TO

NAME: Kathy Amidon — TELEPHONE

COMPANY: Oregon Dept. of Environmental Quality - Northwest Region

STREET ADDRESS: 2020 SW Fourth Avenue, Suite 400 — DEPT./FLOOR

CITY AND STATE (INCLUDE COUNTRY IF INTERNATIONAL): Portland, OR — ZIP CODE: 97201

3 WEIGHT AND ZONE — WEIGHT (ENTER "LTR" IF LETTER): LTR — DIMENSIONAL WEIGHT (If Applicable) — ZONE: 108

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CHARGES

4 TYPE OF SERVICE — [X] NEXT DAY AIR — [ ] WORLDWIDE EXPRESS (INTERNATIONAL) — $

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[ ] SATURDAY PICKUP See instructions. — [ ] SATURDAY DELIVERY See instructions. — $

[ ] DECLARED VALUE Contents are automatically protected up to $100. For declared value over $100, see instructions. $ AMOUNT — $

[ ] C.O.D. If C.O.D., enter amount to be collected and attach completed UPS C.O.D. tag to package. $ AMOUNT — $

6 ADDITIONAL HANDLING CHARGE — [ ] An Additional Handling Charge applies for certain items. See instructions. — $

TOTAL CHARGES — $

7 METHOD OF PAYMENT — [X] BILL SHIPPER — [ ] BILL RECEIVER — [ ] BILL THIRD PARTY (NEXT DAY AIR ONLY; RECORD ACCOUNT NO. IN SECTION 8) — [ ] CREDIT CARD American Express Diner's Club MasterCard Visa — [ ] CHECK — [ ] UPS USE (CASH)

8 RECEIVER'S / THIRD PARTY'S UPS ACCT. NO. OR MAJOR CREDIT CARD NO. — EXPIRATION DATE /

THIRD PARTY'S COMPANY NAME

STREET ADDRESS

CITY AND STATE — ZIP CODE

9 SHIPPER'S SIGNATURE: [signature] — DATE OF SHIPMENT: 11/10/98

Unless a greater value is declared in writing on this receipt, the shipper hereby declares and agrees that the released value of each package covered by this receipt is $100, which is a reasonable value under the circumstances surrounding the transportation. The rules relating to liability established by the Warsaw Convention and any amendments thereto shall apply to the international carriage of any shipment hereunder insofar as the same is governed thereby. Maximum per package is $50,000. Claims not made to the carrier within 9 months of shipment date are waived. The carrier shall not be liable for any special, incidental, or consequential damages. The entry of a C.O.D. amount is not a declaration of value. Customer's check accepted at shipper's risk unless otherwise noted on C.O.D. tag.

UPS WORLDWIDE EXPRESS TERMS AND CONDITIONS

United Parcel Service through its affiliates (the "carrier") is engaged in the international transportation of small packages in UPS Worldwide Express. Each package shall be considered a separate and distinct shipment.

Commodities Handled and Restrictions upon Service

The carrier offers transportation of general commodities, as usually defined, subject to the following restrictions.

(a) No service shall be rendered in the transportation of articles of unusual value. The maximum value or declared value for an international service package is $50,000 U.S. and the maximum carrier liability is $50,000 U.S. except for packages containing jewelry (other than costume jewelry) in which case the maximum value or declared value is $500 U.S. per package and the maximum carrier liability per package is $500 U.S.

(b) Refer to the applicable service guide for weight and size restrictions.

(c) No service shall be rendered in the transportation of any of the prohibited articles listed in the applicable service guide.

(d) The carrier does not provide a protective service for the transportation of perishable commodities or of commodities requiring protection from heat or cold. Such commodities will be accepted for transportation solely at the shipper's risk for damage occasioned by exposure to heat or cold.

Prohibited by Law

No service shall be rendered by the carrier in the transportation of any shipment which is prohibited by law or regulation of any federal, state, provincial, or local government in the origin or destination countries.

Right of Inspection

The carrier reserves the right to open and inspect any package tendered to it for transportation.

Refusal of Packages

The carrier reserves the right to refuse any package which by reason of the dangerous or any other character of its contents is liable, in the judgement of the carrier, to soil, taint, or otherwise damage other merchandise or equipment, or which is economically or operationally impracticable to transport, or which is improperly packed or wrapped.

Packages must be so packed or wrapped as to pass the tests set forth in National Safe Transit Project 1-A.

Services Not Provided

C.O.D., Call Tag, and Delivery Confirmation services are not provided for international shipments.

Provisions for Customs Clearance

The shipper must provide required documentation for customs clearance. By providing required documentation, the shipper certifies that all statements and information relating to exportation and importation are true and correct. Furthermore, the shipper understands that civil and criminal penalties, including forfeiture and sale may be imposed for making false or fraudulent statements, or for the violation of U.S. laws on exportation (see 13 U.S.C. Section 305, 22 U.S.C. Section 401, 18 U.S.C. Section 1001, and 50 U.S.C. App. 2410).

When a shipment is tendered to the carrier, the carrier is thereby appointed as the agent for performance of customs clearance, where allowed by law. The carrier is specified as the nominal consignee for the purpose of designating a customs broker to perform customs clearance. Local authorities may require documentation confirming that the carrier has been designated as the nominal consignee.

Customs penalties, storage charges, or other expenses incurred as a result of an action by Customs or failure by the shipper or consignee to provide proper documentation or to obtain a required license or permit will be charged to the consignee along with any applicable duty and tax. However, the shipper is liable for payment in the event of non-payment by the consignee. The carrier provides brokerage service at no additional charge for routine customs clearance of Express and Expedited shipments. Additional charges may apply for complex customs clearance procedures which include, but are not limited to, the following:

- Clearance procedures involving a government agency other than Customs
- Customs Bonds
- Drawbacks
- Formal entries involving more than five tariff lines
- Live Entries
- Marking Attendance
- Temporary Import Bonds (T.I.B.)

Correction of Wrong Address

If the carrier is unable to deliver any package because of an incorrect address, the carrier will refer to the telephone directory and make every other reasonable effort to secure the correct address. If the correct address is secured and found to be in the same destination country, the shipper will be notified of the correction, and an additional charge, as stated on the then current rate chart, will be assessed for delivery or attempted delivery to the correct address.

Postal Code and Telephone Number

The consignee's postal code, telephone number, and contact name are essential information. To ensure prompt delivery, always include postal code, telephone number, and contact name on the UPS Air Shipping Document.

Delivery Attempts

If the carrier is unable to make delivery of a shipment, a non-delivery notice will be left at the consignee's address stating that delivery has been attempted. Thereafter, a second, and if necessary, a third attempt to deliver will be made without additional charge.

Interruption of Service

The carrier shall not be liable for any interruption of delivery service due to a cause beyond the carrier's control, or to strikes, lockouts, or labor disputes.

Return of Undeliverable Packages

Air shipments refused by consignees, or which for any other reason cannot be delivered, will be held and the shipper will be contacted for further instructions. The shipper will be responsible for payment of all [illegible] charges including, but not limited to, forwarding, disposal, or return transportation charges [illegible] duty and tax, if applicable.

Rates

See the applicable rate chart in effect at the time of shipping for rates. Transportation charges, except the charge for UPS Letters, are based on the gross weight of the shipment or the dimensional (volumetric) weight of the shipment, whichever is greater. Dimensional weight is based on the current International [illegible] Transport Association (IATA) volumetric standard, which is subject to change without notice. When the dimensional weight of a [illegible] actual weight the shipment must be recorded on a UPS Waybill. Fractions of a pound will be increased to the [illegible]

Payment for Service

[illegible] (7) days after receipt of carrier's bill. When using a UPS Air Shipping Document, all UPS Worldwide Express [illegible] must be paid by the shipper.

Worldwide Express Service Guarantee

The carrier guarantees on-schedule delivery of UPS Worldwide Express Service shipments to specific locations. In the event the carrier fails to complete delivery or attempt delivery within the [illegible] the carrier's option, will credit or refund the shipping charges to the payer upon request, subject to the following [illegible]:

(a) The carrier's guaranteed delivery schedule has been obtained by contacting the carrier's Customer Service office.

(b) The package bears a properly completed UPS Air Shipping Document showing the consignee's correct name, deliverable address and postal code.

(c) The shipment is tendered to the carrier during the carrier's published business hours.

(d) A [illegible] for the origin and/or destination country is completed and included with the shipments.

(e) The carrier is notified in writing of [illegible] service failure within fifteen (15) calendar days from the date of scheduled delivery and is advised of the consignee's name [illegible] address, date of shipment, package weight, and the UPS Tracking Number.

The guarantee does not apply to shipments which are delayed due to causes beyond the carrier's control including, but not limited to the following: The unavailability or refusal of a person to accept delivery of the shipment, acts of God, public authorities acting with actual or apparent authority on the premises, acts or omissions of Customs or similar authorities, failure by the shipper or consignee to provide proper documentation, riots, strikes or other labor disputes, civil commotions, disruptions in air or ground transportation networks, such as weather phenomena and natural disasters.

The carrier provides optional Saturday delivery to [illegible] in Canada which are specified in the UPS guide for service to Canada. The shipment must be recorded on a UPS Waybill to receive Saturday delivery.

Responsibility for Loss or Damage

Unless a greater value for insurance is declared in writing in the space provided on the UPS Air Shipping Document, the shipper declares the released value of each shipment to be no greater than $100 U.S. For each $100 U.S. or fraction thereof of declared value for insurance per shipment in excess of $100 U.S., an additional charge, as stated on the rate chart in effect at the time of shipping, will be assessed. Liability for loss or damage is governed by these Terms and Conditions and shall be limited to proven damages up to an amount not exceeding $100 U.S. per shipment unless a higher value has been declared by the shipper. However, the rules relating to liability established by the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw, Poland on October 12, 1929, and any amendments thereto shall apply to the international carriage of any shipment hereunder insofar as the same is governed thereby. Except if otherwise directed by the shipper, the carrier will remit excess valuation charges to an insurance company or companies as a premium for shipper's interest cargo insurance for the shipper's account and on its behalf. When the carrier does so, claims for loss or damage to the shipper's property will be filed and settled by the carrier on behalf of the applicable insurance company. Shipper's Interest Cargo Policies are available for inspection at the office of the carrier. Claims not made within six (6) months after delivery of the package, or in the case of non-delivery, within six (6) months after a reasonable time for delivery has elapsed, shall be deemed waived. The carrier shall not be liable for any special, incidental, or consequential damages.

All shipments are subject to the terms and conditions contained in the UPS tariff which is maintained at local UPS offices.

THE RULES RELATING TO LIABILITY ESTABLISHED BY THE WARSAW CONVENTION AND ANY AMENDMENTS THERETO SHALL APPLY TO THE INTERNATIONAL CARRIAGE OF ANY SHIPMENT HEREUNDER INSOFAR AS THE SAME IS GOVERNED THEREBY

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	21.51						
Tank 33		Heavy Oil			0.12	0.005						
Tank 67		P1/P13 Distillate			0.85	0.035						
Loading Tank 67 to Rail		P1/P13 Distillate			2.46	0.004						
Fugitives		NA			0.98	0.568						
Plant Total			**4.22**	**16.49**	**16.98**	**22.56**	**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, T-200, railcar loading and tank car loading.
[3] Hourly and annual VOC emissions from the fume recovery system were calculated using ChemCAD.

Koppers019626

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	21.51						
Tank 33		Heavy Oil			0.12	0.005						
Tank 67		Heavy Oil			0.04	0.002						
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**	**13.74**	**22.64**	**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] Emissions from T-200 are included in the fume recovery system's emissions.

Koppers019627

Maximum Potential Emissions from Combined Natural Gas/Fuel Oil Combustion, Koppers Industries, Inc., Portland Tar Plant

Unit ID	Heat Input (MM BTU/Hr)	Fuel Used	Hourly Potential Fuel Use (Mgal/hr) (mmcf/hr)	Annual Potential* Fuel Use (Mgal/yr) (mmcf/yr)	*Emission Factor* NOx *(lb/Mgal) (lb/mmcf)*	NOx (lb/hr)	NOx (tpy)	*Emission Factor* VOC *(lb/Mgal) (lb/mmcf)*	VOC (lb/hr)	VOC (tpy)	*Emission Factor* CO *(lb/Mgal) (lb/mmcf)*	CO (lb/hr)	CO (tpy)	*Emission Factor* SO2 *(lb/Mgal) (lb/mmcf)*	SO2 (lb/hr)	SO2 (tpy)	*Emission Factor* PM-10 *(lb/Mgal) (lb/mmcf)*	PM-10 (lb/hr)	PM-10 (tpy)
Atlas Boiler	21	Oil	0.15	302.40	*20.00*	3.00	3.02	*0.20*	0.03	0.03	*5.00*	0.75	0.76	*71.00*	10.65	10.74	*2.00*	0.30	0.30
		Gas	0.02	135.66	*140.00*	2.82	9.50	*2.78*	0.06	0.19	*35.00*	0.70	2.37	*3.80*	0.08	0.57	*6.30*	0.12	0.94
Hot Oil Heater	8.5	Oil	0.061	122.40	*20.00*	1.22	1.22	*0.20*	0.01	0.01	*5.00*	0.31	0.31	*71.00*	4.33	4.35	*2.00*	0.12	0.12
		Gas	0.01	54.91	*100.00*	0.81	2.75	*5.28*	0.04	0.14	*21.00*	0.17	0.58	*3.80*	0.03	0.26	*4.50*	0.04	0.31
New Hot Oil Heater	10	Oil	0.071	144.00	*20.00*	1.42	1.44	*0.20*	0.01	0.01	*5.00*	0.36	0.36	*71.00*	5.04	5.11	*2.00*	0.14	0.14
		Gas	0.01	64.60	*140.00*	1.34	4.52	*2.78*	0.03	0.09	*35.00*	0.34	1.13	*3.80*	0.04	0.23	*6.30*	0.06	0.38
Total							**22.451**			**0.481**			**5.503**			**21.257**			**2.191**

* Based on 2,016 hours/year of fuel oil combustion and 6744 hours/yr of natural gas combustion
Assumed higher heating value of #2 Fuel Oil = 140,000 BTU/gal
Higher Heating Value Natural Gas = 1044 BTU/cuft
Emission Factors are taken from the AP-42, Section 1.3, Jan., 1995
SO2 Emission Factor calculated by assuming 0.5% S in Oil
Calculation for criteria pollutants during oil combustion = (max input in mm BTU/hr) X (Criteria emission factor) X (8760 hr/yr) / (2000 lbs/ton * 140,000 BTU/Gal)
Calculation for criteria pollutants during natural gas combustion]= (max input in mm BTU/hr) X (Criteria emission factor) X (8760 hr/yr) / (2000 lbs/ton * 1044 BTU/SCF)
Assumed PM = PM-10

Koppers019628

Maximum Potential Emissions from Natural Gas Combustion, Koppers Industries, Inc., Portland Tar Plant

Unit ID	Heat Input (MM BTU/Hr)	Fuel Used	Hourly Potential Fuel Use (mmcf/hr)	Annual Potential* Fuel Use (mmcf/yr)	Emission Factor NOx (lb/mmcf)	NOx (lb/hr)	NOx (tpy)	Emission Factor VOC (lb/mmcf)	VOC (lb/hr)	VOC (tpy)	Emission Factor CO (lb/mmcf)	CO (lb/hr)	CO (tpy)	Emission Factor SO2 (lb/mmcf)	SO2 (lb/hr)	SO2 (tpy)	Emission Factor PM-10 (lb/mmcf)	PM-10 (lb/hr)	PM-10 (tpy)
Atlas Boiler	21	Gas	0.02	176.21	140.00	2.82	12.33	2.78	0.06	0.25	35.00	0.70	3.08	3.80	0.08	0.33	6.20	0.12	0.55
Hot Oil Heater	8.5	Gas	0.01	71.32	100.00	0.81	3.57	5.28	0.04	0.19	21.00	0.17	0.75	3.80	0.03	0.14	4.50	0.04	0.16
New Hot Oil Heater	10	Gas	0.01	83.91	140.00	1.34	5.87	2.78	0.03	0.12	35.00	0.34	1.47	3.80	0.04	0.16	6.20	0.06	0.26
Total				**331.437**			**21.774**			**0.550**			**5.301**			**0.630**			**0.967**

* Based on 8760 hrs/yr of operation
Higher Heating Value Natural Gas = 1044 BTU/cuft
Emission Factors are taken from the AP-42, Section 1.4, Jan., 1995
Assumed PM = PM-10
Calculation for criteria pollutants = (max input in mm BTU/hr) X (Criteria emission factor) X (8760 hr/yr) / (2000 lbs/ton * 1044 BTU/SCF)

Koppers019629

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

October 27, 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:

Attached are revised emission estimate spreadsheets, facility description and process flow diagram for Koppers Industries Inc. (KII) –Portland Terminal. There are four spreadsheets showing existing facility equipment and additional equipment that may be phased in over the next five years. The scenarios established for each spreadsheet are as follows:

1. **Actual Emission from Existing Units.**

2. **Maximum Potential Emissions from Existing Units.** Accounts for use of dual fuel for periods when natural gas is unavailable. The Portland terminal is presently using natural gas in the units and is operating under an interruptible contract.

3. **Maximum Potential Emissions Phase I** -consists of addition of new liquid pitch Tank 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.

4. **Maximum Potential Emissions, Phase II** - implemented based on business conditions. This phase if required, will consist of a second liquid pitch Tank 210 and a new Fume combustion system.

Because of the variability of business projections and the uncertainty of obtaining a non-interruptible gas supply, KII is requesting ODEQ permit the Portland facility based on the maximum potential emission calculations listed for Phase I.

As requested, KII has proposed draft permit conditions to incorporate addition of each phase based on business projections.

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 (3)

cc: Amos Kamerer
Jim Dietz
Kevin Fitzgerald
Steve Smith

UPS Next Day Air®
UPS Worldwide Expr
Shipping Document

See instructions on back. Call 1-800-PICK-UPS (800-742-5877) for additional information.

TRACKING NUMBER: N191 323 633 9

1 SHIPMENT FROM

SHIPPER'S UPS ACCOUNT NO.: UPS SHIPPER NO. / UPS BILLING NO.: 3207036605 — FOR UPS USE: 183X82

REFERENCE NUMBER

NAME: Traci I. Self — TELEPHONE: 412/227-2883

COMPANY: KOPPERS INDUSTRIES

STREET ADDRESS: 436 7TH AVE

CITY AND STATE: PITTSBURGH PA — ZIP CODE: 152191800

PLEASE PRESS HARD
YOU ARE MAKING 3 COPIES

2 EXTREMELY URGENT DELIVERY TO

NAME: Ms. Kathy Amidon — TELEPHONE:

COMPANY: Northwest Region
Oregon Dept. of Environmental Quality

STREET ADDRESS: 2020 SW Fourth Avenue, Suite 400 — DEPT./FLOOR:

CITY AND STATE (INCLUDE COUNTRY IF INTERNATIONAL): Portland, OR — ZIP CODE: 97201-4987

3 WEIGHT AND ZONE

WEIGHT ENTER "LTR" IF LETTER	DIMENSIONAL WEIGHT If Applicable	ZONE
LTR		08

SHIPPER'S COPY

4 TYPE OF SERVICE

- [X] NEXT DAY AIR
- [ ] WORLDWIDE EXPRESS (INTERNATIONAL)

FOR WORLDWIDE EXPRESS SHIPMENTS Mark an "X" in this box if shipment only contains documents of no commercial value. [ ] DOCUMENTS ONLY

5 OPTIONAL SERVICES

- [ ] SATURDAY PICKUP See instructions.
- [ ] SATURDAY DELIVERY See instructions.
- [ ] DECLARED VALUE Contents are automatically protected up to $100. For declared value over $100, see instructions. $ _____ AMOUNT
- [ ] C.O.D. If C.O.D., enter amount to be collected and attach completed UPS C.O.D. tag to package. $ _____ AMOUNT

6 ADDITIONAL HANDLING CHARGE

- [ ] An Additional Handling Charge applies for certain items. See instructions.

TOTAL CHARGES

CHARGES: $ / $ / $ / $ / $

7 METHOD OF PAYMENT

- [X] BILL SHIPPER
- BILL RECEIVER [ ] — NEXT DAY AIR ONLY
- BILL THIRD PARTY [ ] — NEXT DAY AIR ONLY
- CREDIT CARD [ ] — RECORD ACCOUNT NO. IN SECTION 8 — American Express, Diner's Club, MasterCard, Visa
- CHECK [ ]
- UPS USE (CASH) [ ]

8 RECEIVER'S / THIRD PARTY'S UPS ACCT. NO. OR MAJOR CREDIT CARD NO. — EXPIRATION DATE /

THIRD PARTY'S COMPANY NAME

STREET ADDRESS

CITY AND STATE — ZIP CODE

9 SHIPPER'S SIGNATURE Marie T. D'Angelo — DATE OF SHIPMENT 10/30/98

Unless a greater value is declared in writing on this receipt, the shipper hereby declares and agrees that the released value of each package covered by this receipt is $100, which is a reasonable value under the circumstances surrounding the transportation. The rules relating to liability established by the Warsaw Convention and any amendments thereto shall apply to the international carriage of any shipment hereunder insofar as the same is governed thereby. In addition, the maximum value or declared value per package is $50,000 and the maximum carrier liability per package is $50,000. Claims not made to the carrier within 9 months of the scheduled delivery date are waived. The carrier shall not be liable for any special, incidental, or consequential damages. The entry of a C.O.D. amount is not a declaration of value. Customer's check accepted at shipper's risk unless otherwise noted on C.O.D. tag.

Koppers019632

UPS WORLDWIDE EXPRESS TERMS AND CONDITIONS

United Parcel Service through its affiliates (the "c[illegible] engaged in the international transportation of small packages in UPS Worldwide Express. Each package shall be conside[illegible] rate and distinct shipment.

Commodities Handled and Restrictions upon Service

The carrier offers transportation of general commodities, as usually defined, subject to the following restrictions:

(a) No service shall be rendered in the transportation of articles of unusual value. The maximum value or declared value for an international service package is $50,000 U.S. and the maximum carrier liability is $50,000 U.S. except for packages containing jewelry (other than costume jewelry) in which case the maximum value or declared value is $500 U.S. per package and the maximum carrier liability per package is $500 U.S.

(b) Refer to the applicable service guide for weight and size restrictions.

(c) No service shall be rendered in the transportation of any of the prohibited articles listed in the applicable service guide.

(d) The carrier does not provide a protective service for the transportation of perishable commodities or of commodities requiring protection from heat or cold. Such commodities will be accepted for transportation solely at the shipper's risk for damage occasioned by exposure to heat or cold.

Prohibited by Law

No service shall be rendered by the carrier in the transportation of any shipment which is prohibited by law or regulation of any federal, state, provincial, or local government in the origin or destination countries.

Right of Inspection

The carrier reserves the right to open and inspect any package tendered to it for transportation.

Refusal of Packages

The carrier reserves the right to refuse any package which by reason of the dangerous or any other character of its contents is liable, in the judgement of the carrier, to soil, taint, or otherwise damage other merchandise or equipment, or which is economically or operationally impracticable to transport, or which is improperly packed or wrapped.

Packages must be so packed or wrapped as to pass the tests set forth in National Safe Transit Project 1-A.

Services Not Provided

C.O.D., Call Tag, and Delivery Confirmation services are not provided for international shipments.

Provisions for Customs Clearance

The shipper must provide required documentation for customs clearance. By providing required documentation, the shipper certifies that all statements and information relating to exportation and importation are true and correct. Furthermore, the shipper understands that civil and criminal penalties, including forfeiture and sale may be imposed for making false or fraudulent statements, or for the violation of U.S. laws on exportation (see 13 U.S.C. Section 305, 22 U.S.C. Section 401, 18 U.S.C. Section 1001, and 50 U.S.C. App. 2410).

When a shipment is tendered to the carrier, the carrier is thereby appointed as the agent for performance of customs clearance, where allowed by law. The carrier is specified as the nominal consignee for the purpose of designating a customs broker to perform customs clearance. Local authorities may require documentation confirming that the carrier has been designated as the nominal consignee.

Customs penalties, storage charges, or other expenses incurred as a result of an action by Customs or failure by the shipper or consignee to provide proper documentation or to obtain a required license or permit will be charged to the consignee along with any applicable duty and tax. However, the shipper is liable for payment in the event of non-payment by the consignee. The carrier provides brokerage service at no additional charge for routine customs clearance of Express and Expedited shipments. Additional charges may apply for complex customs clearance procedures which include, but are not limited to, the following:

- Clearance procedures involving a government agency other than Customs
- Customs Bonds
- Drawbacks
- Formal entries involving more than five tariff lines
- Live Entries
- Marking Attendance
- Temporary Import Bonds (T.I.B.)

Correction of Wrong Address

If the carrier is unable to deliver any package because of an incorrect address, the carrier will refer to the telephone directory and make every other reasonable effort to secure the correct address. If the correct address is secured and found to be in the same destination country, the shipper will be notified of the correction, and an additional charge, as stated on the then current rate chart, will be assessed for delivery or attempted delivery to the correct address.

Postal Code and Telephone Number.

The consignee's postal code, telephone number, and contact name are essential information. To ensure prompt delivery, always include postal code, telephone number, and contact name on the UPS Air Shipping Document.

Delivery Attempts

If the carrier is unable to make delivery of a shipment, a non-delivery notice will be left at the consignee's address stating that delivery has been attempted. Thereafter, a second, and if necessary a third attempt to deliver will be made without additional charge.

Interruption of Service

The carrier shall not be liable for any interruption of delivery service due to a cause beyond the carrier's control or to strikes, lockouts, or labor disputes.

Return of Undeliverable Packages

Air shipments refused by consignees, or which for any other reason cannot be delivered, will be held and the shipper will be contacted for further instructions. The shipper will be responsible for payment of all other charges, including but not limited to, forwarding, disposal, or return air transportation charges as well as any duty and tax, if applicable.

Rates

See the applicable rate chart in effect at the time of shipping for rates. Transportation charges, except the charge for UPS Letters, are based on the gross weight of the shipment or the dimensional (volumetric) weight of the shipment, whichever is greater. Dimensional weight is based on the current International Air Transport Association (IATA) volumetric standard, which is subject to change without notice. When the dimensional weight of a [illegible] the shipment must be recorded on a UPS Waybill. Fractions of a pound will be increased to the ne[illegible]

Payment for Service

The carrier's credit terms req[illegible] the receipt of carrier's bill. When using a UPS Air Shipping Document, all UPS Worldwide Ex[illegible] by the shipper.

Worldwide Express Service Guarantee

The carrier guarantees on-schedule delivery of UPS Worldwide Express Service shipments to specific locations. In the event the carrier fails to complete delivery or attempt delivery [illegible] credit or refund the shipping charges to the payer upon request, subject to the fo[illegible]

(a) The carrier's guaranteed delivery schedule has been [illegible] the carrier's Customer Service office.

(b) The package bears a properly completed UPS Air Shipping Document showing the consignee's correct name, deliverable address, and postal code.

(c) The shipment is tendered to the carrier [illegible] published business hours.

(d) All applicable documents [illegible] destination country is completed and included with the shipments.

(e) The carrier [illegible] days from the date of scheduled delivery and is advised of the [illegible] package weight, and the UPS Tracking Number.

The guarantee does not apply to shipments [illegible] beyond the carrier's control including, but not limited to the following: The unavailability or refusal of a person to accept delivery of the shipment, acts of God, public authorities acting with actual or apparent authority on the premises, [illegible] of Customs or similar authorities, failure by the shipper or consignee to provide proper documentation, [illegible] disruptions in air or ground transportation networks, such as weather phenomena and natural [illegible]

The carrier provides optional Saturday delivery to locations [illegible] UPS guide for service to Canada. The shipment must be recorded on a UPS Waybill to receive Saturday delivery.

Responsibility for Loss or Damage

Unless a greater value for insurance is declared in writing in the space provided on the UPS Air Shipping Document, the shipper declares the released value of each shipment to be [illegible] for each $100 U.S. or fraction thereof of declared value for insurance per shipment in excess of $100 U.S. [illegible] stated on the rate chart in effect at the time of shipping, will be assessed. Liability for loss or damage is governed by [illegible] Terms and Conditions and shall be limited to proven damages up to an amount not exceeding $100 U.S. per shipment unless a higher value has been declared by the shipper. However, the rules relating to liability established by the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw, Poland on October 12, 1929, and any amendments thereto shall apply to the international carriage of any shipment hereunder insofar as the same is governed thereby. Except [illegible] by the shipper, the carrier will remit excess valuation charges to an insurance company or companies as a premium [illegible] insurance for the shipper's account and on its behalf. When the carrier does so, claims for loss or damage to [illegible] will be filed and settled by the carrier on behalf of the applicable insurance company. [illegible] available for inspection at the office of the carrier. Claims not made within six (6) months after delivery of [illegible] within six (6) months after a reasonable time for delivery has elapsed, shall be deemed waived. The [illegible] shall not be liable for any special, incidental, or consequential damages.

All shipments are subject to the terms and conditions [illegible] the UPS [illegible] which is maintained at local UPS offices.

THE RULES RELATING TO LIABILITY ESTABLISHED BY THE WARSAW CONVENTION AND ANY AMENDMENTS THERETO SHALL APPLY TO THE INTERNATIONAL CARRI[illegible] SHIPMENT HEREUNDER INSOFAR AS THE SAME IS GOVERNED THEREBY.

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		Gas	2.82	12.33	0.06	0.25	0.70	3.08	0.08	0.33	0.12	0.55
		Oil	3.00	13.14	0.03	0.13	0.75	3.29	10.65	46.65	0.30	1.31
		MAX	3.00	13.14	0.06	0.25	0.75	3.29	10.65	46.65	0.30	1.31
Hot Oil Heater(backup unit)		Gas	0.81	3.57	0.04	0.19	0.17	0.75	0.03	0.14	0.04	0.16
		Oil	1.22	5.32	0.01	0.05	0.31	1.33	4.33	18.88	0.12	0.53
		MAX	1.22	5.32	0.04	0.19	0.31	1.33	4.33	18.88	0.12	0.53
Fume Recovery System [1,2]		NA			12.47	21.51						
Tank 33		Heavy Oil			0.12	0.005						
Tank 67		Heavy Oil			0.04	0.002						
Fugitives		NA			0.98	0.568						
New Hot Oil Heater		Gas	1.34	5.87	0.03	0.12	0.34	1.47	0.04	0.16	0.06	0.26
		Oil	1.42	6.26	0.01	0.06	0.36	1.56	5.04	22.21	0.14	0.63
		MAX	1.42	6.26	0.03	0.12	0.36	1.56	5.04	22.21	0.14	0.63
T-200		Liquid Pitch				Note 3						
Plant Total			5.64	24.72	13.74	22.64	1.41	6.18	20.02	87.74	0.56	2.47

NOTES

[1] The fume recovery system receives emissions from the following units: T-68, T-65, T-200, railcar loading artd tank car loading.

[2] Hourly and annual VOC emissions from the fume recovery system were calculated using ChemCAD.

[3] Emissions from T-200 are included in the fume recovery system's emissions.

Koppers019634

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		Gas	2.82	12.33	0.06	0.25	0.70	3.08	0.08	0.33	0.12	0.55
		Oil	3.00	13.14	0.03	0.13	0.75	3.29	10.65	46.65	0.30	1.31
		MAX	3.00	13.14	0.06	0.25	0.75	3.29	10.65	46.65	0.30	1.31
Hot Oil Heater(backup unit)		Gas	0.81	3.57	0.04	0.19	0.17	0.75	0.03	0.14	0.04	0.16
		Oil	1.22	5.32	0.01	0.05	0.31	1.33	4.33	18.88	0.12	0.53
		MAX	1.22	5.32	0.04	0.19	0.31	1.33	4.33	18.88	0.12	0.53
Fume Combustion System[1,2]		NA			0.49	2.16						
Tank 33		Heavy Oil			0.12	0.005						
Tank 67		Heavy Oil			0.04	0.002						
Fugitives		NA			0.98	0.568						
New Hot Oil Heater		Gas	1.34	5.87	0.03	0.12	0.34	1.47	0.04	0.16	0.06	0.26
		Oil	1.42	6.26	0.01	0.06	0.36	1.56	5.04	22.21	0.14	0.63
		MAX	1.42	6.26	0.03	0.12	0.36	1.56	5.04	22.21	0.14	0.63
T-200		Liquid Pitch				Note 3						
T-210		Liquid Pitch				Note 3						
Plant Total	**Maximum**		**5.64**	**24.72**	**1.76**	**3.29**	**1.41**	**6.18**	**20.02**	**87.74**	**0.56**	**2.47**

NOTES

[1] The fume combustion system recieves emissions from the following units: T-68, T-65, T-200, T-210, railcar loading and tank car loading, and an additional loading rack.

[2] Hourly emissions from the fume combustion system were calculated assuming an uncontrolled emission rate of 24.7 and a destruction efficiency of 98%. Annual emissions assumes 8,760 hours of operation.

[3] Emissions from T-200 and T-210 are included in the fume combustion system's emissions.

Koppers019635

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	15.45						
Tank 33		Heavy Oil			0.12	0.003						
Tank 67		P1/P13 Distillate			1.71	0.035						
Loading Tank 67 to Rail		P1/P13 Distillate			2.46	0.005						
Fugitives		NA			0.98	0.266						
Plant Total			**3.63**	**2.63**	**17.84**	**15.88**	**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 VOC was adjusted by 1997 actual operating hours over 8,760 hours.

Koppers019636

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		Gas	2.82	12.33	0.06	0.25	0.70	3.08	0.08	0.33	0.12	0.55
		Oil	3.00	13.14	0.03	0.13	0.75	3.29	10.65	46.65	0.30	1.31
		MAX	3.00	13.14	0.06	0.25	0.75	3.29	10.65	46.65	0.30	1.31
Hot Oil Heater		Gas	0.81	3.57	0.04	0.19	0.17	0.75	0.03	0.14	0.04	0.16
		Oil	1.22	5.32	0.01	0.05	0.31	1.33	4.33	18.88	0.12	0.53
		MAX	1.22	5.32	0.04	0.19	0.31	1.33	4.33	18.88	0.12	0.53
Fume Recovery System [1,2]		NA			12.47	21.51						
Tank 33		Heavy Oil			0.12	0.005						
Tank 67		P1/P13 Distillate			0.85	0.035						
Loading Tank 67 to Rail		P1/P13 Distillate			2.46	0.004						
Fugitives		NA			0.98	0.568						
Plant Total			**4.22**	**18.46**	**16.98**	**22.56**	**1.06**	**4.61**	**14.98**	**65.53**	**0.42**	**1.85**

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.

Koppers019637

Facility Background

Koppers Industries operates its Portland facility to receive and distribute industrial pitch, a critical component for the production of aluminum in the Pacific Northwest. The plant operation consists of receiving both solid and liquid pitch and shipping liquid pitch to customers. Koppers also produces creosote wood preservative for distribution to wood treating customers.

The Portland operation currently includes: a solid pitch storage shed; a pitch melter tank number 65; a liquid pitch shipping tank number 68; a heavy correction oil tank number 33; a creosote blending and shipping tank number 67; a gas/oil dual fuel fired, 21 million Btu per hour steam boiler; a gas/oil-fired hot oil heater; rail car and tank truck loading stations; and a pitch fume recovery system. The fume recovery system currently collects fumes from tanks 65, 68, and the rail car and tank truck loading stations.

This air permit application is submitted after review and analysis of Koppers' business projections as well as evaluating the potential for future business. The plant operating throughput is measured in terms of short tons of pitch per year. The current throughput for 1998 is approximately 70,000 tons. The maximum future business potential throughput is estimated at 150,000 short tons per year.

Basis of Air Permit Emissions Estimates

The emissions estimates included in this application are calculated from the plant operations at defined throughputs and presented in the following format:

- Actual Emissions from Existing Units
- Maximum Potential Emissions from Existing Units
- Phase One Facility Expansion
- Phase Two Facility Expansion

Facility Expansion

The potential to expand the operation is planned in two stages. Phase One Expansion is a near term plan based on foreseeable, eminant business development. Phase Two Expansion includes anticipated changes in operations that may occur due to potential, but not immediate, business opportunities.

The plan for Phase One Expansion is to install one additional liquid pitch storage tank number T-200 (nominally two million gallons of capacity), a ship receiving terminal and pipeline and a new 10 million Btu per hour hot oil heater with the existing 8.5 million Btu per hour hot oil heater available as a standby.

The Phase Two Expansion would include a second two million gallon pitch storage tank, T-210. Also, if an additional rail car or tank truck loading station is required; a new fume combustor would be installed.

Fume Recovery System and Future Revisions

The existing pitch fume recovery system controls emissions from the pitch melter tank number 65, the shipping tank number 68 and the truck and rail car loading stations. This system utilizes a coal tar distillate to process fumes entering from the pitch fume collection duct network. The facility uses a KII coal tar distillate, called "heavy oil", as a contacting medium. Analysis shows that heavy oil is an excellent fluid in the fume recovery system and is recovered directly into the pitch product. Since heavy oil is a higher viscosity material, the fume recovery system is required to be at an elevated temperature to maintain proper operability. Thus it is equipped with electric heaters for the fume recovery circulation tank to boost the system's temperature. Refer to the system sketch as an aid in understanding the fume recovery process.

The system employs a venturi eductor to contact the fumes collected from the tanks and loading station. The heavy oil is stored within the tank mounted to the base of the eductor and is

circulated by pumping. On the outlet of the eductor vent a mist eliminator is installed in the stack of the fume recovery system. The vapor contacting the heavy oil in the fume recovery system can result in entrainment or carryover of particulates out the exit stack. The mist eliminator acts to disengage suspended organics from the vapor stream, allowing them to drop out and be returned to the fume recovery system.

In the event of a Phase Two Expansion resulting in additional requirements for fume handling capacity, the existing pitch fume recovery system will be replaced with a thermal oxidizer and heat recovery unit. As opposed to the fumes that are drawn into the existing system by a venturi, a blower would be installed to draw vapor from the pitch fume piping network and discharge them into the oxidizer. The thermal oxidizer would be designed to provide sufficient reaction time and temperature resulting in a minimal 98% destruction efficiency of VOC's from the fume system. Prior to exiting a stack, the oxidized vapors would pass through an exchanger to recover heat (energy) into a hot oil system used for plant heating systems.

Permit Conditions

The company will be required to operate its facility in such a manner to perform as follows to comply with the permit:

- The company will be permitted to discharge exhaust gases from stationary operations directly associated with the facilities described herein.

- Not exceed the following total emissions for the steam boiler and hot oil heaters:
  - 2.47 Tons per year or 0.56 Lbs/Hour of PM-10 particulate.
  - 6.18 Tons per year or 1.41 Lbs/Hour of CO
  - 24.72 Tons per year or 5.64 Lbs/Hour of NOx
  - 87.74 Tons per year or 20.02 Lbs/Hour of SO2
  - 3.29 Tons per year or 1.76 Lbs/Hour of VOC

- Perform boiler maintenance, including inspection of the combustion chamber and refractory and burner adjustment, at least every two years.

- Not exceed the following total emissions for the fume recovery system:
  - 22.64 Tons per year or 13.74 Lbs/Hour of VOCs
  - Compliance to be tested and reported by the combined Methods 1-4 and 25A of Appendix A of 40 CFR 60.

- The company shall operate and maintain any equipment generating air emissions efficiently and by the best practice.

- The company shall notify the Department within 45 days of plans to implement system or operational changes or additions associated with Phases One or Two Expansions. The company shall have 30 days to inform the Department when system changes have been started up and 90 days to come into compliance of the permit limits.

Pitch Fume Collection and Recovery System Process Flow Diagram

T-210

Future Liquid Pitch Storage Tank (Phase 2)

T-200

New Pitch Storage Tank - 1999 (Phase 1)

Solid Pitch Feed

T-65

Solid Pitch Melter

Transfer Pump

T-68

Loading Pump

Future T/W Loading (Phase 2)

T/W Loading

Railcar Loading

Stack Emissions

Fume Recovery System

Stack Emissions

Future Fume Combuster and Hot Oil Heater (Phase 2)

Existing Liquid/Solid

Existing Vapor

Future Liquid/Solid

Future Vapor

Koppers019642

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

October 22, 1997

DEQ Business Office
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204

Attention: **Ms. Kathy Amidon**
Environmental Specialist
Air Quality Section

Re: **Supplemental Information**
Air Permit Application
Multnomah County; File No. 26-2930
Industrial Boiler

Dear Ms. Amidon:

In response to your recent request for additional air emission data, I have evaluated the impact of burning distillate oil #2 in all of the combustion units at the Koppers Portland Terminal.

Attached is a revised spread sheet showing the maximum potential emissions from existing equipment and from additional equipment that may be installed at the facility within the next five years. Please note that the emission estimates were listed under three separate tables in the spread sheet. The scenarios were established as follows:

Case 1: existing equipment (where is, as is)
Case 2: possible future equipment additions (probable installation, but not assured)
Case 3: combined maximum potential emissions of Case 1 and Case 2

In each Case study, please note that quantities in each column that was used to calculate the total maximum potential emission for each criteria pollutant is highlighted in bold text. The results of all case studies show that the Portland Terminal is not a major source now, nor will it become a major source in the near future.

If you have any questions, please call Mr. Amos Kamerer, Plant Manager, at 503-286-3681 or me at 412-227-2883.

Sincerely yours,

William E. Swearingen
Manager, Environmental Programs

Enclosures

cc: A. S. Kamerer; Portland

C:\WPWIN60\PORTLAND\BOILER2.LTR

bcc: w/o enclosures
W. W. Turner; K-1600
R. D. Collins; K-1700

bcc: with enclosures
J. T. Dietz; HTC
S. T. Smith; K-1800

MAXIMUM POTENTIAL EMISSION

PORTLAND TERMINAL

Maximum Emissions from Existing Combustion Units														
CASE 1	Comments	INPUT MM BTU/Hr Gal/Hour	Burner Type	FUEL USED	NOx lb/MMcuft Gal/Hour	NOx Tons/Yr	VOC lb/MMcuft Gal/Hour	VOC Tons/Yr	CO lb/MMcuft Gal/Hour	CO Tons/Yr	SO2 lb/MMcuft Gal/Hour	SO2 Tons/Yr	PM lb/MMcuft Gal/Hour	PM Tons/Yr
Atlas Boiler	long term	21	Gas/Oil	Gas	140	12.334	2.800	0.247	35.000	3.084	3.800	0.335	2.500	0.220
	short term	21		Gas	140						2.600	0.229		
	long term	150	Gas/Oil	Oil	20	13.140	0.200	0.131	5.000	3.285	71.000	46.647	2.000	1.314
Hot Oil Heater	long term	8.5	Gas/Oil	Gas	100	3.566	5.300	0.189	20.000	0.713	3.800	0.136	2.500	0.089
		60	Gas/Oil	Oil	20	5.256	0.340	0.089	5.000	1.314	71.000	18.659	2.000	0.526
Plant Total	Maximum			Gas		18.396		0.436		4.599		65.306		1.840

Maximum Emissions from Future Combustion Units and Tanks														
CASE 2	Comments	INPUT MM BTU/Hr Gal/Hour	Burner Type	FUEL USED	NOx lb/MMcuft Gal/Hour	NOx Tons/Yr	VOC lb/MMcuft Gal/Hour	VOC Tons/Yr	CO lb/MMcuft Gal/Hour	CO Tons/Yr	SO2 lb/MMcuft Gal/Hour	SO2 Tons/Yr	PM lb/MMcuft Gal/Hour	PM Tons/Yr
New H. O. Heater	long term	8	Gas/Oil	Gas	100	3.356	5.300	0.178	20.000	0.671	3.800	0.128	2.500	0.084
New H. O. Heater	long term	57	Gas/Oil	Oil	20	4.993	0.340	0.085	5.000	1.248	71.000	17.726	2.000	0.499
New Pitch Tanks	no controls					0.000		20.040		0.000		0.000		0.000
	98% control					0.000		0.401		0.000		0.000		0.000
Plant Total	Maximum					4.993		0.579		1.248		17.726		0.499

Maximum Emissions from Existing and Future Combustion Units and Tanks										
CASE 3	FUEL USED		NOx Tons/Yr		VOC Tons/Yr		CO Tons/Yr		SO2 Tons/Yr		PM Tons/Yr
Plant Total - Maximum	Gas/Oil		23.389		1.014		5.847		83.032		2.339

Natural Gas = 1044 BTU/cuft
SO2 long term maximum based on 13,200 grains sulfur per millin cubic feet natural gas, determined by Northwest supply.
SO2 short term maximum based on 9,100 grains sulfur per millin cubic feet natural gas, determined by Northwest supply.
Distillate Oil #2 = 140,000 BTU/gallon @ 71 lbs S0x per 1,000 gallons
Calculation for criteria pollutants = (max input in mm BTU/hr) X (Criteria emission factor) X (8760 hrs/yr)/(2000 lbs/ton * 1044 BTU/SCF)
Emission factors are taken from DEQ table - Air Quality Division 2/23/93

KOPPERS INDUSTRIES

Koppers019644

TRANSMIT REPORT

1998,10-21 11:17
412 227 2423
KOPPERS ENVIRO/LEGAL

COM No.	REMOTE STATION	START TIME	DURATION	PAGES	RESULT	USER ID	REMARKS
078	412 826 3999	10-21 11:15	02'17	02/02	OK		

7498407164

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

October 22, 1997

DEQ Business Office
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204

Attention: **Ms. Kathy Amidon**
Environmental Specialist
Air Quality Section

Post-it® Fax Note 7671 | Date 10/21/97 | # of pages ▶ 2
To Jim Dietz | From Dave Self
Co./Dept. | Co.
Phone # | Phone #
Fax # | Fax #

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Air Permit Application
Multnomah County; File No. 26-2930
Industrial Boiler

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E-MAILED to PORTLAND 10-30-07

State of Oregon
Department of Environmental Quality

INVOICE
AIR CONTAMINANT DISCHARGE PERMIT ANNUAL FEE

file

RECEIVED
OCT 25 2007

Invoice Number: AQCDP08-0048
Invoice Date : 10/22/2007
Due Date: **12/1/2007**
Permit Number: 26-2930-SI-01

To: Koppers Industries Inc.
436 7th Ave
Pittsburgh, PA 15219-1826 USA

Location:
Koppers Industries, Inc.
7540 NW SAINT HELENS RD
PORTLAND, OR 97229

Fees In accordance with OAR 340-216-0020, Table 2, Part 2

ITEM	AMOUNT DUE	DATE DUE
Simple ACDP - Low Fee Annual Fee (for 01/01/2008 to 12/31/2008)	$1,920.00	
Simple ACDP - Add on for High Fee Annual Fee (for 01/10/2008 to 12/31/2008)	$1,920.00	
TOTAL	**$3,840.00**	**12/1/2007**
TOTAL DUE with 7 Day Late Fee	**$4,032.00**	**12/8/2007**
TOTAL DUE with 30 Day Late Fee	**$4,224.00**	**12/31/2007**
TOTAL DUE with 60 Day Late Fee	**$4,608.00**	**1/30/2008**

Questions? Contact DEQ Air Quality Program Operations at 503 229-5108, 800 452-4011 (Oregon Only), (TTY) 503 229-6993

Cut here and return bottom portion with payment

DEQ Copy

Remit and make checks payable to:

Department of Environmental Quality
Attn: Accounting Office
811 SW Sixth Avenue
Portland, OR 97204-1390

Invoice Number: AQCDP08-0048

Amount Due: $3,840.00

Amount Enclosed:

Facility Name : Koppers Industries, Inc.

Permit Number : **26-2930-SI-01** Region : **NWR**

☐ Check here if your Name, Ownership, or Invoice Address has changed and write your new information on the back of this payment slip.

10040-11110-8105 $3,840.00

AQCDP08-0048

Declaration Form for Simple ACDP Permit Holders

Instructions: Simple Air Contaminant Discharge Permits are divided into two fee categories, high fee and low fee. In order to continue to qualify for the low fee category, the permittee must meet the low fee criteria for twelve months prior to invoicing **and** must certify that their estimated emissions for the coming year will meet the low fee criteria. All Simple ACDP sources are being invoiced at the high fee of $3,840 for 2008 Annual Fees. The Department requires that low fee category sources send this Declaration in along with their payment in order to pay the reduced fee of $1,920. Certification must be renewed every year. The criteria to qualify for the low fee are defined in OAR 340-216-0064. If you will not meet the low fee criteria for 2007 or if you estimate that your 2008 emissions will exceed the low fee criteria, pay the full invoice amount.

Contact Gregg Dahmen at (503) 229-5108 if you have questions.

A Source may qualify for the Low Fee if:

(A) the source is, or will be, permitted under only one of the following categories from OAR 340-216-0020 Table 1, Part B (category 25. Electric Power Generation, may be included with any category listed): Category 6. Asphalt felt and coatings; or Category 12. Boilers and other fuel burning equipment; or Category 30. Galvanizing & Pipe coating; or Category 36. Gray iron and steel foundries, malleable iron foundries, steel investment foundries, steel foundries 100 or more tons/yr. metal charged (not elsewhere identified); or Category 37. Gypsum products; or Category 41. Liquid Storage Tanks subject to OAR Division 232; or Category 50. Non-Ferrous Metal Foundries 100 or more tons/yr. of metal charged; or Category 51. Organic or Inorganic Industrial Chemical Manufacturing; or Category 63. Secondary Smelting and/or Refining of Ferrous and Non-Ferrous Metals; or Category 75. All Other Sources not listed in Table 1 which would have actual emissions, if the source were to operate uncontrolled, of 5 or more tons a year of PM_{10} if located in a PM_{10} non-attainment or maintenance area, or 10 or more tons of any single criteria pollutant in any part of the state; and

(B) The actual emissions from the 12 months immediately preceding the invoice date, and future projected emissions are less than 5 tons/yr. PM_{10} in a PM_{10} nonattainment or maintenance area, and less than 10 tons/yr. for each criteria pollutant; and

(C) The source is not considered an air quality problem or nuisance source by the Department.

----------**Send Declaration with Payment** ----------

Company _____ ACDP Permit No. _____ Date _____

I certify that our facility meets the requirements for the low fee category, and further certify that our criteria emissions in the past twelve months, and our projected annual emissions for 2008, meet the Low Fee requirements of OAR 340-216-0064. Should our emissions exceed the limits in the future, we will be subject to collection of corrected fees, including penalties and interest as applicable.

Certified By:

_____ _____ _____

Name Title Signature

emailed to Amos Kamerer 11/1/04

State of Oregon

Department of Environmental Quality

INVOICE

AIR CONTAMINANT DISCHARGE PERMIT ANNUAL FEE

FOR THE PERIOD: 1/1/2005 THROUGH 12/31/2005

RECEIVED
OCT 29 2004

Invoice Number: **AQCDP05-0455**
Invoice Date: 10/1/2004
Invoice Due Date: **12/1/2004**

Permit Number: 262930

To: Koppers Industries Inc
436 7th Ave
Pittsburgh, PA 15219

Location:

Koppers Industries, Inc.
7540 NW SAINT HELENS RD
PORTLAND, OR 97229

Itemized fee as per Table 2 as revised 3/14/2002

Ref #		Category #	Amount Due	Date Due
7	SIMPLE PERMIT ANNUAL FEE	105	$3,200	
	Total		**$3,200**	12/1/2004
	Total due with 7-day Late Fee		**$3,360**	12/8/2004
	Total due with 30-day Late Fee		**$3,520**	12/31/2004
	Total due with 60-day Late Fee		**$3,840**	1/30/2005

For Questions, please contact Armalinda Fernandez at (503) 229-5584
1-800-452-4011 (Oregon Only)
(TTY) 503-229-6993

Cut here and return bottom portion with payment

DEQ COPY

Remit and make checks payable to:

Dept. of Environmental Quality
Attn: Business Office
811 SW Sixth Avenue
Portland, OR 97204-1390

Invoice Number: AQCDP05-0455

Amount Due **$3,200**

Amount Enclosed: [ ]

Facility Name: Koppers Industries, Inc.

Permit Number: 262930

Region: NWR

05-10040-11110-8101 $3,200

AQCDP05-0455

State of Oregon

Department of Environmental Quality

INVOICE

AIR CONTAMINANT DISCHARGE PERMIT ANNUAL FEE

FOR THE PERIOD: 1/1/2003 THROUGH 1/1/2004

Invoice Number: **AQCDP03-0508**
Invoice Date: 10/11/2002
Invoice Due Date: **12/1/2002**

Permit Number: 262930

To Koppers Industries Inc
436 7th Ave
Pittsburgh, PA 15219

Location:

Koppers Industries, Inc.
7540 NW ST. HELENS ROAD
PORTLAND, OR 97210

Itemized fee as per Table 2 as revised 3/14/2002

Ref #		Category #	Amount Due	Date Due
4	SIMPLE PERMIT ANNUAL FEE	.105	$3,200	
	Total		**$3,200**	12/1/2002
	Total due with 7-day Late Fee		**$3,360**	12/8/2002
	Total due with 30-day Late Fee		**$3,520**	12/31/2002
	Total due with 60-day Late Fee		**$3,840**	1/30/2003

AQCDP

****IMPORTANT NOTICE****

DATE: DEC 09 2002

Dear Air Quality Permittee:

Please direct this notice and the attached late fee invoice to your facility's responsible person for ensuring compliance with your Air Quality Permit.

This is your:

✓ **first** late fee notice and the total fees due by the 30th day invoice due date of this includes a 5% late fee. (See amount highlighted)

____ **second** late fee notice and the total fees due includes a 10% late fee. (See amount highlighted)

____ **third** late fee notice and the total fees due includes a 20% late fee. (See amount highlighted)

If this is your third late fee notice, your Air Quality Permit is subject to cancellation in accordance with OAR-340-216-0082(d) if the fees are not received no later than 90 days from the due date of the invoice.

If you have any questions, please contact your Air Quality Inspector, or if you are not sure who that is, please contact the appropriate Permit Coordinator.

Permit Coordinator: Catherine Blaine, Northwest Region, 503-229-5582; Patricia Hamman, Western Region, 503-378-8240 ext. 225; Bonnie Hough, Eastern Region, 541-388-6146 ext. 223.

State of Oregon

Department of Environmental Quality

INVOICE

AIR CONTAMINANT DISCHARGE PERMIT ANNUAL FEE

FOR THE PERIOD: 1/1/2003 THROUGH 1/1/2004

RECEIVED OCT 18 2002

Invoice Number: **AQCDP03-0508**
Invoice Date: 10/11/2002
Invoice Due Date: **12/1/2002**

Permit Number: 262930

To Koppers Industries Inc
436 7th Ave
Pittsburgh, PA 15219

Location:

Koppers Industries, Inc.
7540 NW ST. HELENS ROAD
PORTLAND, OR 97210

Itemized fee as per Table 2 as revised 3/14/2002

Ref #		Category #	Amount Due	Date Due
4	SIMPLE PERMIT ANNUAL FEE	105	$3,200	
	Total		**$3,200**	12/1/2002
	Total due with 7-day Late Fee		**$3,360**	12/8/2002
	Total due with 30-day Late Fee		**$3,520**	12/31/2002
	Total due with 60-day Late Fee		**$3,840**	1/30/2003

If you have questions, please contact Terri Sylvester at 503-229-5181

Cut here and return bottom portion with payment

DEQ COPY

Remit and make checks payable to:

Dept. of Environmental Quality
Attn: Business Office
811 SW Sixth Avenue
Portland, OR 97204-1390

Invoice Number: AQCDP03-0508

Amount Due **$3,200**

Amount Enclosed:

Facility Name: Koppers Industries, Inc.

Permit Number: 262930

Region: NWR

03-10040-11110-8101 $3,200

AQCDP03-0508

State of Oregon

Department of Environmental Quality

INVOICE

AIR CONTAMINANT DISCHARGE PERMIT COMPLIANCE FEE

FOR THE PERIOD: 1/1/2002 THROUGH 12/31/2002

Invoice Number: **AQCDP02-1432**
Invoice Date: 3/15/2002
Invoice Due Date: **5/15/2002**

Permit Number: 262930

To Koppers Industries Inc
436 7th Ave
Pittsburgh, PA 15219

Location:
Koppers Industries, Inc.
7540 NW ST. HELENS ROAD
PORTLAND, OR 97210

Itemized fee as per Table 2 as revised 5/4/2001

Ref #		Category #	Amount Due	Date Due
5	SIMPLE FEE INCREASE	135	$1,200	
	Total		**$1,200**	5/15/2002
	Total due with 7-day Late Fee		**$1,260**	5/22/2002
	Total due with 30-day Late Fee		**$1,320**	6/14/2002
	Total due with 60-day Late Fee		**$1,440**	7/14/2002

For questions, please contact Terri Sylvester 503-229-5181

To plant

Cut here and return bottom portion with payment

DEQ COPY

Remit and make checks payable to:

Dept. of Environmental Quality
Attn: Business Office
811 SW Sixth Avenue
Portland, OR 97204-1390

Invoice Number: AQCDP02-1432

Amount Due **$1,200**

Amount Enclosed: ____

Facility Name: Koppers Industries, Inc.

Permit Number: **262930**

Region: NWR

$41.00

AQCDP02-1432

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TTY (503) 229-6993

March 15, 2002

Dear Permit Holder:

On March 8, 2002, the Environmental Quality Commission adopted several amendments to the Department's Air Contaminant Discharge Permit (ACDP) rules that effect your annual fee.

Changes to Annual Fees

1. The rule amendments increased the annual fee for all types of permits. We understand that fee increases can be difficult to manage, particularly in the current economic climate. This increase is needed in part to cover cost increases, but mainly to replace state funding (General Fund) that is no longer available to support the ACDP program. Even with the increase, the Department has had to reduce ACDP staff by about 10%. Still, our goal is to provide timely and efficient permitting, and we have made a number of streamlining changes to the ACDP program that will help us meet this goal.
2. A new low annual fee for Simple ACDPs was added to the rules for specific source categories. In order to qualify, actual and projected pollutant emissions must be less than 10 tons per year (5 tons of PM_{10} in PM_{10} non-attainment or maintenance areas). Although your facility is one of the affected source categories, our records indicate that the pollutant emissions are above the threshold for the low annual fee. If the emissions have changed or you would like to verify the actual pollutant emissions, please contact the Department's regional office listed on the cover page of your current permit.

Annual Fee Invoice

You were billed $2,000.00 in October 2001 for the 2002 annual fees based on the old rules. The enclosed invoice is for $1,200.00, which is the difference between the new high annual fee ($3,200.00) and the old fee.

If you qualify for the low annual fee, please:

1. Contact the regional office and notify them of the change; and
2. Indicate the change on the enclosed invoice and return the invoice to DEQ without payment by May 15, 2002. Since the Simple-low fee is $1,600, the Department will reimburse you $400.00.

If you do not qualify for the low fee category, please return the enclosed invoice with your payment for the amount shown on the invoice.

Future Invoices

In October 2002, you will receive a separate invoice for the 2003 annual fees. That invoice will be based on the new fee rate, so there will only need to be one invoice for the 2003 annual fees.

If you have any questions, please contact your regional office or Terri Sylvester at 503-229-5181.

Yours truly,

E. Patricia Vernon
Air Quality Program Operations Manager

Direct questions the contact Regional office nearest you.

Catherine Blaine, Permit Coordinator
Northwest Region Office
2020 SW 4th Avenue
Portland, OR 97204
503-229-5582

Bonnie Hough, Permit Coordinator
Eastern Region
2146 NE 4th, Ste. 104
Bend, OR 97701
541-388-6146 X223

Patti Hamman, Permit Coordinator
Western Region
750 Front Street NE, Ste. 120
Salem, OR 97301
503-378-8240 X225

APR 26 2006

DEQ INSPECTION REPORT
Northwest Region – Air Quality Section

Facility Name and Address:	***Permit Number***: 26-2930
Koppers Industries Inc. Attn: Amos S. Kamerer 7540 NW Saint Helens Road Portland Oregon 97210	***County***: Multnomah

Inspection Date/Time: 2-28-2006 11:00	***Reason for Inspection: (check one)***	Regularly scheduled inspection	X
		Complaint follow-up	
		Other (specify)	

Permit Type: (check one)	ACDP	X	***Inspection Type: (check two)***	FCE/PCE (specify)	
				State Inspection	X
	Title V			Announced	X
				Unannounced	

Inspector(s): (Name, Title and Agency	Tina Leppaluoto, Natural Resource Specialist, DEQ-NWR/AQ,
Air Quality Manager	Ed Druback, Northwest Region (503) 229-5151

Facility Representative(s): (Name, Title and Phone #)	T.J. Turner, General Foreman, 503-286-3681 Amos S. Kamerer, Plant Manager, 503-286-3681

Overview of Facility

The permittee operates a coal tar pitch processing facility at 7540 NW Saint Helens Road in Portland. The facility receives; stores and transfers coal tar pitch primarily used in the primary aluminum production industry. The major emissions sources at this facility consist of combustion sources used to heat the coal tar pitch, and fumes from the storage transfer and processing of the pitch. The fumes are collected and routed to a fume control system.

NC approved on October 10, 2000, allows the permittee's request to upgrade the fume control system that includes the replacement of the existing fume control system with a new thermal oxidizer. The Department also approved the facility's request to delay installation of the thermal oxidizer because of the following reasons:

- A forecasted drastic decline in Koppers business due to shut down of it's aluminum customer's operations.
- A reduction in plant emissions as a result of reduction in process throughput.

Fax: 4/22/06
T. Self, K-1800
3 Pages

- A recent modification to the operation of the fume recovery system reduces emissions further.

Process and Control Devices

- Existing air contaminant sources at the facility consist of the following:

  Boiler, fired on natural gas or distillate oil, 21 MM BTU/hr input, 1965
  Hot oil heater, fired on natural gas or oil, 8 MM BTU/hr input, 1990
  Hot oil heater, fired on natural gas or oil, 10 MM BTU/hr input, 1999
  Pitch/oil transfer system, 150,000 tons/year, 1965/modified in 1999
  Fume recovery system 150,000 tons/year, 1987
  Storage tank (T-200) and a fume combustion system, 2,100,000 gals, 1999
  Storage tank 33 and 67, 45,000 &102,000 gals, 1942 &1947
  Storage tank 66 and 101, 191,000 & 759,000 gal, 1947&1952
  Storage tank 65 and 68, 761,000 & 248,000 gal, 1947 & 1927

Pre-inspection File Review

Review of the permit file showed the facility was inspected on 8/5/2002 and found to be in compliance with the permit conditions. The normal operating schedule for the equipment is 24 hrs/day x4 days/wk x 52 wks/yr = 5976 hrs/yr.

Normal annual fuel usage is 100,000 gallons of diesel oil and 184 million cubic feet of natural gas. The maximum hourly fuel burned is 150 gallons of diesel oil and/or 30,000 cubic feet of natural gas.

Throughput of pitch pencil is expected to be 100,000 tons per year and a maximum of 562 tons per hour.

Walk-through of Facility

The facility's production process starts up at 12:00 am and runs through 12:00 pm. The trucks are loaded between 5:00 am and 7:00 am; it and takes approximately 2 hours to load a truck. Ships are loaded about 3 times a year. The permittee put in the liquid system in 2001, the level of operation during the inspection was a normal operational day. The oxidizer was not installed as planned due to low production. The facility operates with 3 full time employees and 1 part time employee. Opacity readings are done regularly and kept on-site. The person who does the readings is certified.

The transfer system used to load trucks and ships is an enclosed system which does not allow product to be released into the atmosphere. The fume system is equipped with a mister that helps reduce the vapors that are released from the process of heating up the product prior to loading trucks. The fume system contains brushes that are inspected and maintained every 6 months. The tank has a heater plate that is located underneath the tank which heats up the product to a temperature above 70 degrees for transferring the product to trucks. The facility also has a boiler. The boiler is taken down and completely torn apart and inspected inside and out for corrosion and leaks on a yearly

basis. All equipment is maintained, logs are kept daily on-site for what was found during the inspection and repairs noted. The facility has a back up generator which contains diesel in a trailer, the permittee has the product pumped out by the 15th of March each year and refilled prior to the winter months. The back up generator is used if the facility loses power. The backup generator was not used this past winter.

The facility was noted to be very clean during the time of the inspection and no odors were observed during the visit.

The current permit was on-site and is reviewed by the staff on a regular basis. No complaints have been received by the facility for the permit period.

No future changes are anticipated at this time.

Compliance Status of Facility

Check one of the following:

X	Facility is in compliance with the permit conditions described above.
	Facility is not in compliance with one or more of the permit conditions described above (provide additional detail below).

cc: T.J. Turner
7540 NW Saint Helens Road
Portland Oregon 97201

EPA Region X
This report has been ICED.

DEQinspectionreport
tl, 4/06

DEQ INSPECTION REPORT
Northwest Region – Air Quality Section

Facility Name and Address: Koppers Industries, Inc. 7540 NW St. Helens Rd. Portland, OR 97210-3663	***Permit Number***: **26-2930** ***County***: **Multnomah**

Inspection Date/Time: 08/05/2002 10:40 AM	***Reason for Inspection: (check one)***	Regularly scheduled inspection	x
		Complaint follow-up	
		Other (specify)	

Permit Type: (check one)	ACDP	x	***Inspection Type: (check two)***	Comprehensive 07	x
	Title V			Informational 08	
				Announced	x
				Unannounced	

Inspector(s): (Name, Title and Agency	Rose Lim, Natural Resource Specialist DEQ-NWR/AQ
Air Quality Manager	Audrey O'Brien, Northwest Region (503) 229-5572

Facility Representative(s): (Name, Title and Phone #)	Amos Kamerer, Plant Manager (503) 286-3681

Overview of Facility

- Koppers Industries, Inc., operates a coal tar pitch processing facility. This facility receives, stores, and transfers coal tar pitch primarily used in the primary aluminum production industry.

Pre-inspection File Review

- A file review was conducted. There are no ongoing compliance schedules or enforcement actions associated with this source. An annual report for the calendar year 2001 was submitted to the Department in accordance with the current permit reporting requirement.

Walk-through of Facility

- I interviewed Mr. Amos Kamerer, the plant manager of the facility during the inspection.
- No visible emissions or odors were observed.

RECEIVED
SEP 03 2002
KOPPERS INDS, INC.
PORTLAND OR

- The facility was in operation at the time of inspection.
- The facility was operating at normal levels at the time of inspection.
- General conditions of the facility (housekeeping, fugitive emissions, etc) were good.
- Weather Condition: 70 degrees, sunny sky, and light wind.

Permit Conditions Reviewed During Inspection

Condition #	Description	In Compliance?
7,8,9,10	Plant Site Emission Limit	Y
16	Monitoring/Recordkeeping	Y
17,18	Annual Report	Y

Review of Annual or Semi-Annual Reports During Inspection

- The facility is current with submitting an annual report to the Department for each year the permit has been in effect, in accordance with current permit reporting requirements.

Compliance Status of Facility

Check one of the following:

X	Facility is in compliance with the permit conditions described above.
	Facility is not in compliance with one or more of the permit conditions described above (provide additional detail below).

Is the facility under a compliance schedule to correct previous compliance problem(s)? Check one of the following:

X	Facility is not under a compliance schedule to correct previous noncompliance.
	Facility is on schedule to correct previous noncompliance.
	Facility is not on schedule to correct previous noncompliance (provide additional detail below).

Is the facility under a compliance schedule to comply with future requirement(s)? Check one of the following:

X	Facility is not under a compliance schedule for future requirement(s).
	Facility is on schedule to meet future requirement(s).
	Facility is not on schedule to meet future requirement(s) (provide additional detail below).

Cc:

Amos Kamerer, Plant Manager
Koppers Industries, Inc.
7540 NW St. Helens Rd.
Portland, OR 97210-3663

DEQ, AQ Source File

Post-it® Fax Note 7671	Date 9/4/02	# of pages ▶ 2
To J. Dietz	From Amos	
Co./Dept. T. Self	Co.	
Phone #	Phone # FYI	
Fax #	Fax #	

- The facility was in operation at the time of inspection.
- The facility was operating at normal levels at the time of inspection.
- General conditions of the facility (housekeeping, fugitive emissions, etc) were good.
- Weather Condition: 70 degrees, sunny sky, and light wind.

Permit Conditions Reviewed During Inspection

Condition #	Description	In Compliance?
7,8,9,10	Plant Site Emission Limit	Y
16	Monitoring/Recordkeeping	Y
17,18	Annual Report	Y

Review of Annual or Semi-Annual Reports During Inspection

- The facility is current with submitting an annual report to the Department for each year the permit has been in effect, in accordance with current permit reporting requirements.

Compliance Status of Facility

Check one of the following:

X	Facility is in compliance with the permit conditions described above.
	Facility is not in compliance with one or more of the permit conditions described above (provide additional detail below).

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	Facility is on schedule to correct previous noncompliance.
	Facility is not on schedule to correct previous noncompliance (provide additional detail below).

Is the facility under a compliance schedule to comply with future requirement(s)? Check one of the following:

X	Facility is not under a compliance schedule for future requirement(s).
	Facility is on schedule to meet future requirement(s).
	Facility is not on schedule to meet future requirement(s) (provide additional detail below).

Cc:

Amos Kamerer, Plant Manager
Koppers Industries, Inc.
7540 NW St. Helens Rd.
Portland, OR 97210-3663

DEQ, AQ Source File

Post-it® Fax Note 7671	Date 9/4/02	# of pages ▶ 2
To J. Dietz	From Amos	
~~Co./Dept.~~ T. Self	Co.	
~~Phone #~~	~~Phone #~~ FYI	
Fax #	Fax #	

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: Dietz, Self, Meisinger DATE: 6/22/99

FROM: Amos TOTAL # OF PAGES: 3

See my e-mail this date, regarding the attached Inspection Report.

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

RECEIVED
JUN 2 1 1999
KOPPERS INDS, INC.
PORTLAND OR

DEPARTMENT OF ENVIRONMENTAL QUALITY

Northwest Region -- Air Quality Section

Inspection Report

Date: June 15, 1999

EQV

Company: Koppers Industries
Address: 7540 NW St. Helens Road
County: Multnomah
City: Portland
File No.: 26-2930

Interviewee: Amos Kamerer
Inspection Date: 15 Jun 99
Phone: 286-3681

Conditions: Low, thick overcast; variable winds

Narrative:

Jennifer Yockum, of the Department's headquarters staff, accompanied me on this visit.

Koppers Industries receives pencil pitch, a solid form of coal tar, heats the product to a liquid state, and ships it out via rail and truck. The facility is also a transfer point for heavy oil. Until this year, the facility was a transfer point for creosote, which has a penetrating odor at low levels of escaped gas. The facility is located in the northwest industrial area between Highway 30 (St. Helens Road) to the west and Wacker Siltronic Corp. to the east. The facility area is leased from Northwest Natural (formerly Northwest Natural Gas), and has been in existence since 1965.

Liquid coal tar is used by the aluminum industry. It is called electrode binder pitch and is molded into anodes used in the electric current smelting process. One pound of coal tar pitch is used for each ten pounds of aluminum produced. Pencil pitch is received from marine vessels at the Port of Portland and transported to the facility by truck. The raw material is unloaded into a large, open warehouse. In its solid form, pencil pitch is cylindrical and about two inches in diameter. It can be a source of fugitive particulate emissions as pieces flake off as they are rubbed together during the unloading process. The area near the warehouse opening is cleaned with a street sweeper, then water hoses, after each delivery. The collected material is processed to recover as much raw material as is feasible, and the remainder is disposed of at the Hillsboro landfill. The doors are closed during times of high winds. The possibility exists that a wind could carry pencil pitch particles onto the neighboring site during an unloading operation, or if the area near the warehouse doors is not cleaned between loads. The edge of Koppers' property is less than 30 yards from the south door of the warehouse.

The company plans to stop shipments of pencil pitch and instead receive the coal tar in its original liquid form some time within the next three years. A new storage tank to accommodate the change is currently being constructed. It is expected that a second tank and a pipeline to the marine vessel off-loading area at the Port will be added by the end of the year 2002. The company is examining the feasibility of adding a thermal oxidizer when the second tank is constructed. It is believed that the current fume recovery system will become inadequate with the addition of the second tank.

The current fume recovery system consists of insulated piping to which all heated storage tanks are vented, and a demister to collect particulate prior to the exhaust of gasses. The temperature at the demister is supposed to be 180-200° F, but the temperature rises during the 5-day work week as continuous use heats the air at the collection tank upon which the demister sits. The company plans to add a cooling unit to the process.

Weather conditions did not allow for an opacity reading on the demister stack. It appeared that opacity ranged from 15% to as much as 35% during the time we toured the plant. I explained opacity, and the method used for judging it, to Mr. Kamerer. We compared the discharge from the boiler stack, which was clearly steam, to the exhaust of the demister stack, which had a brown tinge to it and did not disperse as quickly as the steam. The demister stack is considered to be in marginal compliance until an opacity reading can be done. Mr. Kamerer said he would speak to the company's environmental manager about the problem.

The 21 million Btu boiler was operating on low pressure during the time of the inspection. Steam was the only visible emission from the boiler stack.

Odor complaints to the facility have dropped considerably since the cessation of the receipt of creosote. A slight odor was detected on site, but no odors were detected off site.

The facility was found to be in marginal compliance for opacity limits at the demister stack. The facility was found to be in full compliance with all other permit conditions at the time of the inspection.

Submitted by: Kathy Amidon

cc: Amos Kamerer
Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, OR 97210-3663

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

Permit Evaluation Review Report

Oregon Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201
503-229-5263 FAX 503-229-6945

FINAL

Permittee: Koppers Industries, Inc. Northwest Terminal File No. 47430	**Facility Location:** 7540 NW St. Helens Road Portland
Sources Covered: Stormwater, boiler blowdown	**Receiving Stream:** Willamette River
Source Category: Coal Tar Products Pitch Terminal Minor Industrial Source	**Proposed Action:** Permit Renewal
File Information: WQ-Multnomah County File No. 47430 EPA Reference No.: OR 000077-9 Application Date: 9 August 2003 Application No. 984280 Permit No. 101642	**Source Contact:** T. J. Turner, General Foreman 503/286-3681
Preparer: Elliot Zais, PhD, PE Water Quality Source Control Section Northwest Region 503/229-5292	**Date Prepared:** 10 May 2007 **Preparer Signature:** _____

Permit RPA and Limits Workbook Instructions

(You may contact Steve Schnurbusch if you have any questions regarding this workbook)

This workbook contains worksheets to perform reasonable potential analysis (RPA) and develop water quality based effluent limits (WQBEL). The spreadsheets are developed based on EPA's methodology contained in the Technical Support Document for Water Quality-Based Toxics Control (TSD). There are seven separate worksheets to enter data.

1. Cl-, NH_3 RPA:	Performs an RPA for chlorine and ammonia toxicity.
2. Metals RPA:	Performs an RPA for metals toxicity.
3. Human Health RPA:	Performs an RPA for human health
4. Cl-, NH_3 Limits:	Calculates WQBELs for chlorine and ammonia.
5. Metals Limits:	Calculates WQBELs for metals.
6. Human Health Limits:	Calculates WQBELs for human health
7. NH_3 criteria:	Calculates ammonia criteria based on temperature and pH for both freshwater and saltwater. (This is also built into the other two spreadsheets, but you can use this one independently if desired.)

Worksheet Notes:

- Each spreadsheet is independent of each other and can be used separately. They should be set up to print out the necessary information onto a single sheet of standard sized paper.
- The facility name can be entered at the top of each worksheet.
- Data only needs to be entered into the cells with BLUE text. Cells with black text contain formulas that perform necessary calculations. DO NOT EDIT THESE.
- Comments are inserted in some of the cells to provide helpful instructions. If a cell has a RED triangle in the upper right-hand corner, the cell contains a comment. Simply move your cursor over the cell and the comment will appear on the screen.
- Each worksheet is protected allowing the user to change only the necessary cells. The user is free to format any of the cells if desired (change the width, bold or italicize text, change colors, etc). If unprotecting the worksheet is desired, simply click from the menu bar: "Tools", "Protection", and "Unprotect Sheet". There is no password needed.

Reasonable Potential Analysis

1. **Worksheet: Cl-, NH3 RPA**

Use this spreadsheet if you need to conduct a reasonable potential analysis for **chlorine or ammonia**. This methodology is explained thoroughly in section 3.3 of EPA's Technical Support Document for Water Quality-Based Toxics Control (the TSD).

1. If you have valid dilution values from a mixing zone study or a dilution model (i.e. CORMIX), enter "Y" into cell B3. Then enter the appropriate dilution values below. All further calculations within the worksheet will be based on the *entered* dilutions into column B.

   If you do not have dilution values, you can use this spreadsheet to calculate them based on the effluent flow rate, stream flow, and percentage of the stream allocated for mixing. If you do not have dilution values, enter "N" into cell B3 and enter the appropriate data for the 7Q10, 1Q10, percent stream flow for the ZID and MZ, and the effluent flow. All further calculations will be based on the *calculated* dilutions in column C. Typically no more than 10 percent should be allocated for the ZID and no more than 25 percent allocated for the MZ.

   If you have valid dilution values from a mixing zone study, it is still a good idea to enter data for the 7Q10, 1Q10, percent dilution, and effluent flow. If the calculated dilutions that appear in column C are less than those in column B, this indicates the entered dilution values from the mixing zone study are too high and the mixing zone should be re-evaluated.

   For example:

   The dilution values from a mixing zone study are 10 at the ZID and 22 at the MZ. The 7Q10 and 1Q10 for the stream are 150 and 140 cfs respectively. The effluent flow rate is 1.5 mgd and the allowable percent dilution is 10% and 25% at the edge of the ZID and MZ respectively. The calculated dilutions based on the 7Q10 and 1Q10 are 7 and 17 at the edge of the ZID and MZ. If you use the dilution values from the mixing zone study you are allowing the effluent to mix with more than 10% of the stream at the edge of the ZID and more than 25% at the edge of the MZ.

   If you do not want the calculated dilutions to appear on the spreadsheet, enter an "" in each cell of the "Data to estimate dilution" box.*

2. Enter effluent and stream data for summer and winter in columns "H" and "I". This includes entering "Y" or "N" regarding the presence of salmonids and whether it's fresh water or salt water. Alkalinity is necessary to calculate the pH at the edge of the ZID and MZ. Because pH is not a concentration and because it is not a conservative substance, a simple mass balance can not be performed with pH. The "pH mixing

RPA" worksheet performs the necessary calculation to determine the pH at the ZID and MZ. This is done automatically and nothing needs to be entered in this worksheet.

Columns "J" and "K" contain the calculated values for pH and temperature at the edge of the ZID and MZ. This is particularly critical for ammonia because ammonia toxicity is highly sensitive to high pH values. In the past we have calculated the ammonia criteria based only on the stream pH and temperature. But we must consider the effluent pH and temperature as well to correctly determine what the applicable ammonia criteria are at the ZID and MZ.

For example:

Ambient pH = 8 Effluent pH = 7.2 Dilution at ZID = 5
Ambient T = 22°C Effluent T = 25°C Dilution at MZ = 15

The ammonia criteria calculated using only the ambient pH and temperature are 4.88 and 0.66 mg/L for the CMC and CCC respectively. The ammonia criteria calculated using the mixed pH and temperature are 10.05 and 1.03 mg/L for the CMC and CCC respectively. Performing a reasonable potential analysis using only ambient pH and temperature with an ammonia data set of 25 samples, a coefficient of variation of 0.6, and a maximum concentration of 8 mg/L would result in a reasonable potential to violate the chronic ammonia criterion. Performing the analysis on the mixed pH and temperature does not result in a reasonable potential to violate the criterion.

3. The confidence level is set a default 99 percent and the probability basis is set at 95 percent. These are standard defaults used by the Department. They may be modified if justification can be provided.

4. Next, after reviewing the effluent data, enter the number of samples, the highest concentration measured, and the coefficient of variation (CV) for chlorine and ammonia. Use a CV of 0.6 if the number of samples is less than ten. Finally, enter the background concentration for the parameters of interest. If you are not performing an RPA on one of the parameters, enter an "*" in the "number of samples" cell or simply delete or hide the row.

2. **<u>Worksheet: Metals RPA</u>**

Use this spreadsheet to perform an RPA on **metals**. Data is entered into this spreadsheet in the same manner as the RPA worksheet for ammonia and chlorine although some information is not needed in this worksheet (i.e. pH, and alkalinity). Hardness is added to this worksheet and is needed to calculate the criteria for cadmium, chromium, copper, lead, nickel, silver, and zinc.

Adding Additional Parameters

To perform an RPA on additional parameters not listed, five additional parameters may be added by copying all the rows of the table in the "custom" row down four additional rows. Then fill in the appropriate data, being careful not to type over calculated cells. If you need to add more than five parameters, unprotect sheet, and copy the formulas, including the background formulas to the far right, and enter the appropriate data. You may also delete parameters listed that are not being tested for reasonable potential or change them to any parameter of choice.

Note: If you add more than five parameters you will need to change the print area to include the additional parameters listed. Highlight the area you want printed, from the file menu, go to "Print Area", and then click on "Set Print Area". Click on Print Preview to view how the document will be printed.

3. Worksheet: Human Health RPA

Use this spreadsheet to perform an RPA against our **human health** criteria. The human health criteria are based on exposure over a long period of time (i.e. 70 years). Therefore the human health is typically applied at complete dilution within the receiving body using the harmonic mean flow. If there is habitat for sessile organisms near the outfall (i.e. shellfish), a dilution will need to be calculated representing the available dilution prior to impacting the shellfish. Complete dilution should not be allowed in this type of situation.

1. To use the calculated dilution based on the complete dilution with the harmonic mean, enter "Y" into cell B3, enter the harmonic mean flow and the effluent flow rate in the cells below. The calculated dilution appears in cell B6. The harmonic mean flow can be calculated using the EPA program DFLOW.

2. To enter a "customized" dilution to be protective of a nearby sensitive habitat, enter "N" into cell B3 and enter the appropriate dilution into cell B7.

3. Additional parameters may be added in the same manner as described above under the Metals RPA spreadsheet instructions.

Permit Limit Derivation

4. Worksheet: Cl-, NH3 Limits

This worksheet is also very similar to the two previous worksheets. Enter the data as you would for the other spreadsheets. In the "# Samples/Mo" cell, enter the number of samples the facility will be required to monitor for that parameter each month. The probability basis for calculating the long term average is set at a default value of 99 percent. The resulting values typically used as permit limits are bolded and highlighted in yellow. These are the 95th percentile for the average monthly limit and the 99th percentile for the maximum daily limit. These percentiles are recommended by the TSD and should not be changed unless justification can be provided to do otherwise (see section 5.5.4 of the TSD).

Note: Effluent flow rate is necessary to calculate the mass load limits.

5. Worksheet: Metals Limits

Data entry is very similar to the other spreadsheets. This one also calculates the mass load limit to be placed in the permit. The final permit limits are bolded and highlighted in yellow. These are the limits based on the percentiles recommended by EPA in the TSD. Additional parameters may be added in the same manner as described above under the Metals RPA spreadsheet instructions.

6. Worksheet: HumanHealth Limits

Again data entry is similar to the other spreadsheets and additional parameters may be added as necessary. The methodology for calculating human health limits is different than calculating limits based on acute and chronic aquatic life criteria. The methodology is explained in section 5.4.4 of the TSD.

Ammonia Criteria Calculator

7. Worksheet: NH_3 criteria

If calculating the ammonia criteria based on pH and temperature without using the RPA or Limits worksheets is desired, use this worksheet. Enter data for dilution, pH, temperature, alkalinity, and salmonid presence. It calculates the acute and chronic ammonia criteria.

Facility Name: Enter Name Here

Date:

Dilution Values? (Y/N)	Y	calculated
Low Flow Dilution @ ZID (1Q10)	1	1.1
Low Flow Dilution @ MZ (7Q10)	1	1.2
Low Flow Dilution @ MZ (30Q5)	1	1.2
High Flow Dilution @ ZID (1Q10)	1	1.1
High Flow Dilution @ MZ (7Q10)	1	1.2
High Flow Dilution @ MZ (30Q5)	1	1.2
Enter data below if no dilution data is available		
Data to estimate dilution	**Summer**	**Winter**
Effluent Flow (mgd) =	1	1
1Q10 (CFS) =	1	1
7Q10 (CFS) =	1	1
30Q5 (CFS) =	1	1
% dilution at MZ =	25	25
% dilution at ZID =	10	10

Confidence Level =	99%
Probability Basis =	95%

Summer data	Effluent	Stream	Mixed		
			ZID	MZ	
pH * =	7	7	7.0	7.0	(6.5-9)
Temp * =	20	20	20.0	20.0	° C
Alkalinity =	25	25			
Salmonids Present? (Y/N)		y			
Salmonid Spawning? (Y/N)		y			
Fresh Water ? (Y/N)		y			
Salinity (ppt)	0	20	0.0	0.0	
Winter data					
pH * =	7	7	7.0	7.0	(6.5-9)
Temp * =	20	20	20.0	20.0	° C
Alkalinity =	25	25			
Salmonids Present? (Y/N)		y			
Salmonid Spawning? (Y/N)		y			
Fresh Water ? (Y/N)		y			
Salinity (ppt)	0	20	0.0	0.0	

PARAMETER	# of Samples	Highest Conc. mg/l	Coef. of Variance	Maximum Effluent Conc. mg/l	Background Conc. mg/l	Maximum Conc. at ZID mg/l	Maximum Conc. at MZ mg/l	WQ CRITERIA Acute (CMC) mg/l	WQ CRITERIA Chronic (CCC) mg/l	REASONABLE POTENTIAL ? ACUTE	REASONABLE POTENTIAL ? CHRONIC
Low Flow Season											
CHLORINE	5	0.00	0.60	0.0	0.0	0.0	0.0	0.0	0.0	**NO**	**NO**
AMMONIA - 1986*	5	0.00	0.60	0.0	0.6	0.0	0.0	19.3	1.2	**NO**	**NO**
AMMONIA - 1999 Maximum*	5	0.00	0.60	0.0	10.0	0.0	0.0	24.1	10.4	**NO**	**NO**
AMMONIA - 1999 Monthly*	5	0.00	0.60	0.0	1.6	n/a	0.0	n/a	4.2	**n/a**	**NO**
High Flow Season											
CHLORINE	5	0.00	0.60	0.0	0.0	0.0	0.0	0.0	0.0	**NO**	**NO**
AMMONIA 1986 Criteria*	5	0.00	0.60	0.0	0.6	0.0	0.0	19.3	1.2	**NO**	**NO**
AMMONIA - 1999 Maximum*	5	0.00	0.60	0.0	0.6	0.0	0.0	24.1	10.4	**NO**	**NO**
AMMONIA - 1999 Monthly*	5	0.00	0.60	0.0	1.6	n/a	0.0	n/a	4.2	**n/a**	**NO**

* -NOTES :

Temperature must be between 0 and 30 ° C
pH must be between 6.5 and 9
Ammonia is total ammonia as N

Koppers019670

Facility Name: Koppers Industries, Inc., Northwest Terminal

Doane Creek Discharge with no flow in Doane Creek

Date: 11-Sep-2006

Updated 17 Nov 2005

Updated 8 December 2005

Dilution Values? (Y/N)	Y	calculated
Dilution @ ZID	1	*
Dilution @ MZ	1	*
If no dilution values enter info below		
Facility Effluent Flow	*	MGD
7Q10	*	CFS
1Q10	*	CFS
% dilution at ZID	*	%
% dilution at MZ	*	%
Fresh Water? (Y/N)	y	

Hardness	mg/L $CaCO_3$
Effluent	25
Stream	25
Mixed	
ZID	25
MZ	25

(Hardness values should be >25 and <400 mg/L)

Confidence Level	99%
Probability Basis	95%

PARAMETER	# of Samples	Highest Conc.	Coef. of Varience	Maximum Effluent Conc.	Background Conc.	Maximum Conc. at ZID	Maximum Conc. at MZ	WQ CRITERIA 1 Hour (CMC)	WQ CRITERIA 4 Day (CCC)	REASONABLE POTENTIAL ? ACUTE	REASONABLE POTENTIAL ? CHRONIC	ZID
		µg/l		µg/l	µg/l	µg/l	µg/l	µg/l	µg/l			
ALUMINUM †	2	77.00	0.60	392.70	0.70	392.70	392.70	750	87	NO	YES	
ARSENIC V *	2	10.00	0.60	51.00	0.49	51.00	51.00	850	48	NO	YES	
ARSENIC III	2	10.00	0.60	51.00	0.49	51.00	51.00	360	190	NO	NO	
CADMIUM +	2	1.00	0.60	5.10	0.02	5.10	5.10	0.82	0.38	YES	YES	ZID
CHROMIUM VI	*	0.00	0.60	*	0.40	*	*	16.00	11.00	--	--	
CHROMIUM III +^	*	0.00	0.60	*	0.40	*	*	557.9	66.5	--	--	
TOTAL CHROMIUM †	2	2.00	0.60	10.20	0.40	10.20	10.20	573.9	77.5	NO	NO	
COPPER +	2	18.00	0.60	91.80	1.14	91.80	91.80	4.80	3.62	YES	YES	ZID
CYANIDE	2	5.20	0.60	26.52	0.00	26.52	26.52	22.00	5.20	YES	YES	ZID
FLUORIDE †	3	200.00	0.60	780.00	0.00	780.00	780.00	2000	1000	NO	NO	
IRON ‡	*	1500.00	0.60	*	451.00	*	*	2000	1000	--	--	
LEAD +	2	13.00	0.60	66.30	0.21	66.30	66.30	13.98	0.54	YES	YES	ZID
MERCURY	2	1.10	0.60	5.61	0.001	5.61	5.61	2.40	0.012	YES	YES	ZID
NICKEL +	2	2.00	0.60	10.20	0.53	10.20	10.20	438.9	48.8	NO	NO	
SILVER +	2	10.00	0.60	51.00	0.02	51.00	51.00	0.37	0.12	YES	YES	ZID
ZINC +	2	6300.00	0.60	32130.00	3.45	32130.00	32130.00	36.15	32.75	YES	YES	ZID
Acenapthene*	10	31.10	0.73	74.64	0.00	74.64	74.64	1700.00	520.00	NO	NO	
Anthracene	11	8.50	0.62	17.00	0.00	17.00	17.00	--	13.00	NO	YES	
Benzo(a)anthracene	15	9.90	0.77	19.80	0.01	19.80	19.80	--	0.027	NO	YES	
Benzo(a)pyrene	13	22.00	1.00	55.00	0.00	55.00	55.00	--	0.014	NO	YES	
Fluoranthene*	13	28.00	0.60	53.20	0.00	53.20	53.20	3980.00	--	NO	NO	
Fluorene	9	21.20	0.60	46.64	0.00	46.64	46.64	--	3.90	NO	YES	
Naphthalene*	6	22.00	0.60	57.20	0.00	57.20	57.20	2300.00	620.00	NO	NO	
Phenanthrene	10	29.50	1.36	112.10	0.00	112.10	112.10	--	6.30	NO	YES	
Custom	*	0.00	0.21	*	*	*	*	*	*	--	--	

NOTES :

All units in ug/L

* Insufficient data to develop criteria; value presented is the Lowest Observed Effect Level

\+ Hardness dependent criteria

‡ - No acute standard. The CMC is estimated as 2X the CCC.

† - Not DEQ Criteria

^ Marine acute criterion has insufficient data to develop criteria; value = LOEL

Acenapthene values are Table 20 LOEC

Anthracene 13 is a Screening Level Value

Benzo(a)anthracene .027 is an SLV

Benzo(a)pyrene .014 is an SLV

Fluoranthene Table 20 LOEC

Fluorene 3.9 is an SLV

Naphthalene Table 20 LOEC

Phenanthrene 6.3 is an SLV

Koppers019671

Facility Name: **Koppers Industries, Inc., Northwest Terminal** **Date:** 11-Sep-2006

Doane Creek Discharge with no flow in Doane Creek

Use Calculated Dilution?	N
Harmonic Mean Flow (cfs)	*
Facility Effluent Flow (mgd)	0.22
Calculated Dilution	#VALUE!
Customized Dilution	1.0

Confidence Level	99%
Probability Basis	95%

PARAMETER	# of Samples	Highest Conc. µg/l	Coef. of Varience	Maximum Effluent Conc. µg/l	Background Conc. µg/l	Maximum Conc. at complete mix µg/l	WQ CRITERIA Water and Fish Ingestion µg/l	WQ CRITERIA Fish Consumption ug/L	Reasonable Potential? Water and Fish Ingestion	Reasonable Potential? Fish Consumption
ARSENIC	2	10.00	0.60	51.00	0.0000	51.0000	0.0022	0.0175	YES	YES
BENZENE	2	625.00	0.60	3187.50	0.0000	3187.50	0.66	40	YES	YES
DDT	2	8.00	0.60	40.80	0.0000	40.80	0.000024	0.000024	YES	YES
DICHLOROBENZENE	2	5.00	0.60	25.50	0.0000	25.50	400	2.6	NO	YES
MERCURY	2	1.10	0.60	5.61	0.0000	5.61	0.144	0.146	YES	YES
NICKEL	2	4.00	0.60	20.40	0.0000	20.40	13.4	100.0	YES	NO
PCBs	2	4.00	0.60	20.40	0.0000	20.40	0.000079	0.000079	YES	YES
PHENOL	2	66.00	0.60	336.60	0.0000	336.60	3500	N/A	NO	NO
TETRACHLOROETHYLENE	2	0.50	0.60	2.55	0.0000	2.55	0.8	8.85	YES	NO
TOLUENE	2	471.00	0.60	2402.10	0.0000	2402.1	14300	424000	NO	NO
Acenaphthene	10	31.10	0.73	74.64	0.0000	74.6	670	990	NO	NO
Acenaphthylene	*	6.00	0.60	*	0.0000	#VALUE!			#VALUE!	#VALUE!
Anthracene	11	8.50	0.62	17.00	0.0000	17.0	8300	40000	NO	NO
Benzo(a)anthracene	15	9.90	0.85	20.79	0.0000	20.8	0.0038	0.02	YES	YES
Benzo(b)fluoranthene	14	10.50	0.78	22.05	0.0000	22.1	0.0038	0.02	YES	YES
Benzo(ghi)perylene	*	12.00	0.89	*	0.0000	#VALUE!			#VALUE!	#VALUE!
Benzo(k)fluoranthene	13	9.70	0.78	21.34	0.0000	21.3	0.0038	0.02	YES	YES
Chrysene	12	5.60	0.60	10.64	0.0000	10.6	0.0038	0.02	YES	YES
Dibenzo(ah)anthracene	10	8.90	1.03	26.70	0.0000	26.7	0.0038	0.02	YES	YES
Benzo(a)pyrene	15	22.00	1.08	52.80	0.0000	52.8	0.0038	0.02	YES	YES
Fluoranthene	15	28.00	0.93	61.60	0.0000	61.6	130	140	NO	NO
Fluorene	11	21.20	0.90	55.12	0.0000	55.1	1100	5300	NO	NO
Naphthalene	*	22.00	0.60	*	0.0000	#VALUE!			#VALUE!	#VALUE!
Phenanthrene	*	29.50	1.26	*	0.0000	#VALUE!			#VALUE!	#VALUE!
Pyrene	12	10.51	0.51	18.92	0.0000	18.9	830	4000	NO	NO
TRICHLOROETHYLENE	2	0.50	0.60	2.55	0.0000	2.55	2.7	80.7	NO	NO
CUSTOM	*	0.00	0.60	*	*	*	*	*	*	*

Koppers019672

Facility Name: Enter Name Here **Date:** 8/12/2002

Dilution Values? (Y/N)	Y	calculated
Low Flow Dilution @ ZID (1Q10)	1	1.1
Low Flow Dilution @ MZ (7Q10)	1	1.2
Low Flow Dilution @ MZ (30Q5)	1	1.2
High Flow Dilution @ ZID (1Q10)	1	1.1
High Flow Dilution @ MZ (7Q10)	1	1.2
High Flow Dilution @ MZ (30Q5)	1	1.2
If no dilution values		
Enter flow rates here	**Summer**	**Winter**
Effluent Flow (MGD)	1	1
1Q10 (CFS)	1	1
7Q10 (CFS)	1	1
30Q5 (CFS)	1	1
% dilution at MZ	25	25
% dilution at ZID	10	10
probability basis (WLA multipliers)	99%	

Summer data	Effluent	Stream	Mixed			
			ZID	MZ 7Q10	MZ 30Q5	
pH * =	7	8	7.0	7.0	7.0	(6.5-9)
Temp * =	20	20	20.0	20.0	20.0	° C
Alkalinity =	25	25				
Salmonids Present? (Y/N)		y				
Salmonid Spawning? (Y/N)		y				
Fresh Water ? (Y/N)		y				
Salinity	0	20	0.0	0.0	0.0	
Winter data						
pH * =	7	8	7.0	7.0	7.0	(6.5-9)
Temp * =	20	20	20.0	20.0	20.0	° C
Alkalinity =	25	25				
Salmonids Present? (Y/N)		y				
Salmonid Sapwning (Y/N)		y				
Fresh Water ? (Y/N)		y				
Salinity	0	20	0.0	0.0		

	WATER QUALITY CRITERIA													PERMIT LIMITS		PERMIT LIMITS	
	1 Hour	4 Day	30 Day	Back-	Allocations				#	Acute	4 day	30 day	Min	95%	99%	95%	99%
PARAMETER	(CMC)	(CCC)	(CCC)	ground	Acute	4 Day	30 Day		Samples	LTA	LTA	LTA	LTA	Monthly	Daily	Monthly	Daily
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/L	CV	/Mo	mg/l	mg/l	mg/L	mg/l	mg/l	mg/l	lb/day	lb/day
Low Flow Season																	
CHLORINE	0.019	0.011	n/a	0.00	0.02	0.01	n/a	0.6	30	0.01	0.01	n/a	0.01	**0.01**	**0.02**	**0.06**	**0.15**
AMMONIA - 1986	19.3	1.2	n/a	0.60	19.30	1.23	n/a	0.6	4	6.19	0.65	n/a	0.65	**1.0**	**2.0**	**8.4**	**16.8**
AMMONIA - 1999	24.1	10.4	4.2	0.60	24.10	10.38	4.2	0.6	4	7.74	5.5	3.24	3.24	**5.0**	**10.1**	**41.9**	**84.1**
High Flow Season																	
CHLORINE	0.019	0.011	n/a	0.00	0.02	0.01	n/a	0.6	30	0.01	0.01	n/a	0.01	**0.0**	**0.0**	**0.1**	**0.2**
AMMONIA - 1986	19.3	1.2	n/a	0.60	19.30	1.23	n/a	0.6	4	6.19	0.65	n/a	0.65	**1.0**	**2.0**	**8.4**	**16.8**
AMMONIA - 1999	24.1	10.4	4.2	0.60	24.10	10.38	4.2	0.6	4	7.74	5.5	3.24	3.24	**5.0**	**10.1**	**41.9**	**84**

NOTES : Temperature must be between 0 and 30 ° C
pH must be between 6.5 and 9
Ammonia is mg/l ammonia as N.

Koppers019673

Facility Name: **Koppers Industries, Inc., Northwest Terminal** **Date:** **11-Sep-2006**

Doane Creek Discharge with no flow in Doane Creek

Dilution Values? (Y/N)	Y	calculated
Dilution @ ZID	1	*
Dilution @ MZ	1	*
Facility Effluent Flow	0.22	MGD
If no dilution values enter info below		
7Q10	*	CFS
1Q10	*	CFS
% dilution at ZID	*	%
% dilution at MZ	*	%
Fresh Water? (Y/N)	y	

Hardness	mg/L $CaCO_3$
Effluent	25
Stream	25
Mixed	calculated
ZID	25
MZ	25

(Hardness values should be >25 and <400 mg/L)

probability basis (for WLA multipliers)	99%

	WATER QUALITY CRITERIA			Allocations			#	Acute	Chronic	Min	APPLICABLE PERMIT LIMITS			
											CONCENTRATION		MASS	
	1 Hour	4 Day	Back-								95%	99%	95%	99%
PARAMETER	(CMC)	(CCC)	ground	Acute	Chronic		Samples	LTA	LTA	LTA	Monthly	Daily	Monthly	Daily
	µg/l	µg/l	µg/l	µg/l	µg/l	CV	/Mo	µg/l	µg/l	µg/l	µg/l	µg/l	lb/day	lb/day
ALUMINUM †	750	87	0.00	750	87	0.6	2	241	46	46	**82**	**143**	**0.2**	**0.3**
ARSENIC V *	850	48	0.00	850	48	0.6	2	273	25	25	**46**	**79**	**0.1**	**0.1**
ARSENIC III	360	190	0.00	360	190	0.6	2	116	100	100	**180**	**312**	**0.3**	**0.6**
CADMIUM +	0.82	0.38	0.00	0.82	0.38	0.6	2	0.3	0.2	0.2	**0.4**	**0.6**	**0.0**	**0.0**
CHROMIUM VI	16.0	11.0	0.00	16	11	0.6	2	5.1	5.8	5.1	**9.2**	**16.0**	**0.0**	**0.0**
CHROMIUM III +^	557.9	66.5	0.00	558	67	0.6	2	179	35	35	**63**	**109**	**0.1**	**0.2**
TOTAL CHROMIUM †	573.9	77.5	0.00	574	78	0.6	2	184	41	41	**73**	**127**	**0.1**	**0.2**
COPPER +	4.80	3.62	0.00	4.80	3.62	0.6	2	1.5	1.9	1.5	**2.8**	**4.8**	**0.0**	**0.0**
CYANIDE	22.00	5.20	0.00	22.0	5.2	0.6	1	7.1	2.7	2.7	**5.9**	**8.5**	**0.0**	**0.0**
FLUORIDE †	2000	1000	0.00	2000	1000	0.6	2	642	527	527	**948**	**1643**	**1.7**	**3.0**
IRON ‡	2000	1000	0.00	2000	1000	0.6	2	642	527	527	**948**	**1643**	**1.7**	**3.0**
LEAD +	13.98	0.54	0.00	13.98	0.54	0.6	2	4.5	0.3	0.3	**0.516**	**0.895**	**0.0**	**0.0**
MERCURY	2.40	0.01	0.00	2.40	0.01	0.6	2	0.8	0.0	0.0	**0.011**	**0.020**	**0.0**	**0.0**
NICKEL +	438.9	48.8	0.00	439	49	0.6	2	141	26	26	**46**	**80**	**0.1**	**0.1**
SILVER +	0.37	0.12	0.00	0.37	0.12	0.6	2	0.1	0.1	0.1	**0.1**	**0.2**	**0.0**	**0.0**
ZINC +	36.15	32.75	0.00	36.2	32.7	0.6	2	11.6	17.3	11.6	**20.9**	**36.2**	**0.0**	**0.1**
Custom	*	*	*	*	*	0.6	2	*	*	*	*	*	*	*

NOTES :

All units in ug/L

* Insufficient data to develop criteria; value presented is the Lowest Observed Effect Leve

‡ - No acute standard. The CMC is estimated as 2X the CCC.

† - Not DEQ Criteria

^ Marine acute criterion has insufficient data to develop criteria; value = LOEL

Koppers019674

Facility Name: **Koppers Industries, Inc., Northwest Terminal** **12-Sep-2006**

Doane Creek discharge with no flow in Doane Creek

Use Calculated Dilution?	n
Harmonic Mean Flow (cfs	*
Effluent Flow (mgd)	0.22
Calculated Dilution	*
Customized Dilution	1

	WATER QUALITY CRITERIA			Allocations				Concentration Limits		Mass Limits	
PARAMETER	Water and Fish Ingestion	Fish Consumption	Back-ground	Water and Fish Ingestion	Fish Consumption		# Samples	Monthly	0.9500 Max Daily	Monthly	95% Max Daily
	µg/l	ug/L	µg/l	µg/l	µg/l	CV	/Mo	µg/l	µg/l	lb/day	lb/day
ARSENIC	0.0022	0.0175	0.49	0.0022	0.0175	0.6	4	**0.0022**	**0.0044**	**0.00000404**	**0.00001**
BENZENE	0.66	40	0	0.6600	40	0.6	4	**0.6600**	**1.3244**	**0.00**	**0.0**
DDT	0.000024	0.000024	0	0.00002	0.00002	0.6	2	**0.0000**	**0.0000**	**0.000000**	**0.000000**
DICHLOROBENZENE	400	2.6	0	400.00	2.60	0.6	2	**2.6000**	**4.5057**	**0.00**	**0.0**
MERCURY	0.144	0.146	0.001	0	0	0.6	2	**0.1440**	**0.2495**	**0.00**	**0.00**
NICKEL	13.4	100.0	0.53	13	100	0.6	2	**13.4000**	**23.2214**	**0.0**	**0.0**
PCBs	0.000079	0.000079	0	0.00008	0.00008	0.6	2	**0.0001**	**0.0001**	**0.000000**	**0.000000**
PHENOL	3500	*	0	3500.00	*	0.6	2	**3500.0000**	**6065.3035**	**6**	**11**
TETRACHLOROETHYLENE	0.8	8.85	0	0.8	8.9	0.6	2	**0.8000**	**1.3864**	**0.0**	**0.0**
TOLUENE	14300	424000	0	14300	424000	0.6	2	**14300.0000**	**24781.0972**	**26**	**45**
Acenaphthene	670	990	0	670	990	0.73	1	**670.0000**	**1045.9553**	**1**	**2**
Acenaphthylene	*	*	0.0091	*	*	0.60	1	**0.0000**	**0.0000**	**0**	**0**
Anthracene	8300	40000	0	8300	40000	0.62	1	**8300.0000**	**12242.6587**	**15**	**22**
Benzo(a)anthracene	*	0.018	0.01	*	0	0.85	1	**0.0180**	**0.0298**	**0**	**0**
Benzo(b)fluoranthene	*	0.018	0	*	0	0.78	1	**0.0180**	**0.0288**	**0**	**0**
Benzo(ghi)perylene	*	*	0	*	*	0.89	1	**0.0000**	**0.0000**	**0**	**0**
Benzo(k)fluoranthene	*	0.018	0	*	0	0.78	1	**0.0180**	**0.0288**	**0**	**0**
Chrysene	*	0.018	0	*	0	0.52	1	**0.0180**	**0.0251**	**0**	**0**
Dibenzo(ah)anthracene	*	0.018	0	*	0	1.03	1	**0.0180**	**0.0321**	**0**	**0**
Benzo(a)pyrene	*	0.018	0	*	0	1.08	1	**0.0180**	**0.0328**	**0**	**0**
Fluoranthene	130	140	0	130	140	0.93	1	**130.0000**	**222.6341**	**0**	**0**
Fluorene	1100	5300	0	1100	5300	0.90	1	**1100.0000**	**1859.3921**	**2**	**3**
Naphthalene	*	*	0	*	*	0.60	1	**0.0000**	**0.0000**	**0**	**0**
Phenanthrene	*	*	0	*	*	1.26	1	**0.0000**	**0.0000**	**0**	**0**
Pyrene	830	4000	0.0092	830	4000	0.51	1	**830.0000**	**1151.8263**	**2**	**2**
TRICHLOROETHYLENE	2.7	80.7	*	*	*	0.6	2	*	*	*	*
Custom	*	*	*	*	*	0.6	2	*	*	*	*

Koppers019675

Freshwater Ammonia Criteria Calculator

Dilution Values? (Y/N)	Y	calculated
Dilution @ ZID =	1	*
Dilution @ MZ =	1	*
Enter data below if no dilution data is available		
Data to estimate dilution		
7Q10 (CFS) =	*	
1Q10 (CFS) =	*	
% dilution at MZ =	25	
% dilution at ZID =	10	
Effluent Flow (mgd) =	1	

*** Notes:**
pH must be between 6.5 and 9.0
Temperature must be between 0 C and 30 C

Water Chemistry	Effluent	Stream	Mixed		
			ZID	MZ	
pH * =	7	8	7.0	7.0	(6.5-9)
Temp * =	20	20	20.0	20.0	° C
Alkalinity =	25	25			
Salmonids Present? (Y/N)		y			

WQ CRITERIA	
1 Hour	4 Day
(CMC)	(CCC)
mg/l	mg/l
19.30	1.23

				A		A
				P		P
a	c	l	l	a		c
l	l	a	c	l		l
	20	15	2.81	2.81	1.00	1.41

Calculation of pH of a mixture of two flows.
Based on the procedure in EPA's DESCON program (EPA, 1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State

Koppers019676

LAND, AIR, AND WATER SOLUTIONS™

RYCEWICZ & CHENOWETH LLP

NOV 17 2005

November 16, 2005

Traci Self
Koppers, Inc.
7540 NW Saint Helens Road
Portland, OR 97219-3663

Re: Koppers, Inc.: NPDES Permit Renewal, Permit No. 101642
7540 NW St. Helens Road, Portland Oregon

Dear Traci:

Enclosed please find a copy of the letter sent to Elliott Zais from Chris Rich regarding the above referenced matter. Please do not hesitate to contact our office should you have any questions. Thank you.

Very truly yours,

RYCEWICZ & CHENOWETH, LLP

Alexis M. Griffin
Legal Assistant
Email: agriffin@northwestlaw.com

Post-it® Fax Note 7671	Date 11/23/05	# of pages ▶ 6
To Traci Self	From Amos	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

601 SW Second Avenue, Ste. 1940, Portland, Oregon 97204-3176
503-221-7958, fax 503-221-2182
www.northwestlaw.com

LAND, AIR, AND WATER SOLUTIONS

RYCEWICZ & CHENOWETH LLP

FILE COPY

October 25, 2005

Elliot Zais, PhD
Oregon Department of Environmental Quality
2020 SW 4th Avenue, 1st Floor
Portland, Oregon 97201

Re: Koppers, Inc.: NPDES Permit Renewal, Permit No. 101642
7540 NW St. Helens Road, Portland Oregon

Dear Dr. Zais:

As you are aware, I have been retained by Koppers, Inc. (Koppers) to evaluate changes DEQ has proposed for the renewal of Koppers' NPDES Stormwater Permit, Permit No. 101642 (Permit).

I have reviewed DEQ's proposed permit modifications, the Applicant Review comments, and your letter of August 25, 2005 responding to those comments. As part of our effort to understand DEQ's authority and rationale for the significant proposed Permit changes, please provide responses to the following questions and issues.

1. Rationale for Effluent Limitations.

A. Proposed Permit Limits.

Under the current Permit, Koppers has consistently discharged within its Permit effluent limit for PAH of 1000 µg/L. Now DEQ is proposing a limit of "not detect" which effectively mandates treatment of the previously permitted discharge. Furthermore, new limits for Benzene, BTEX and Cyanide appear in the Applicant Review draft Permit.

In response to Koppers' earlier questions about how DEQ came to these new effluent limits, you state in an August 25, 2005 letter that DEQ was following its authority under OAR 340-041-0033(3), which provides:

> To establish permit or other regulatory limits for toxic substances for which criteria are not included in Tables 20, 33A, or 33B, the department may use the guidance values in Table 33C, public health advisories, and other published scientific literature. The department may also require or conduct bio-assessment studies to monitor the toxicity to aquatic life of complex effluents, other suspected discharges, or chemical substances without numeric criteria.

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ORS 340-41-0033(1) further states:

> Toxic substances may not be introduced above natural background levels in 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 or aquatic life, wildlife, or other designated beneficial uses.

From these provisions, it appears that the regulation of effluent discharge of toxics is conditional on a finding that the discharge is above background levels, poses a risk of harm to wildlife or humans or may accumulate in sediments or aquatic life. We request an explanation as to how DEQ believes these criteria have been met concerning the Koppers batch discharge.

As to your citation to narrative criteria, OAR 340-041-0007 Narrative Criteria provide as follows:

> (12) The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish may not be allowed;
>
> (13) The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed;
>
> (14) Objectionable discoloration, scum, oily sheens, or floating solids, or coating of aquatic life with oil films may not be allowed;

Again, the focus appears to be on the creation of conditions that will have a deleterious impact to fish, human health and recreation, and it is not clear on what basis DEQ may have concluded a violation of narrative standards exists.

Referring to the citations in your August 25, 2005 letter, there do not appear to be any guidance values in Table 33C which correspond to the proposed Permit limits. Koppers has not been made aware of any specific public health advisories, published scientific literature or bio-assessment studies related to Koppers' discharge. Please direct me to, or provide copies of, any such advisories, literature or studies.

We understand DEQ has authority under its delegated CWA program to modify effluent limitations in NPDES permits to attain or maintain water quality standards (*see* 33 U.S.C. §1312(a)) in order to protect beneficial uses such as drinking water, fish and shellfish, and recreational uses. What is not clear is whether (or how) DEQ has determined that Koppers' current discharge limits might need to be modified to protect any specific beneficial use(s).

B. Application of Cleanup Standards to NPDES Discharge.

From our review and discussions, it appears that DEQ is applying the most stringent Portland Harbor Superfund (eco-risk) Screening Level Values (SLVs) in setting the effluent limits for Koppers' NPDES draft Permit. This raises several questions.

First, on what basis has DEQ determined that cleanup SLVs should apply to Koppers' Clean Water Act NPDES discharge? The cleanup rules in ORS Chapter 340, Division 122, only apply when there is a "release or threat of release" as defined in ORS 465.200(21). As you point out in your August 25, 2005 letter DEQ cleanup laws (and CERCLA) provide an exemption to cleanup liability for permitted NPDES discharges. You cite OAR 340-122-0030 with the implication that DEQ has determined that the cleanup rules apply in our case. Again, has DEQ determined (as required by OAR 340-122-0030(2)) that Koppers' discharge is causing a "deposition, accumulation, or migration" of contaminants and poses a threat to the health and safety of humans or the environment?

We understand that DEQ and EPA have developed a joint source control strategy for the Portland Harbor. In this regard, some guidance is provided in the *Interim Final* Joint Source Control Strategy (JCSC), wherein it states in section 5.3:

> "Piped stormwater discharges to surface water are fundamentally different than groundwater discharges. Groundwater discharges have the potential to exert toxic effects on the benthic community with little or no dilution. However, piped discharges of soluble contaminants are typically diluted through rapid mixing with the waters of the receiving body."

In this regard, has DEQ considered that the groundwater surfacing on the Koppers leased property is likely no different than the groundwater entering the Willamette River from the site in general? Has DEQ concluded that Koppers' batch discharges somehow increase the contaminants above background levels, i.e., above the water quality leaving the site via groundwater? Koppers is not pumping any groundwater and the vast majority of its discharges occur during periods of high dilution (i.e., high rainfall and high river levels). Moreover, the JSCS also acknowledges that the conditional exemption for permitted discharges only applies if there is accumulation in sediment. As with the water quality regulations, discussed above, there seems to be a threshold question about the real impact of Koppers currently permitted discharge that has not been fully articulated by DEQ.

Based on my review of the Portland Harbor "Framework for Portland Harbor Storm Water Screening Evaluations" (August 2005) (SWSE), which is a companion document to the JSCS, it appears that the eco-risk screening levels focus on the risk that contaminated sediments, related interstitial groundwater, and surface water impacted by such sediment pose to the benthic community, fish, and other beneficial uses. As recognized in the JSCS, this appears to be a very different analysis than whether a transient stormwater discharge creates chronic or acute

deleterious conditions, or whether such a discharge poses any risk of accumulating in sediments. The JSCS also discusses a "weight of evidence" approach to analyzing storm water discharge risk and it is not clear if DEQ has engaged in such a process.

It is our understanding that Northwest Natural is already under a cleanup order or plan with DEQ to pump and treat contaminated groundwater from the site. You have stated that DEQ believes the groundwater chemical fingerprint from Koppers discharge is essentially the same as the groundwater being treated by Northwest Natural under its cleanup plan. The implication is that Koppers is picking up contaminated groundwater in its stormwater collection activities. I would appreciate receiving copies of the analytical data or reports that DEQ reviewed in reaching its conclusion about this groundwater issue. I would also like to clarify DEQ's thoughts on the source of the PAHs that Koppers is encountering, and whether the chemical fingerprint of the Northwest Natural groundwater indicates the same concentrations of PAHs that exist in Koppers' stormwater discharges. We will pay for all photo copies pursuant to this request.

2. Additional Permit Limits and Monitoring.

Koppers previously requested that DEQ explain the rationale for additional sampling requirements, including cyanide, pesticides, metals, tars, oils, and petroleum distillates. Some explanation would be appreciated. We have some concerns about costly sampling to analyze contaminated groundwater that both Koppers and DEQ seem to believe are unrelated to Koppers stormwater.

3. Contaminated Aquifer Policy.

I question if DEQ has appropriately considered its "Contaminated Aquifer Policy" (5/20/04) in evaluating the application of cleanup standards to Koppers NPDES draft Permit. As mentioned above, DEQ has conceded that the groundwater that is infiltrating the Koppers sumps (via entirely natural processes) is part of Northwest Natural's ongoing groundwater remediation. This raises a serious question about whether Koppers should be responsible for cleanup (i.e., treatment) of this contaminated groundwater under the Contaminated Aquifer Policy, which states:

> It is DEQ's policy, subject to specific conditions listed below, that where hazardous substances in groundwater have come to be located at a property, solely as the result of subsurface migration from a source or sources outside the property, DEQ will not take enforcement action against the owner or operator of the impacted property to require the performance of remedial actions or the payment of remedial action costs associated with the contaminated groundwater.

Under this policy, if DEQ is applying cleanup regulations or standards to, or requiring remedial actions of, Koppers via the NPDES Permit process and Cleanup Program criteria, then such

action would appear to be contrary to DEQ's statewide Contaminated Aquifer Policy. Some comment from DEQ on this issue would be helpful.

4. Additional Comments.

As I stated at the outset of this letter, Koppers goal at this time is to better understand DEQ's rationale for the significant proposed changes to the NPDES Permit, and the significant related costs. We will certainly continue to work with DEQ while considering all our options, and clarification on the above points will be very helpful in this effort.

Very truly yours,

RYCEWICZ & CHENOWETH, LLP

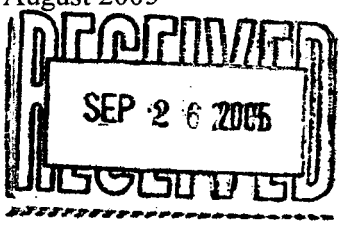
/s/

Christopher W. Rich
Email: crich@northwestlaw.com

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

25 August 2005



Traci Self
Koppers Inc.
436 7th Ave.
Room K-1800
Pittsburg PA 15219-1800

Re: NPDES permit

Dear Ms. Self:

This letter is in response to your request on 14 July 2005 for further justification of the conditions we proposed for the NPDES permit for the Koppers site in Portland at 7540 NW St Helens Road.

In order to issue an NPDES permit, DEQ is required to look at all parts of the waste stream. For this facility, the waste stream has always been characterized as tank farm runoff water, i.e., storm water and boiler blowdown water. Previous permits before 1988 also included non-contact cooling water. The containment areas are presumed to be competent and to not allow a connection to groundwater. We have analytical data that suggest Koppers' discharge has a chemical signature very similar to water being pumped as part of NW Natural's groundwater remediation. This NPDES permit does not authorize the discharge of contaminated groundwater. If Koppers is, indeed, intersecting groundwater in the containment area and discharging it, it would be an unpermitted discharge. The permit would have to be modified to include this waste stream, any appropriate effluent limitations, and any additional monitoring requirements.

Therefore, the Department would request any information Koppers has that provides the necessary engineering evaluation to demonstrate that the permitted system does not contain contaminated groundwater. Specifically, the evaluation would have to show that the storm water contaminated areas are not influenced by groundwater.

Mr. Kamerer inquired about DEQ's legal authority to set additional limits that are not directly addressed in Tables 20, 33A, and 33B. The following citation from the Oregon Administrative Rules speaks to his question.

"OAR 340-041-0033(3) To establish permit or other regulatory limits for toxic substances for which criteria are not included in Tables 20, 33A, or 33B, the department may use the guidance values in Table 33C, public health advisories, and other published scientific literature. The department may also require or conduct bio-assessment studies to monitor the toxicity to aquatic life of complex effluents, other suspected discharges, or chemical substances without numeric criteria."

The email and the Hahn and Associates, Inc. report I forwarded to you around 3 August 2005 provided some additional information about the Department's continuing investigations on the Gasco site and in Portland Harbor. Source control is a major issue which must be dealt with in order to do an effective cleanup. The soon to be released Joint Source Control Strategy document will lay out the DEQ/EPA plan to clean up the harbor.

Normally, a facility discharging in compliance with an NPDES permit is exempt from cleanup rules. However, if the discharge is causing accumulation of toxic materials to unsafe levels, the discharger's permit may no longer be appropriate. The following is the relevant part of the Oregon Administrative Rules (OAR).

OAR 340-122-0030
Scope and Applicability

These rules apply to the release or threat of release of hazardous substances into the environment, except as provided below:

(1) Exempted Releases. These rules shall not apply to releases exempted pursuant to ORS 465.200(21)(a), (b), (c), and (d).

(2) Conditional Exemption of Permitted Releases. These rules do not apply to permitted or authorized releases of hazardous substances, unless the Director determines that application of these rules might be necessary in order to protect public health, safety or welfare, or the environment. These rules may be applied to the deposition, accumulation, or migration resulting from otherwise permitted or authorized releases.

The Department sees the following possibilities for the Koppers facility:

1. Koppers could choose to work with NW Natural and maybe other tenants and build a treatment system which will be viewed as adequate, such as a GAC system. The NPDES permit for the discharge could be held individually by NW Natural or jointly by all the dischargers.

2. Koppers could choose to continue the renewal process for the current permit. This permit would include the limits in the 6 August 2004 applicant review draft permit. Discharge would be possible to either Doane Creek or to the Willamette River.

Please contact me at your earliest convenience to discuss this further.

Sincerely,

Elliot J. Zais, PhD, PE
Senior Environmental Engineer
Northwest Region

cc: Amos Kamerer and T. J. Turner

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
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FAX (503) 229-6957
TTY (503) 229-5471

6 August 2004

Traci Self
Koppers Inc.
436 7th Ave., Room K1800
Pittsburgh PA 15219

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
Amos Kamerer

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

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

DRAFT PERMIT

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.

Waybill #: **21018295056**

Origin: **DTP**

Date Printed: 3/29/2004

DHL Ship 2.00 (02/2004) A

To (Company):
Koppers Inc
7540 NW Saint Helens Road
Portland,, OR 97210
UNITED STATES

Attention To: **Amos Kamerer**
Phone #: **503-286-3681**

Service: **E**

Special Service:

Route: **PORH 4R**

www.dhl-usa.com

From (Company):
KOPPERS INDUSTRIES INC
RM 1700 KOPPERS BLDG
436 7TH AVE
PITTSBURGH, PA 15219
UNITED STATES
Sent by: T. Self
Phone #: 412-227-2885

Description:
Weight (lbs.): **Letter** Dims: 0 x 0 x 0
Pieces: 1 of 1
Protection: Not Required
Bill Shipment To: Sender
Ship Ref:

Please fold or cut in half

DO NOT PHOTOCOPY

Using a photocopy could delay the delivery of your package and will result in additional shipping charge

SENDER'S RECEIPT
Waybill #: 21018295056

To(Company):
Koppers Inc

7540 NW Saint Helens Road

Portland,, OR 97210
UNITED STATES

Attention To: Amos Kamerer
Phone#: 503-286-3681

Sent By: T. Self
Phone#: 412-227-2885

Rate Estimate: $9.68
Protection: Not Required
Description:

Weight (lbs.): Letter
Dimensions: 0 x 0 x 0

Ship Ref:
Service Level: Next Day 12:00 (Next business day by 12 PM)

Special Svc:
COD Amount: $ 0.00
Payment Options:
Date Printed: 3/29/2004
Bill Shipment To: Sender
Bill To Acct: 209593911

DHL Signature (optional) _____ Route _____ Date _____ Time _____

For Tracking, please go to www.dhl-usa.com or call 1-800-247-2676

Thank you for shipping with DHL

Create New Shipment View Pending Shipments

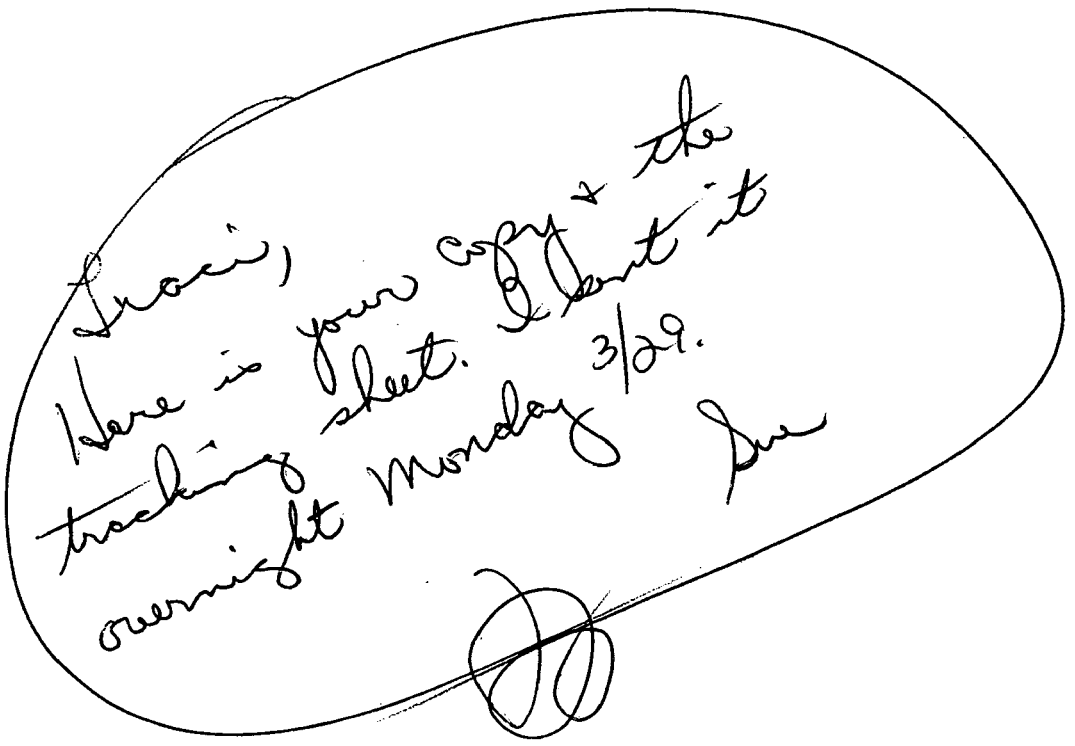
3/28/04

Hi Heather,

Please send overnight mail to Amos Kamen in Portland. He needs to get this to the agency by Friday.

Please make a copy.

Thanks,
Traci



THIS PERMIT APPLICATION FORM WAS ELECTRONICALLY GENERATED BY P.A.S.S.

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	

Koppers019718

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 C

This permit application form was electronically generated by P.A.S.S.

EPA I.D. NUMBER (copy from Item 1 of Form 1):
ORD027734359

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)

Koppers019720

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*

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instuctions 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)*

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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)

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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 dischargewithin 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 of 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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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

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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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

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 availaibe)		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

Koppers019726

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

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

Koppers019727

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

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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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

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 availalbe) (1) CONCENTRATION	c. LONG TERM AVG. VALUE (If availalbe) (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

Koppers019729

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

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)															

Koppers019730

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

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 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	
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												

Koppers019731

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

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												

Koppers019732

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												

Koppers019733

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

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												

Koppers019734

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															
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												

Koppers019735

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

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												

Koppers019736

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

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												

Koppers019737

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ORD027734359

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												

Koppers019738

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-Propylamine	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

Koppers019739

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												

Koppers019740

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 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	
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												

Koppers019741

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												

Koppers019742

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												

Koppers019743

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

Koppers019744

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.

Koppers019745

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

Koppers019746

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.

Koppers019747

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. OR000077-9
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

FROM :KOPPERS FAX NO. :5032852831 Aug. 06 2003 11:40AM P1

5032852831

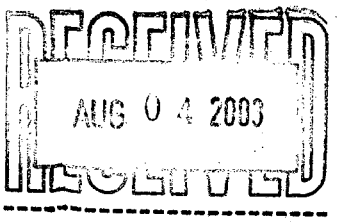
Amos S. Kamerer
Plant Manager

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

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 Name of Legally Authorized Representative (Type or Print)	Plant Manager Title
Signature of Legally Authorized Representative	3/29/03 Date

APPLICATION INSTR[illegible]TIONS FOR RENEWAL NPDES IND[illegible]DUAL 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]*

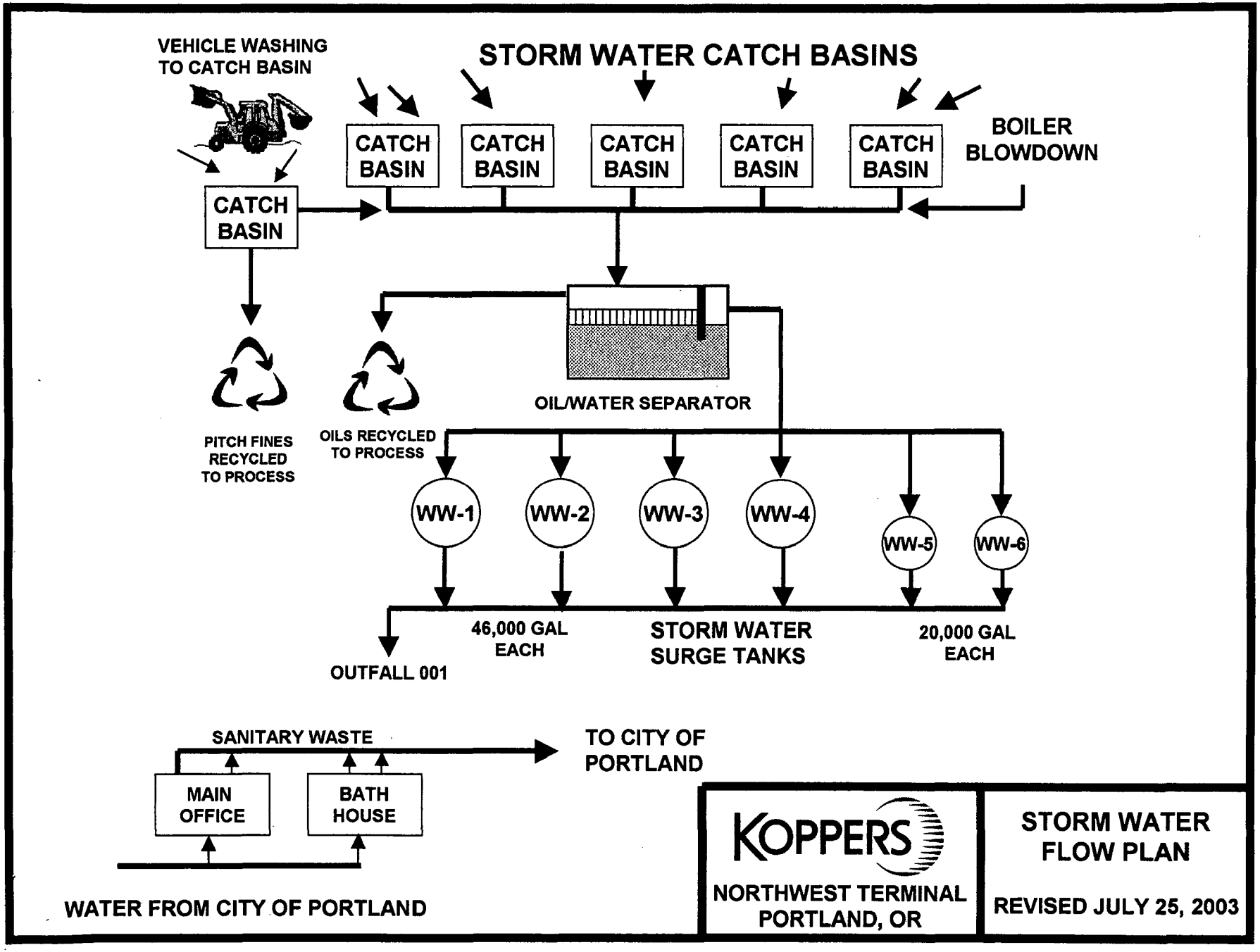
FEE AND APPLICATION SUBMITTAL:

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

Koppers019752



Koppers019753

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING DISPOSAL INFORMATION

ISSUE DATE: 07/21/98
SUPERSEDES: 06/20/94
DATE PRINTED: 03/26/03

ZEP 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. Appiy 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.

Koppers019754

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):

Koppers019755

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.

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.

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

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:	2. Common Name:
3. Permit #: DEQ Site ID#: Permit Expiration Date:	4. Facility Physical Address: City, State, Zip Code: County:
5. Responsible Official: Mailing Address:	Telephone #: City, State, Zip Code:
6. Facility Contact: Facility Mailing Address:	Telephone #: City, State, Zip Code:
7. Invoice to: Billing Address:	Telephone #: City, State, Zip Code:

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:

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.
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.

Name of Legally Authorized Representative (Type or Print)	**Title**
Signature of Legally Authorized Representative	**Date**

APPLICATION INSTR' 'IONS FOR RENEWAL NPDES IND')UAL 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

Koppers019758

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

This form must be completed by all persons applying for a permit to discharge wastewater (*existing manufacturing, commercial, mining, and silvicultural operations.*

Koppers019759

Paperwork Reduction Act Notice

The public reporting burden for this collection of information is estimated to average 3 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.

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. Bass 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 end 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 111-C

This item must be completed only it you chocked "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.

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 pan 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 maybe 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.)* Bass your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials. maintenance chemicals, Inter-

Koppers019761

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-I to V-9 if the separate sheets contain all the required information in a format which is consistent with pages V-I 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
:g/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 column3-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 feral 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 in feasible 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 then 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 now 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 f or 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 analyze only one outfall and submit the results of the analysis

Koppers019762

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 demonstrate 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 nonrequired 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-trichiorophenyl) 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 re 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.

Koppers019763

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 coal mine, and if your gross 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 processes 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 11 7.12(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 NPDES 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 §1 17.12(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.

Koppers019764

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
1-0	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 (*Ozone*)
2-B	Chemical Oxidation (*Other*)
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 Irrigation/Land Application
3-C	Anaerobic Treatment
3-D	Nitrification-Denitrification
3-E	Pre-Aeration
3-F	Spray
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 Treatment
5-C	Belt Filtration
5-D	Centrifugation
5-E	Chemical Conditioning
5-F	Chlorine Treatment Filtration
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
5-0	Incineration
5-P	Land Application
5-Q	Landfill
5-R	Pressure
5-S	Pyrolysis
5-T	Sludge Lagoons
5-U	Vacuum Filtration
5-V	Vibration
5-W	Wet Oxidation

TABLE 2C-1

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

Koppers019766

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
Pyrothrins
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

TABLE 2C-3

HAZARDOUS SUBSTANCES

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. Cournaphos
92. Cresol dodecylbenzenesulfonate
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-Dichiorophenoxyacetic 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
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

Koppers019768

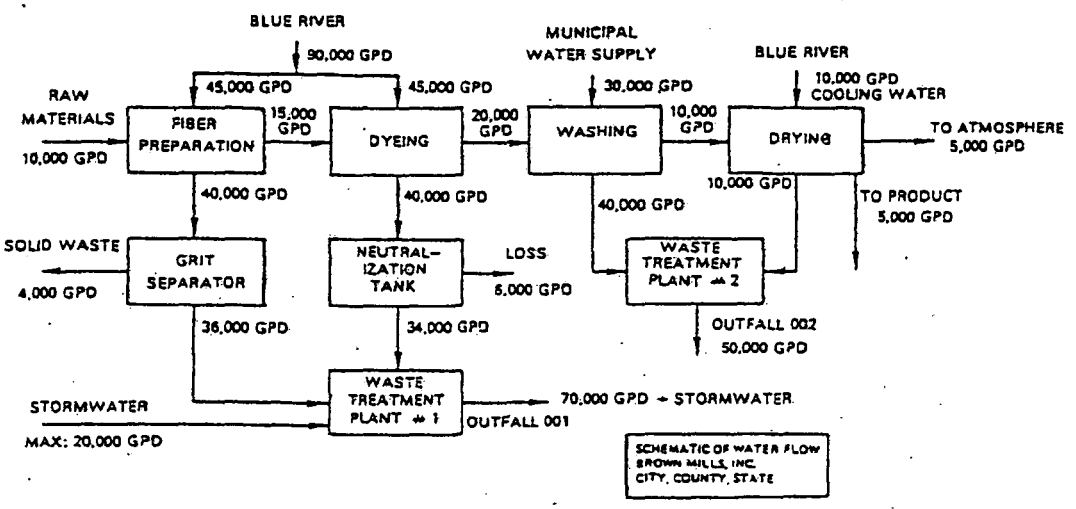
HAZARDOUS SUBSTANCES (*continued*)

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 asters (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 asters (2,4,5-Trichlorophenoxy propanoic acid asters)
259, TDE (Tetrachlorodiphenyl ethane)
260. Tetraethyl lead
261. Tetraethyl pyrophosphate
262. Thallium sulfate
263. Toluene
264. Toxaphene
265. Trichlorofon
266. Trichioroethylene
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*)

Koppers019769

LINE DRAWING



PLEASE PRINT OR TYPE IN THE UBSHADED 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*)

V. INTAKE AND EFFLUENT CHARACTERISTICS (*continued from page 3 Form 2-C*) OUTFALL NO.

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 column2 – a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe is 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 date 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. Chlorine (24959-67-9)														
b. Chlorine, Total Residual														
c. Color														
d. Fecal Coliform														
e. Fluoride (16984-48-8)														
f. Nitrate – Nitrite (as N)														

Koppers019771

ITEM V-B CONTINUED FROM FRONT

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 ANAL-YSES	(a) CONCEN-TRATION	(b) MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
			(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(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 (7439-96-6)														
w. Tin, Total (7440-31-5)														
x. Titanium, Total (7440-32-6)														

CONTINUE ON PAGE V-3

Koppers019772

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER

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 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 dinitrophanol, 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 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 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANAL-YSES	(a) CONCEN-TRATION	(b) MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
				(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(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 (7440-60-8)															
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-Tetrachlorodibenz o-P-Dioxin (1764-01-6)															

Koppers019773

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER

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 ANAL-YSES	(a) CONCEN-TRATION	(b) MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
			(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
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. Chlorodibromo-methane (124-48-1)														
9V. Chloroethane (76-00-3)														
10V. 2-Chloroethyl-vinyl Ether (110-75-8)														
11V. Chloroform (67-66-3)														
12V. Dichlorobromo-methane (75-27-4)														
13V. Dichloro-difluoromethane (75-71-8)														
14V. 1,1-Dichloro-ethane (74-34-3)														
15V. 1,2-Dichloro-ethane (107-06-2)														
16V. 1,1-Dichloro-ethylene (75-36-4)														
17V. 1,2-Dichloro-propane (78-87-5)														
18V. 1,3-Dichloro-propylene (542-75-6)														
19V. Ethylbenzene (100-41-4)														
20V. Methyl Bromide (74-83-9)														
21V. Methyl Chloride (74-87-3)														

CONTINUE ON PAGE V-5

Koppers019774

EPA I.D. NUMBER (*copy from Item 1 of Form 1*) | OUTFALL NUMBER

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. 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 (*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)														

Koppers019775

CONTINUE ON PAGE V-6

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER

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 ANAL-YSES	(a) CONCEN-TRATION	(b) MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
			(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS														
1B. Acenephthene (83-32-9)														
2B. Acenephylene (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-Benzofluor-anthene (205-99-2)														
8B. Benzo (*ghi*) Perylene (191-24-2)														
9B. Benzi (*h*) Fluor-anthene (207-08-9)														
10B. Bis (2-Chloro-ethoxy) Methane (111-91-1)														
11B. Bis (2-Chloroethyl) Ether (111-44-4)														
12B. Bis (2-Chloropropyl) Ether (102-60-1)														
13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7)														
14B. 5-Bromo-pheny Phenyl Ether (101-55-3)														
15B. Butyl Benzyl Phthalate (85-68-7)														
16B. 2-Chloro-naphthalene (92-58-7)														
17B. 4-Chloropheny 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)														

Kopper019776

EPA I.D. NUMBER (*copy from Item 1 of Form 1*) | OUTFALL NUMBER

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 ANAL-YSES	(a) CONCEN-TRATION	(b) MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
			(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)														
22B. 1,4-Dichloro-benzene (106-46-7)														
23B. 3,3'-Dichloro-benzidine (91-94-1)														
24B. Diethyl Phthalene (84-66-2)														
25B. Dimethyl Phthalate (131-11-3)														
26B. Di-N-Butyl Phthalate (84-74-2)														
27B. 2,4-Dinitro-toluene (121-14-2)														
28B. 2,6-Dinitro-toluene (696-20-2)														
29B. Bi-N-Octyl-Phthalate (117-84-0)														
30B. 1,2-Diphenyl-hydrazine (*as Azo-benzene*) (122-66-7)														
31B. Fluoranthene (206-44-0)														
32B. Fluorene (86-73-7)														
33B. Hexachloro-benzene (118-74-1)														
34B. Hexachloro-butadiene (87-68-3)														
35B. Hexachloro-cyclopentadiene (77-47-4)														
36B. Hexachloro-ethane (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-Nitrosodi-methylamine (62-75-9)														
42B. N-Nitrosodi-N-Propylamine (621-64-7)														

Koppers019777

EPA I.D. NUMBER (copy *from Item 1 of Form 1*)	OUTFALL NUMBER

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 ANAL-YSES	(a) CONCEN-TRATION	(b) MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
			(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)														
43B. N-Nitrosodi-phenylamine (86-30-6)														
44B. Phenanthrene (85-01-8)														
45B. Pyrene (129-00-0)														
46B. 1,2,4-Tri-chlorobenzene (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)														
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)														

Koppers019778

CONTINUED FROM PAGE V-8

EPA I.D. NUMBER (copy *from Item 1 of Form 1*)	OUTFALL NUMBER

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 ANAL-YSES	(a) CONCEN-TRATION	(b) MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
			(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(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)														

Koppers019779

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

Post-it® Fax Note 7671	Date 12/2/98	# of pages ▶ 19
To TRACI	From Amos	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

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 for 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.

Permit Number:
Expiration Date:
File Number: 47430

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

WASTE DISCHARGE PERMIT
Department of Environmental Quality
Northwest Region Office
2020 Southwest Fourth Avenue, Portland, OR 97201
Telephone: (503) 229-5263

APPLICANT REVIEW

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

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

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.

AIR/COMPLIANCE CONSULTANTS, INC.

Memorandum

To:	Amos Kamerer
Company:	Koppers Industries, Inc., Portland Tar Plant
From:	Kim Coy/Jill Merrill
Date:	June 15, 2000
Subject:	1999 SARA Report

Dear Amos:

The following data is needed in order to complete the 1999 inventory:

Tanks/Loading/Production Data

1. 1999 Production and maximum on site for pitch, heavy oil, P1/P13 Creosote, P&R Oil, CMN, NSR and Refined Tar
2. Please confirm the following tank throughputs:
    - T-33 (Heavy Oil) at 55,000 gal/yr;
    - T-67 (Heavy Oil) at 88,977 gal/yr
    - T-67 (Creosote) at 12,935 gal/yr
    - T-19 (P&R Oil) – please supply
    - Railcars (Refined Tars) – please supply
    - T-68 (Liquid Pitch) – please supply
    - T-65 (Liquid Pitch) – please supply
3. Please provide the following data on the new pitch tank:
    - Identification (T-??) T-200
    - Capacity (gallons) 2,069,016
    - Height 57'0"
    - Diameter 78.87'
    - Storage temperature 390°F
    - Hours in service 6.5 days.
4. Any other changes from 1998

Scrubber Information

1. Description of scrubber fluids used and time period when used for 1999?
2. Quantity of scrubber fluids used?
3. Description of recycling/disposal/treatment activities associated with the scrubber fluids. For example, if the spent scrubber solution is combined with the heavy oil or other tank(s), how much was combined.
4. Was scrubber not operational in 1999? If yes, please supply downtime hours.

Recycling/Treatment/Disposal Information NO

1. Tank and tank car cleaning
    - Any cleaning activities in 1999? If yes, quantity of material removed from cleaning and description of composition
    - Where did it go and how was it treated?
2. Any waste (sludge, et cetera) incinerated on-site?

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INTEROFFICE CORRESPONDENCE

To:	Kevin J. Fitzgerald	From:	J. T. Dietz
Location:	K-1600	Location:	K-1650
Subject:	June 2000 Operations	Date:	July 11, 2000

This report summarizes the operating activities of the CM&C Division for June 2000. Each location manager's report is attached.

Safety Report:

There were no lost time accidents in June. There was an employee at Monessen who required time off following knee surgery in June as a reoccurance of damage in May as the result of a sprain from August, 1999. The employee remains off during rehab and will go through the return to work process. This lost work day is credited back to May's statistics.

There were seven (7) additional OSHA recordable incidents and one (1) restricted work case in the month of June. Two at Monessen (back strain and heat exhaustion), one at Clairton (heat exhaustion) and four at Stickney (rib strain, eye irritation, finger burn, and finger laceration). There was one restricted work case at Woodward when an employee was bruised while disconnecting an unloading hose and one Workmen's Comp only case at Stickney due to a shoulder strain while climbing a ladder. All injury reports were filed in a timely manner.

Year to date 2000 there have been five (5) lost time accidents and thirty-two (32) OSHA recordables compared to YTD 1999 figures of fifteen (15) LWD cases and a total of twenty (20) recordables. Our LWDC rate is at 4.5 days per 200,000 hours worked compared to 4.0 for 1999 owing to carryover effects from prior the year.

Clairton, Follansbee and Portland had no LWD incidents or OSHA recordables.

We had two near misses in June. One at Follansbee when a napthalene tank car was opened under residual internal pressure and one at Stickney for a fire on top of the #1 Decomposer which was quickly extinguished.

Follansbee responded to an anonymous OSHA complaint from a contractor on site alleging exposure to chemicals. The response outlined KII's contractor training procedure and safety handbook given to each contractor employee.

I received Safety Committee and SH&E Team reports from all plants. The Stickney-hosted OSHA 10-hour awareness training will be conducted in August. We will have all operating and maintenance supervisors receive this training.

Environmental Compliance:

There were no reportable spills, air releases due to upsets or odor complaints in June. All plants submitted their DMRs for May with one May excursion incident for total cyanides at Follansbee. Stickney received a notice in June from the Metropolitan Water Reclamation District for an oil and grease excursion previously reported in March. The Clairton Plant submitted their semi-annual Benzene NESHAP Report in compliance. Clairton has been awarded a seat on the Allegheny County LEPC.

Progress on on-going environmental issues is as follows:

Follansbee Effluent Plant Excursions: Follansbee had seven days of reported excursions in June for fecal coliforms. After studying the influent and effluent samples without an apparent correlation, in response, the plant has implemented a chlorination program at the plant effluent outfall. This has resulted in near elimination of the problem, but may now require us to request a permit for chlorine discharge. In June, we paid the final negotiated fine for total solids discharge with reduced severity of violations in the amount of $88,250. In accordance with the WV DEP order we have submitted KII's action plan. We continue to work with Chester Engineers on operational support and are reviewing the daily reports on the system performance. Our next problem is that of the total cyanides in the inlet process waters to the biological system that is not designed to remove them. We have contracted Chester to study and conduct pilot testing of tertiary treatment methods.

Monessen Plan Approval Progress: In June, we received a notice of civil penalties in the amount of $114,391 for hydrogen sulfide in coke oven gas exceedances from January 1, 2000 through June 8, 2000. These are largely due to Desulf Plant equipment maintenance outages for which PA DEP was given prior notice. We are meeting with PA DEP to discuss these violations on July 12. We also met with the permitting section of PADEP on June 12 and have since agreed to measure the total coke oven gas flow rates as part of a revised plan approval proposal. We believe that final permitting will progress once the penalty has been settled. Separately, in anticipation of the 2001 CapEx program, we are conducting an engineering study of the Desulf Plant to determine improvements necessary for consistent removal efficiency.

Portland Pitch Fume Thermal Oxidizer: We have specifications out for bids for the thermal oxidizer that informed Oregon DEQ of our intent to install as a remedy to fume opacity from the existing fume scrubber. This control device was part of our original air permit plan for facility expansion and we submitted a notice to construct in early June. On a separate matter, we received a Notice of Noncompliance for phenols when a single grab sample exceeded the 0.5 mg/l maximum average but not the single average of 0.7 mg/l. We are now aware of the need to conduct additional sampling to bring the average below 0.5 mg/l.

Clairton PA Tank Compliance: We have finally received a proposed COA from PA DEP in June. This draft was very much in line with our proposals during a meeting in January, that is, a ten-year compliance timeframe and penalties relating to unimproved storage capacity. We are meeting with USS/USX to review the tank closure requirements proposed by PA DEP with respect to their site remediation consent order. We have made our comments on the PA DEP COA draft and will be asking for a follow-up meeting to discuss them. We have reviewed PA DEP's list of registered tanks and they are now in agreement with our registration list. We are now estimating the cost of the new 30-Series Tank to be installed as part of our compliance plan but expect to be near a final COA prior to submitting for funding.

Production Report:

The following table represents CM&C Division production for the month of June, 2000 compared to prior year:

Feedstocks and Products		June 00 Prod.	June 00 Ship.	YTD Prod. Total	June 99 Prod.	YTD 1999 Totals
Coal Tar Distilled, incl. tolling	Gallons	13,388,681		78,761,665	12,846,000	70,041,000
Naphthalene Produced	Pounds	13,820,000	-	74,120,000	10,639,000	72,048,000
Naphthalene Processed to PA	Pounds	11,171,000		63,774,000		
Orthoxylene Processed to PA	Pounds	7,497,000		44,669,000		
Phthalic Anhydride Produced	Pounds	18,308,000	17,641,000 *(excl. tolling)*	103,645,000	18,392,000	103,306,000
Carbon Pitch Produced	Short Tons	28,673	29,824	187,669	26,869	161,493
Carbon Pitch Melted	Short Tons	2,939	4,241	28,412	5,325	31,736
Coke Produced	Short Tons	30,575	30,750	185,679	31,785	175,967

Pitch shipments for the month through June 30th finished net 8 cars ahead for KII orders while owing Lake Charles Carbon 3 cars. Reilly tolling finished net 9 cars behind, primarily for Fonbrai due to lack of cars.

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The Clairton Plant tar still was scheduled down for four days, primarily to save costs. The pitch yield was 364 gallons of tar per ton with the TI Vessel on-line to only control beta resins. Tar QI from USX averaged 8.3% only requiring the centrifuge to operate to control UCAR penetration.

Stickney's Tar Operation ran well in June except for when No.1 Unit was down six days for retraying and tubeheater shell and refractory work. The work went as planned without injuries or loss of shipments.

Follansbee experienced only minor #4 column reboiler pump problems. The plant will schedule a pencil pitch plant outage to replace the extrusion bath conveyor belt. Portland's reduced throughput came at the announcement of Kaiser Tacoma shutdown and Meade production cuts. We have cut back shipments to four days resulting in one layoff. Woodward operated well all month.

Follansbee's 31 Still produced 13.82 million pounds of naphthalene averaging 78.05C freeze point. Follanbee shipped lower-benzene solvent (averaging 437 ppm) to Neville but was cut off at the end of the month for their four-week shutdown. We continue to work on an export order for Adchemco in Japan but are burning more solvent to reduce natural gas usage.

The Stickney PA plant reported June production as 18.3 MM pounds of refined but we are checking this figure against shipments and inventory. Oxidation was on-stream 99.72% at a reduced 71.03 gm/Nm^3 loading limited by naphthalene vaporization and air preheating. They are currently into the 'B' Train recat and oil exchange in Distillation as of July 10th. 'B' Train will be down for 30 days, distillation for 18 days, 'A' Train for 7 days and the Co-gen plant for 12 days. The on-going status will be reported daily.

Monessen production for June was 30,575 tons of coke. This was with 2,780 oven pushes. The resulting yield per oven was lower than expected owing to higher coal moisture. Monessen will be switching their filler coal supplier from the Mathies Mine that shut down to American Coal Maple Creek mine following a three-month trial.

Manufacturing Costs:

Manufacturing costs for May were $7,068,000 or 1.5% under estimate but $314M over program due to increased steam and gas costs and additional maintenance expense at Follansbee's effluent plant and Monessen's desulf plant. We continue to cut back on all overtime, check gas usage efficiencies and third party costs to offset a projected 33% increase in energy costs above program. Year to date we are at $42,144,000, or 4% over a program of $40,478,000.

Personnel / Labor/ Training/ Gainsharing:

We are pleased to announce that Tim Shannon was promoted as Tar Plant Superintendent at Clairton. Also, we welcome Linda Beall to the Koppers Clairton Plant as Accounting Clerk.

Dick Wagner was promoted to PAA Operations Supervisor at Stickney.

Ron Smith is working with Jim Burkhart to accelerate both hiring and retention of hourly personnel at Monessen.

The Stickney IMPACTS Gainsharing Plan made its first payout in June with an average payout of $46 per employee.

The CM&C Plant Managers got together in June to discuss SH&E issues, 2000 YTD business results and year-end planning. My thanks to everyone who contributed to making this meeting a success.

Capital Projects:

- Clairton 30 Series Tank

Tank design was finalized and construction bid specs were issued in June for project bids. Bids are due back by mid-July to prepare the capital request. As mentioned previously, PADEP Tank Reg consent order should be completed prior to requesting for capital funds in August.

- Follansbee North Dike Farm Spill Control

I have received the capital request and will be submitting it in July for approval following a final project team meeting. This project is part of the EPA-approved Follanbee's Release Prevention Control Action Plan submitted in January of 1999.

- Follansbee Fume System Spill Control

As an item in the aforementioned Action Plan, this project was approved for $46,200 in April and is now completed. The capital will be closed when all the bills are received.

- Follansbee Base Plant Rebuild

We are planning to test a continuous base washing pilot plant for both the solvent only stream and the whole BFO stream with the concept of removing all tar bases to improve both naphthalene and PAA quality and throughput. The capital preauthorization for the test work has been approved and Dave Wible will be ordering the necessary equipment during Carl Mueller's assignment to assist in the Stickney 'B' Train recat operation.

- Portland Thermal Oxidizer

We have committed to Oregon DEQ to install a fume thermal oxidizer by June of 2001. Harmarville Engineering has submitted specifications for bids for the thermal oxidizer in preparation of a capital estimate.

- Stickney PA Lonza Residue Concentrator

Edited from Jim Lamb's report of July 10,2000: The first batch of preflash bottoms was processed through the west exhauster on June 28. PAA recovery as a percentage of the total available PAA in the preflash bottoms (based on NV analysis) was between 98 and 99%. The full batch cycle times when adjusted for delays averaged 16 hours.

The normal start-up problems were encountered. The feed tank circulation pump started leaking at the mechanical seal shortly after starting; the second stage of the west ejector system was leaking oil from the jacket into the process; a sight glass from the old residue system broke while the face flange was being tightened; some unforeseen batch control related problems were experienced; preheating the exhauster before charging caused the rupture disc burst; the exhauster level probe designed by Lonza gives false high level indication;etc.. All normal start-up problems.

Congratulations to Jim Lamb and everyone at Stickney involved for completing this important cost-saving project!

Expenditures to date: $1,850,000
Open Commitments: $145,000
Bal to commit: $0
Est. Final: $1,995,000
Budget: $1,995,000

- Stickney Tar Plant Odor Control

The work to relocate the steam line through the old boiler house to make room to demo the building for locating the thermal oxidizer was performed in June. The construction permit application was sent in to the IEPA in April. Mark Cilley advised IEPA of our progress and that expected completion will be 1st Qtr. 2001.

- Woodward Wastewater Sump Spill Control

This capital was submitted and approved in May. Work is scheduled for July

If you have any questions, please advise.

J. T. Dietz

KOPPERS INDUSTRIES

INTEROFFICE CORRESPONDENCE

To:	Kevin J. Fitzgerald	From:	J. T. Dietz
Location:	K-1600	Location:	K-1650
Subject:	September 2000 Operations	Date:	October 6, 2000

This report summarizes the operating activities of the CM&C Division for September 2000. Each location manager's production and SH&E report is attached.

Safety Report:

There was one lost time accident in September. This occurred at Monessen when an electrician tripped over an extension cord injurying his knee requiring surgery. There were two (2) additional OSHA recordable incidents at Monessen – both strained backs. *Clairton, Follansbee, Portland, Stickney and Woodward had no LWD incidents or OSHA recordables.* ***Congratulations to all the Woodward employees who on September 23rd continued their outstanding safety performance by completing 12 years without a lost time accident !***

Year to date 2000 there have been eight (8) lost time accidents and fifty-two (52) OSHA recordables compared to YTD 1999 figures of nineteen (19) LWD cases and thirty-one (31) recordables. Of these, 6 LWDs and 30 recordables have been at Monessen. Our LWDC rate, including restricted duty, is at 5.0 days per 200,000 hours worked compared to 4.5 for 1999.

Progress on the safety improvement program at Monessen included posting the Safety Supervisor position internally. I will be meeting with the Union Committee in Ocotober to review safety performance and propose a safety incentive program.

I received Safety Committee and SH&E Team reports from all plants. Stickney had its Plant Performance Evaluation in September that indicated the need for requiring housekeeping as part of all job duties and equipment locations for OSHA lockout-tagout regs.

Environmental Compliance:

There were no reportable spills in September. There were no air releases due to upsets or odor complaints in July. All plants submitted their DMRs for August and weekly September analysis with one exceedance at Follansbee and ten exceedances at Stickney in September. Clairton had a routine visit from the Allegheny County Health Department. All plants submitted their plant procedures for SH&E Management System on schedule.

Progress of on-going environmental issues is as follows:

Follansbee Effluent Plant Excursions: Follansbee had one excursions in September for total cyanide with a 0.356 pounds per day monthly average compared to their limit of 0.33. On September 25 Tom Golubic, Heath Huschakl and Traci Self met with WV DEP for a permit modification. Out of this meeting we are submitting a request for suspension of enforcement pending our collection and submittal of further data. I continue to review the daily reports on the system performance.

Monessen Plan Approval Progress: In September we entered into the settlement agreement for hydrogen sulfide exceedances in the coke oven gas. As a result, we agreed to pay $ 72,600 for all H2S violations from plant start-up through June 2000. PA DEP has accepted our proposal to contribute $20,000 of this fine to a community environmental project (CEP) and have approved the project of stormwater system improvements for the City of Monessen. We believe that the final plan approval agreement will be received from PADEP soon and expect completion by year end. We received another plan approval extension until the end of January 2001. We have prepared a Desulf Plant action plan from the Eichleay Engineers study to address improvements necessary for consistent sulfur removal efficiency.

Portland Pitch Fume Thermal Oxidizer: In September we submitted to ODEQ an update of our annual emission with the inclusion of the new thermal oxidizer. This is in accordance with our agreed schedule. Engineering has selected a bid as a basis of preliminary and will submit a request for preliminary engineering funding to develop a capital request. This control device was part of our original air permit plan for facility expansion and we submitted a notice to construct in early June.

Clairton PA Tank Compliance: We have received a draft COA from PA DEP in September. The draft proposes a ten-year compliance timeframe and penalties relating to unimproved storage capacity. We were notified that there would be an initial penalty of about $8,300 assessed by year-end 2000. We expect in early October the applicability determination report for our position on process vessel designation for tar and creosote vessels. We have taken tanks V-108, 109 and 125 out of service for inspection and will be submitting a subsequent CER for repairs. We will schedule a project review meeting and expect to be prepared to request funding for the new 30 Series Tank at the November Board meeting after signing the final COA.

Stickney August MWRD Outfall Sample Exceedance: In September Stickney received the results of August samples taken daily for seven days. Six of these days showed exceedances for specific heavy aromatic hydrocarbons. We believe these to be caused by a leaking stormwater sewer line that by-passed the plant wastewater treatment system. This stormwater pipe section is currently being replaced. We have proposed sampling plan to MWRD to test our suspicions and are awaiting approval of our plan.

Production Report:

The following table represents CM&C Division production for the month of September, 2000 compared to prior year:

Feedstocks and Products		Sept. 00 Prod.	Sept. 00 Ship.	YTD Prod. Total	Sept. 99 Prod.	YTD 1999 Totals
Coal Tar Distilled, ind. tolling	Gallons	12,463,875		119,240,444	14,983,952	116,468,772
Naphthalene Produced	Pounds	9,950,000	11,570,000	102,890,000	10,910,000	104,595,000
Naphthalene Processed to PA	Pounds	9,475,000		87,357,000	9,378,000	96,725,000
Orthoxylene Processed to PA	Pounds	5,770,000		59,469,000	7,995,000	66,605,000
Phthalic Anhydride Produced	Pounds	14,540,000	12,431,000 *(exd. tolling)*	137,810,000	15,498,000	155,382,000
Carbon Pitch Produced	Short Tons	29,811	30,035	281,414	33,340	255,510
Carbon Pitch Melted	Short Tons	3,790	3,602	40,156	4,934	47,319
Coke Produced	Short Tons	30,100	29,319	276,085	31,814	272,017

Pitch shipments for the month through the end of September finished net one car ahead for KII orders while owing Noranda ten and Rockdale five cars that were cancelled in October. Reilly tolling finished net 25 cars behind, 13 pencil pitch for Fonbrai due to distillation problems in producing 125C carbon pitch at Follansbee that was subsequently limited by pencil pitch capacity.

The Clairton Plant tar still in September required vapor line replacement but otherwise kept pace with orders. The pitch yield was 375 gallons of tar per ton without the TI Vessel on-line. Tar QI from USX averaged 6.6% only requiring the centrifuge to operate to control UCAR penetration. Clairton received high QI tar from Monessen to meet Carbide Graphite specs.

Stickney's Tar Operation ran well in September except for No. 2 Unit continues to indicate coke build-up in strainer baskets. We have studied the increased coking frequency by looking at individual tar supplies at Harmarville and none indicate lower aromaticity or solids settlement. Engineering is checking the system for flow restrictions and heating problems associated with the new burners. Stickney finished twelve cars behind on creosote orders due to lack of cars.

Follansbee's tar still continued to be plagued in September with #4 Column reboiler pumping strainer pluggage problems. It will be scheduled for decoking in October. Follansbee's #1 Still produced 145 trucks of PSB in September. In cooperation with UCAR and the possibility of switching UCAR and Alcoa Rockdale production with Clairton, Follansbee produced three rail cars in September for testing at Columbia, TN.

Portland's received liquid pitch from the fifth sailing of the Osprey Arrow without problems. The opportunity for Portland to catch up on maintenance and housekeeping was afforded by Intalco's two-week annual shutdown . Woodward operated well all month.

Follansbee's 31 Still paced Stickney PA demand produced 9.95 million pounds of naphthalene averaging 78.25C freeze point. Follanbee shipped lower-benzene solvent (averaging 310 ppm) to Neville Chemical. 31 Still will produce ahead in October to take a brief shutdown to perform routine maintenance.

The Stickney PA plant produced 14.54 MM pounds of refined PA at 90.14% on-stream for Oxidation and 89.17% for Distillation. The inlet and outlet piping around #2 Decomposer was replaced in early September and the vessel is now back in service. We continue maximizing 'A' Train naphthalene usage while tracking 31 Still operations to 'B' Train feed loading progress. The Lonza residue exhauster is in full operation with only one required to keep pace.

Portland transshipped 2,544 tons to Intalco as they built inventory as a precaution of work stoppage when their labor contract expires on October 6th.

Monessen production for September was 30,100 tons of coke. This was with 2,774 oven pushes. Yield was off and inventory built as we finished segrating nut coke for AK Steel. Received the Mathies mine coal following their restart of the mine. Monessen emptied the tar from the 12th Street tanks as part of our commitment to PA DEP and Westmoreland County.

Manufacturing Costs:

Manufacturing costs for September were $6,779,000, slightly under estimate and 1.2% over program. We continue to evaluate cutting back specific operations when orders are satisfied to reduce vacation overtime and save on utilities, particularly natural gas and steam. Year to date expenses are at $63,088,000, or 3.3% over a program of $61,096,000.

Personnel / Labor/ Training/ Gainsharing/ TQM Teams:

Ron Smith conducted a class at Clairton on employment law as part of a series of leadership courses for salaried employees.

Joe Calfe, Marion Murray and Jack Stephenson met with Follansbee in September to identify opportunities in vendor cost improvements.

Capital Projects:

- Clairton 30 Series Tank

A capital estimate request is prepared for internal review while awaiting the final PADEP Tank Reg consent order to be completed prior to requesting for capital funds in November. A project and COA review meeting will be scheduled. Permit applications have been submitted.

- Follansbee North Dike Farm Spill Control

This capital request was approved in August and final bids for the work were obtained. Construction work has to begun and will be completed by year end.

- Follansbee Base Plant Rebuild

A continuous base washing pilot plant for both the solvent only stream and the whole BFO stream was set up at Follansbee with the concept of removing all tar bases to improve both naphthalene and PAA quality and throughput. Water testing was conducted in September and oil trials will be completed in October. Separately the plant has received vessel pricing and will prepare a capital request for 2001's Program to replace one base washer vessel with the idea that it would be used in any subsequent process.

- Monessen Capital Projects

On-going capital and M&R work for plant infrastucture continued with city water line section replacement, quench tower piping and pusher and cokeside rail work.

- Portland Thermal Oxidizer

As mentioned above, projected thermal oxidizer emissions were submitted to ODEQ per our agreed schedule. Engineering has selected thermal oxidizer bid and will submit a request for preliminary engineering. This project is included in the CM&C 2001 CapEx Program.

- Stickney Tar Plant Odor Control

Engineering and construction specs will now include the PAI NESHAP tanks prior to preparing a CER. The construction permit application was sent in to the IEPA in April. Mark Cilley advised IEPA of our inclusion of the new regs into the design.

- Stickney Effluent Plant Aeration Tank Relining

The aeration tank was emptied in September following conversion of the stormwater tank to a temporary aeration tank. Original patches to the floor were discovered to require replacement that was not part of the original capital and a deviation has been received for this work.

- Woodward Wastewater Sump Spill Control

This capital was awaiting pump delivery and installation prior to closing the project. Project will close approximately $20,000 under budget. Separately Woodward submitted a CER for paving at a creosote truck loading area – a site of a previous spill.

If you have any questions, please advise.

J. T. Dietz

KOPPERS INDUSTRIES

ENVIRONMENTAL SERVICES
INTEROFFICE CORRESPONDENCE

Send To:	See Distribution	**From:**	T.I. Self
Location:	Various	**Location:**	K-1800
Subject:	**April Activities Report**	**Date:**	May 14, 1999

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KOPPERS INDUSTRIES

To:	Randy Collins	From:	T.I. Self
Location:	K-1800	Location:	K-1800
Subject:	April Environmental Activities	Date:	May 14, 1999

Clairton

KII contacted the Pennsylvania Department of Environmental Protection (PADEP) to request further clarification as to the status of Tank #7. KII regards the dismantling and refurbishing of the tank as a major modification based on the definition in the Pennsylvania code. PADEP has said the use of the existing floor of the tank for secondary containment is considered installation of a new tank. PADEP has informed KII the decision came from PADEP central office without explanation. Based on the KII request for clarification, PADEP –Southwest region is awaiting a response from PADEP central office in Harrisburg. KII will amend the registration for tank #7 and approx. 31 other tanks to indicate theses tanks are exempt from regulation because the are process tanks or do not contain a regulated substance. Modification of tank #7 will continue.

Mark Urbassik-KU resources assisted KII in drafting a tank program for the facility. The facility must complete in-service inspections for approx. 61 tanks by October 11, 1999. Out of service inspections must be completed by October 11, 2000. The out of service inspections requires the tanks to be cleaned, inspected and repaired before placing them back into service. KII has informed PADEP that it is impossible to complete out of service inspections by the October 2000 date. KII will work with PADEP to negotiate a consent agreement to close approx. 55 tanks that are no longer in use or temporarily out of service.

Follansbee

As part of the RFI conducted by Beazer, EPA-III requested submittal of an action plan to minimize the potential for alleged ongoing and future releases. KII agreed to conduct an evaluation of plant operations and provide a report of the findings. A "Release Prevention and Control Action Plan"(RPCAP) was finalized by ERM in mid January and three copies of the report were given to Beazer for inclusion in the joint response to the Agency. A detailed response to comments, DNAPL Recovery Interim Measures Work Plan and the "Release Prevention and Control action Plan" were submitted to the agency on February 10, 1998. Comments were received from U.S. EPA on June 9, 1998. KII submitted a response to these comments in August 1998. On January 27,1998 I spoke with Andrew Fan of EPA region III. EPA has concerns about the content of the plan. A conference call was held on February 17, 1999 with US EPA. EPA expressed concern that there was a high incidence of spill and equipment failure. EPA asked KII to look at railcar loading and spill history to implement a preventive maintenance program. EPA also requested KII to install alarms to prevent overfill of railcars and provide some assurance that the storage tanks are not leaking from the bottom. KII expressed concern that EPA was asking KII to clean the tanks and retrofit. KII stated that the cost would be prohibitive. EPA stated that facilities have shut down to retrofit tanks. KII asked for information on these facilities. EPA said they would review the information on other facilities and provide specific details on what they expect from KII. EPA asked that KII not act on the EPA request or conference call until a response to the RPCAP was received by KII.

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The facility received an information request from WVDEP concerning facility tanks and containment. The letter requested KII to submit a schedule for providing containment for the facility tanks. KII responded to this request by stating that a plan (RPCAP) for paving and containment has been submitted to US EPA for review and approval. KII will provide an implementation schedule upon approval by US EPA.

Beazer is continuing its investigation into appropriate disposal and remediation options concerning the weathered tar deposits on the riverbank. Beazer sent a letter to West Virginia Division of Environmental Protection on April 20, 1998, with a recommendation to not remove the tar mass. Beazer stated in the letter that a corrective measure study as part of a 3008(h) order with U.S. EPA, would evaluate corrective action alternatives for all affected media.

A permit to install application was submitted to WVDEP on September 25, 1998 for the debenzolizer unit. WVDEP returned the application for improper procedure in identifying confidential business information. KII re-submitted the application without a claim of confidential information. WVDEP granted permission to place the debenzolizer column on its foundation. The unit is in place but not operating awaiting the operating permit. The draft permit was issued for public comment on April 15, 1999. KII has reviewed the draft permit and will provide comments to WVDEP by May 14, 1999.

Gary Centrifuge

KII has received a proposal from Industrial Environmental Management, Inc. (IEMC) to provide a written NESHAP compliance plan, residual waste management plan, emergency, contingency and spill response plan and prepare a Title V permit application. The compliance plans are required for facility start-up.
KII will work with IEMC to ensure the plans are completed.

Monessen

On March 30, 1999 representatives of KII met with PADEP- Air Quality to discuss the permitting and compliance status of the facility. Plan approvals were issued in 1996 for construction of the coke oven battery operations, coke by-product recovery plant and two boilers. A reasonably available control technology permit (RACT) was issued in March 1998. Due to recent personnel changes in both KII and PADEP, the air quality permitting and compliance status of the facility is questionable. KII has received plan approval extensions coke oven batter and coke by-product recovery plant. The extensions expire July 14, 1999. KII will work with PADEP to determine the applicable permitting requirements for the plant.

Portland

A boiler permit application was submitted to ODEQ in August 1997. An additional study for the maximum potential emissions arising from combustion of #2 fuel oil was submitted to the Agency in October 1997 at the request of the permit writer. The comment period for the draft permit expired April 17, 1998 with no comments received. A meeting was held with ODEQ and emissions data for the scrubber is to be submitted by KII prior to permit issuance. KII contacted ODEQ in August 1998 to inform them that Air Compliance/Consultants Inc must make additional air emission calculations. KII has submitted a supplement to the permit application with emission calculations, on October 30, 1998. ODEQ requested that KII revise the maximum potential emission calculation to include more realistic time period for use of diesel fuel in the boiler and heater units. The estimates were revised to account for use of diesel fuel during periods when natural gas is unavailable. On December 8, 1998, ODEQ requested additional information –Hazardous Air Pollutant (HAP) calculations, tank design and vapor

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pressure data for existing tanks. The information was submitted to ODEQ on December 29, 1998. ODEQ has issued a draft permit for public comment. KII submitted comments to correct errors in the draft permit. The comment period closed on March 11, 1999. ODEQ will need to re-draft the permit in order to address the permit conditions based on business conditions. The permit writer stated the application would not be placed for public comment again. The permit should be issued by mid June. A permit condition will be added to the permit for source testing of the fume system.

KII and Northwest Natural Gas (NWNG) met with ODEQ concerning the proposed method for pile and tank installation. ODEQ has requested installation of monitoring wells downgradient of the tank location. The results of the groundwater-monitoring program will be used to evaluate whether additional wells may be installed in the future.

Woodward Tar

A proposal from Air Compliance Consultants (ACCI) to perform emission testing on the tar still is in review by KII. The data obtained will be used to determine if it is feasible to apply for a synthetic minor permit. ACCI will conduct test on the fume and incinerator in order to obtain accurate measurements for benzene and naphthalene emissions. The Jefferson County Health department expressed concerns about the testing and warned KII that the information would be used to determine compliance with existing air quality permits.

Beazer East Inc. (BEI) scheduled a facility visit for representatives of US EPA and ADEM. Visit was scheduled without consent of KII. BEI has been informed that access to the facility will not be permitted without the prior consent of KII. BEI has cancelled the meeting because a response was not received from ADEM or US EPA to re-schedule the visit.

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the upper sand unit to depths of approximately 30 to 40 feet. Some lenses of sand were observed in the clayey silt unit. The clayey silt unit is likely an aquitard. A silty sand with sandy silt unit underlies the clayey silt unit to approximate depths of 48 to 58 feet at the Koppers site. A dense unit is present at depths of between 53 and 58 feet below the site; the nature of the unit indicates that it is either basalt bedrock or cemented coarse sediments of the Troutdale Formation. This unit is the proposed bearing surface for the pile foundations. Ground water was observed at depths of approximately 6 to 14 feet in explorations completed near the proposed tank locations.

Manufactured gas plant residues are known to be present in the subsurface of the Gasco facility, including the portion leased by Koppers, based on a 1996 study by HAI for Northwest Natural Gas Company. The contaminants are reported to include constituents that are more dense than water, and thus may have a significant gravity-controlled or vertical component of flow. Subsurface contamination at the Koppers site appears to extend into the clayey silt unit to approximate depths of between 17 and 27 feet below grade. Dense, nonaqueous-phase liquid (DNAPL) was observed in the upper sand unit and in the clayey silt unit to depths of 27 feet in explorations completed at the proposed locations of the aboveground storage tanks.

IDENTIFIED ISSUES

Northwest Natural Gas is currently conducting a remedial investigation/feasibility study (RI/FS) at the Gasco facility under an agreement with the DEQ Voluntary Cleanup Program. DEQ and Northwest Natural Gas have requested that the potential effects driven pile foundations have on subsurface contamination and future remediation at the site be evaluated. Specific issues that Koppers was requested to evaluate in the May 12, 1997 meeting include:

1. Potential effects that construction of the tanks may have on future remediation of subsurface contamination detected at the site;
2. The potential for driven-steel pile foundations to result in cross-contamination of deeper zones at the site. In particular, the possibility of contamination being introduced into the lower sand unit by the piles was identified as an issue.

Our evaluation of each of these issues is summarized below.

EVALUATION OF ISSUES

EFFECTS ON POSSIBLE REMEDIES

Construction of the tanks and associated containment and foundation structures will preclude implementation of a remedy in the vicinity of the proposed tanks that involves excavation of contaminants unless the tanks were removed. However, it is our opinion that construction of the tanks will not significantly interfere with available in-situ remedial technologies or removal technologies such as DNAPL recovery and pump and treat. Construction of the tanks may affect

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the cost of implementing certain technologies. This is because designing a system that will hydraulically influence the entire area overlain by the tanks and concrete pads may require a different design than if the tanks were not constructed.

POTENTIAL CROSS-CONTAMINATION FROM PILE DRIVING

We have identified two potential mechanisms that could introduce contaminants into deeper strata by driving piles at the site. These include (1) driving contaminated soil ahead of a pile, and/or (2) creating a conduit or preferential pathway for vertical flow of contaminants that are heavier than water. These are discussed below.

Driving Contaminated Material Ahead of Piles

It is our opinion that the volume of contaminated material that could be pushed ahead of a pile is minimal, based on the exposed cross-sectional area of the pile. We believe it is probable that all contaminated material would be pushed aside prior to the pile completely penetrating the clayey silt unit. However, in order to force the displacement of soil from under the pile tips, we recommend that cone-shaped end plates be welded to all piles to minimize the likelihood of contaminants being pushed ahead of the piles. This technique was used during construction of the Pacific Gas Transmission Company (PGT) headquarters because of the potential presence of subsurface contamination associated with the former Lincoln Steam Plant and other industries in the South Waterfront Redevelopment Area in southwest Portland.

Creation Of A Preferential Flow Pathway Next to Piles

The possibility of creating a preferential flow pathway through the clayey silt unit for downward migration of DNAPL along the piles was identified as an issue to be evaluated prior to construction of the tanks. The hypothesized mechanism for creation of a preferential flow pathway would be disturbance of the soil by fracturing or creation of void space next to the pile during driving activities such that the hydraulic conductivity of the soil would be increased. Offsetting this potential fracturing is the compression which occurs in the surrounding soils as the piles is forced through the soil. In order to minimize the potential for creation of a flow path along the sides of piles, the conical closure plates will be fabricated to allow welding of the plate to the pile without protrusion of the weld beyond the edge of the piles. Full penetration welds will be used to provide a watertight joint between the closure plate and the pile walls.

Displacement piles driven through saturated fine grain soils (silts and clays), such as those which exist at depths from about 20 to between 35 and 40 feet at the tank locations, create a supersaturated condition (excess pore pressure) in the zone of soil surrounding the pile. As this excess pressure diminishes, an increased adhesion develops between the soil and the pile wall. The extent to which this "bond" develops can be demonstrated by test-pile driving. The resistance to penetration (blows per foot) is recorded when the pile is initially driven. After a

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waiting period 12 to 24 hours or more, the pile is redriven and the number of blows required to break the bond between soil and pile is recorded. The extent to which a bond develops is demonstrated by the change in blow counts during the initial driving and the blow counts required to restart the pile. In our opinion, the adhesion of the clayey silt to the piles will result in permeability characteristics along the sides of the piles which are comparable to the vertical permeability characteristics of the undisturbed soil stratum.

CONCLUSIONS

We have, as part of this evaluation, made numerous inquiries and researched sources (as has the Koppers staff) for possible documentation of monitoring the effects of installing piles in contaminated ground conditions such as at this site. Other than limited personal experience, we have not found any documented tests or studies that address this issue. We do have direct experience on a number of projects where piles were driven through relatively impermeable layers into water bearing strata under artesian pressure. In this situation, flow could develop upward along any pathways created around the piles. We have not, however, observed any upward flow of water around piles even in situations where the artesian pressure exceeded the depth to the top of the aquifer. We consider this a good indication of the sealing which occurs around a pile driven through fine grain soils such as exists on the Koppers site.

We conclude, therefore, that the likelihood of cross-contamination of deeper soil strata as the result of pile driving is remote and that this likelihood is too small to be quantified based on current experience. We believe, further, that the measures which will be taken in preparing the piles for driving and during driving will reduce the potential for cross-contamination to a level below that which exists in the normal test drilling and hole closure procedures required by DEQ.

Koppers019819

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If you have any questions about this letter, please contact either Jack Tuttle or Walter Burt at (503) 624-9274.

Yours very truly,

GeoEngineers, Inc.

Walter C. Burt, R.G.
Senior Hydrogeologist

Jack K. Tuttle, P.E.
Principal

WCB:JKT:mln
Document ID: 58230011.deq

Four copies submitted

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August 13, 1997

Consulting Engineers and Geoscientists
Offices in Washington, Oregon, and Alaska

Koppers Industries
1005 William Pitt Way
Pittsburgh, Pennsylvania 15238

Attention: Mr. James Dietz

Evaluation of Environmental Concerns
Pile Foundations for Coal Tar Pitch Storage Tanks
Koppers Industries, Inc. Facility
7540 Northwest St. Helens Road
Portland, Oregon
File No. 5823-001-43

INTRODUCTION

GeoEngineers' evaluation of environmental concerns related to pile foundations proposed for three new coal tar pitch storage tanks at the Koppers Industries, Inc. (Koppers) facility is presented in this letter. The site is located on a leased portion of Northwest Natural Gas Company's Gasco facility at 7540 Northwest St. Helens Road in Portland, Oregon. The environmental issues addressed in this letter were initially discussed between representatives of the Oregon Department of Environmental Quality (DEQ), Northwest Natural Gas Company, Hahn and Associates (HAI), Koppers and GeoEngineers in a meeting on May 12, 1997.

Koppers proposes to construct three above-ground storage tanks at the site for bulk storage of imported coal tar pitch. The proposed tanks will be 70 feet in diameter, 50 feet high and will each be capable of storing approximately 6,200 metric tons of coal tar pitch. Each tank will be constructed on a 4-foot-thick insulated concrete pad. A concrete spill containment enclosure will be constructed around each tank. The tanks, concrete pads and enclosures will be supported on driven steel pile foundations. The foundation of each tank will consist of approximately 80 end-bearing piles driven to the competent bearing stratum defined by our 1997 explorations at a depth of approximately 50 to 60 feet below the ground surface.

The Koppers site is mantled by a stratum of generally fine to medium sand and silty sand to approximate depths of 15 to 20 feet below grade. The upper portion of this unit may be hydraulic dredge fill. A unit of moderately compressible silt, clayey silt and silty clay underlies

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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

April 1, 2003

KOPPERS INC
ATTN: AMOS KAMERER
7540 NW ST HELENS ROAD
PORTLAND OR 97210-3663

Portland Plant
CONTROLLED DOCUMENT
Date: 4-14-03
Signature:

Re: Permit Transfer/Name Change
Site: Koppers Industries, Inc.
File No. 47430
Multnomah County

Dear Mr. Kamerer:

We have received your application and the appropriate fees for a name change of the National Pollutant Discharge Elimination System (NPDES) Permit Number 101642 (file no. 47430) for Koppers Industries, Inc. located at 7540 NW St. Helens Rd. in Portland, Oregon.

The permit referenced above has been changed from Koppers Industries, Inc. to Koppers Inc. effective upon receipt of name change form, April 1, 2003.

A copy of the permit is enclosed. Please read it carefully as this becomes your official permit.

Should you have any questions or concerns regarding this action, please contact Annie Hill at (503) 229-5438.

Sincerely,

Robert P. Baumgartner
Water Quality Manager
Northwest Region

cc: T. Self
Copy for your file

amh
Enclosure
cc: Valerie Ross, DEQ/HQ
Elliot Zais, DEQ/NWR
EPA

RECEIVED
APR 8 2003
KOPPERS INDS, INC.
PORTLAND OR

Permit Number: 101642
Expiration Date: Jan 31, 2004
File Number: 47430

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

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 Inc.
~~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:

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

FEB 03 1999

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

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

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, 20th 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.

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

February 6, 2008

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987

RE: 2007 Annual Emission Report
Permit # 26-2930

Attention: Catherine Blaine
Permit Coordinator
Northwest Region Office

Enclosed please find the 2007 annual emission report (one original and one copy) for Koppers Inc., 7540 NW Saint Helens Road, Portland, OR. 97210-3663. As required, the report includes the following:

1. Annual throughput of coal tar pitch: 23,942 tons
2. Annual throughput of heavy oil: 458 tons
3. Total boiler operating time: 2,623 hours
4. Total hot oil operating time: 7,700 hours (3,330 hours for E-170 & 4,370 hours for E-270)
5. Average plant operating schedule: Monday through Saturday, 15 hours/day.
6. Emission calculations Reported: Summary, CO, NOx, PM10, SO2 and VOC.
7. Chem Cad Analysis is also included.
8. Summary of 2007 maintenance performed on the fume recovery system.
9. There were no odor complaints during 2007.

If you have any questions, I can be reached at 503-286-3681 or via e-mail at turnertj@koppers.com

Sincerely,

T. L. Turner
General Foreman

Enclosures

CC: T. Self, KI
S. Flynn, KI

ODEQ AIR Permit 2007 Through-put Northwest Terminal - All Quantities shown are in pounds

Movement	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
T-65 to Cars	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to Cars	0	0	0	0	0	0	1897900	2056400	1543301	1205300	1374100	1878900	9955901
T-68 to Trucks	2557800	2774160	2702330	2723100	3188700	3554360	2763220	3885030	3172780	4058538	3023070	3365230	37768318
Cars to T-68	0	159233	0	0	0	0	0	0	0	0	0	0	159233
T-65 to T-68	0	0	0	0	0	0	0	0	0	0	0	0	0
T-65 to T-200	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to T-68	2670810	2604325	2583831	2737508	3239846	3425878	2988115	3528824	3135778	4067871	3180622	3137031	37300439
HO T-33 to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-33 to T-200	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-33 to T-68	56700	63900	69750	32400	26550	17100	27000	22950	24300	36450	43200	40500	460800
HO cars to T-33	0	0	292600	0	0	0	0	0	0	0	162600	0	455200
HO cars to T-67	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-67 to T-33	0	0	0	0	0	0	0	0	0	0	0	0	0
Vessel to T-200	0	10427774	0	0	11092211	0	0	9451000	0	9519443	0	10302512	50792940
Solid to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
innage T-33 (24')	7	3	17	15	13.33	12.25	10.5	9	7.5	5.25	12.75	10.25	
innage T-67 (29')	4	4	4	4	4	4	4	4	4	4	4	4	
					Hours of Operation								
E-170	280	270	292	247	283	259	245	295	231	294	316	318	3330
E-270	360	371	303	322	418	301	289	382	285	442	398	499	4370
Boiler	268	211	181	170	262	182	171	258	176	247	217	280	2623
Fume System	169	185	147	150	211	169	151	212	147	189	172	185	2087

Koppers019836

January 2007 - Decemder 2007 Annual Emissions Summary

Emission Unit	CO	NOx	PM10	SO2	VOC
Atlas Boiler	368.48	1473.91	78.96	27.37	29.31
Hot Oil Heater	148.89	708.99	53.17	18.43	29.31
Hot Oil Heater (New)	761.77	1011.53	93.66	32.47	34.77
Fume Recovery System	0.00	0.00	0.00	0.00	2859.19
Tank 33	0.00	0.00	0.00	0.00	2.28
Tank 67	0.00	0.00	0.00	0.00	0.01
Fugitives	0.00	0.00	0.00	0.00	207.44

Plant Total	CO	NOx	PM10	SO2	VOC
Pounds/Yr	1279.13	3194.43	225.79	78.28	3162.30
Tons/Yr	0.64	1.60	0.11	0.04	1.58
Allowable (Tons/Yr)	99	39	N/A	39	39

January 2007 - Decemder 2007 Annual Emissions Summary

Emission Unit	CO	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07.
Atlas Boiler	368	41	29	28	28	36	24	16	32	23	37	39	35
Hot Oil Heater	149	15	12	13	12	12	11	13	12	11	13	12	13
Hot Oil Heater (New)	762	78	63	63	67	67	48	52	60	47	74	64	80
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	CO
Pounds/Yr	1279.13
Tons/Yr	0.64
Allowable (Tons/Yr)	99

Koppers019838

January 2007 - Decemder 2007 Annual Emissions Summary

Emission Unit	NOx	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
Atlas Boiler	1474	164	118	111	111	146	95	66	126	90	149	158	141
Hot Oil Heater	709	70	58	60	59	59	52	61	55	54	62	57	61
Hot Oil Heater (New)	1012	104	83	83	89	90	63	69	80	63	98	85	106
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	NOx
Pounds/Yr	3194.43
Tons/Yr	1.60
Allowable (Tons/Yr)	39

Koppers019839

January 2007 - Decemder 2007 Annual Emissions Summary

Emission Unit	PM10	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
Atlas Boiler	79	9	6	6	6	8	5	4	7	5	8	8	8
Hot Oil Heater	53	5	4	5	4	4	4	5	4	4	5	4	5
Hot Oil Heater (New)	94	10	8	8	8	8	6	6	7	6	9	8	10
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	PM10
Pounds/Yr	225.79
Tons/Yr	0.11
Allowable (Tons/Yr)	N/A

Koppers019840

January 2007 - Decemder 2007 Annual Emissions Summary

Emission Unit	SO2	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
Atlas Boiler	27	3	2	2	2	3	2	1	2	2	3	3	3
Hot Oil Heater	18	2	2	2	2	2	1	2	1	1	2	1	2
Hot Oil Heater (New)	32	3	3	3	3	3	2	2	3	2	3	3	3
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	SO2
Pounds/Yr	78.28
Tons/Yr	0.04
Allowable (Tons/Yr)	39

Koppers019841

January 2007 - Decemder 2007 Annual Emissions Summary

Emission Unit	VOM	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
Atlas Boiler	29	3	2	2	2	3	2	1	3	2	3	3	3
Hot Oil Heater	29	3	2	2	2	3	2	1	3	2	3	3	3
Hot Oil Heater (New)	35	4	3	3	3	3	2	2	3	2	3	3	4
Fume Recovery System	2859	232	253	201	206	289	232	207	290	201	259	236	253
Tank 33	2	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	207	8	27	8	8	30	9	10	29	10	30	10	30

Plant Total	VOC
Pounds/Yr	3162.30
Tons/Yr	1.58
Allowable (Tons/Yr)	39

Koppers019842

Stream No.	1	33	20	5
Name	Pitch Fumes	Heavy Oil	Vap Totalizr	Minus Water
- - Overall - -				
Molar flow lbmol/ mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/ mo	24.7000	38289.0352	5062.2417	3585.6523
Temp F	400.0000	200.0000	200.0000	200.0000
Pres psia	14.7000	14.7000	14.7000	14.7000
Vapor mole fraction	0.0000	0.0000	0.0000	0.0000
Enth MMBtu/ mo	0.0114518	3.35397	-8.37564	1.51017
Tc F	1293.1027	1217.8970	874.6153	952.4783
Pc psia	395.1926	2408.7273	4633.7319	454.2526
Std. sp gr , wtr = 1	1.049	1.092	1.063	1.091
Std. sp gr , air = 1	9.046	5.669	1.706	6.043
Degree API	3.4243	-1.9726	1.6691	-1.7662
Heating values (60 F)				
Gross Btu/lbmol	4.308E+006	2.593E+006	5.878E+005	2.940E+006
Net Btu/lbmol	4.162E+006	2.492E+006	5.540E+005	2.847E+006
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9831	64.6572	63.1629	64.5217
Actual vol ft3/mo	0.4335	592.1855	80.1459	55.5728
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7763	88499.5000	38878.5859	7774.8315
- - Liquid only - -				
Molar flow lbmol/mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/mo	24.7000	38289.0352	5062.2417	3585.6523
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9830	64.6572	63.1629	64.5217
Actual vol gpm	0.0540	73.8394	9.9934	6.9294
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7763	88499.5000	38878.5859	7774.8315
Cp Btu/lbmol-F	132.7899	72.3780	28.2225	68.6495
Z factor	0.0104	0.0086	0.0021	0.0067
Visc cP	0.8220	1.761	0.4025	1.251
Th cond Btu/hr-ft-F	0.0624	0.0790	0.1258	0.0746
Surf tens dyne/cm	30.2345	40.3694	41.1704	34.4760

Stream No.	12
Name	CIrculation
- - Overall - -	
Molar flow lbmol/mo	212.7850
Mass flow lb/mo	51290.7813
Temp F	199.9745
Pres psia	14.7000
Vapor mole fraction	0.0000
Enth MMBtu/mo	16.6586
Tc F	1274.0345
Pc psia	454.6739
Std. sp gr , wtr = 1	1.079
Std. sp gr , air = 1	8.323
Degree API	-0.4005
Heating values (60 F)	
Gross Btu/lbmol	3.936E+006
Net Btu/lbmol	3.793E+006
Average mol wt	241.0452
Actual dens lb/ft3	63.6808
Actual vol ft3/mo	805.4355
Std liq gpm	95.0009
Std vap 60F scf/mo	80747.3438
- - Liquid only - -	
Molar flow lbmol/mo	212.7850
Mass flow lb/mo	51290.7813
Average mol wt	241.0452
Actual dens lb/ft3	63.6808
Actual vol gpm	100.4294
Std liq gpm	95.0009
Std vap 60F scf/mo	80747.3438
Cp Btu/lbmol-F	101.7720
Z factor	0.0124
Visc cP	3.336
Th cond Btu/hr-ft-F	0.0735
Surf tens dyne/cm	40.0285

	MAIN GAS SUPPLY		E-270 (NEW H.O.HEATER)				E-170 (OLD H. O. HEATER)				BAL./BOILER		MAIN	E-270(NEW)		E-170(OLD)		BOILER	
DATE	READING	USAGE	READING	UNITS	USAGE	%	READING	UNITS	USAGE	%	USAGE	%	TOTAL	TOTAL	%	TOTAL	%	TOTAL	%
Dec-05	463966	-555552	18472	-141172	-237240	0.427	52130	-79221	-133131	0.240	-185182	0.333	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Jan-06	494946	30980	26918	8446	14194	0.458	56454	4324	7266	0.235	9520	0.307	30980	14194	0.458	7266	0.235	9520	0.307
Feb-06	518572	23626	32855	5937	9977	0.422	59550	3096	5203	0.220	8446	0.357	54606	24171	0.443	12469	0.228	17966	0.329
Mar-06	543628	25056	38993	6138	10315	0.412	62967	3417	5742	0.229	8999	0.359	79662	34486	0.433	18211	0.229	26965	0.338
Apr-06	564690	21062	45415	6422	10792	0.512	65867	2900	4873	0.231	5396	0.256	100724	45278	0.450	23085	0.229	32361	0.321
May-06	585770	21080	51001	5586	9387	0.445	69071	3204	5384	0.255	6308	0.299	121804	54665	0.449	28469	0.234	38670	0.317
Jun-06	607860	22090	57164	6163	10357	0.469	72217	3146	5287	0.239	6446	0.292	143894	65022	0.452	33756	0.235	45116	0.314
Jul-06	625752	17892	61769	4605	7739	0.433	75232	3015	5067	0.283	5087	0.284	161786	72761	0.450	38822	0.240	50202	0.310
Aug-06	648682	22930	67720	5951	10001	0.436	78314	3082	5179	0.226	7750	0.338	184716	82762	0.448	44002	0.238	57953	0.314
Sep-06	665246	16564	72140	4420	7428	0.448	80887	2573	4324	0.261	4812	0.291	201280	90190	0.448	48326	0.240	62765	0.312
Oct-06	688786	23540	78439	6299	10585	0.450	84067	3180	5344	0.227	7611	0.323	224820	100775	0.448	53670	0.239	70375	0.313
Nov-06	713927	25141	85211	6772	11380	0.453	88120	4053	6811	0.271	6950	0.276	249961	112155	0.449	60481	0.242	77325	0.309
Dec-06	741981	28054	91698	6487	10901	0.389	91986	3866	6497	0.232	10656	0.380	278015	123057	0.443	66978	0.241	87981	0.316
Jan-07	774122	32141	99475	7777	13069	0.407	96236	4250	7142	0.222	11930	0.371	310156	136126	0.439	74120	0.239	99910	0.322
Feb-07	799159	25037	105727	6252	10506	0.420	99766	3530	5932	0.237	8598	0.343	335193	146633	0.437	80052	0.239	108509	0.324
Mar-07	823889	24730	111963	6236	10480	0.424	103412	3646	6127	0.248	8123	0.328	359923	157112	0.437	86179	0.239	116632	0.324
Apr-07	849204	25315	118620	6657	11187	0.442	107009	3597	6045	0.239	8083	0.319	385238	168299	0.437	92224	0.239	124715	0.324
May-07	877179	27975	125340	6720	11293	0.404	110621	3612	6070	0.217	10612	0.379	413213	179592	0.435	98294	0.238	135327	0.327
Jun-07	897415	20236	130102	4762	8003	0.395	113788	3167	5322	0.263	6911	0.342	433449	187595	0.433	103616	0.239	142239	0.328
Jul-07	917090	19675	135260	5158	8668	0.441	117493	3705	6226	0.316	4781	0.243	453124	196263	0.433	109842	0.242	147019	0.324
Aug-07	942025	24935	141250	5990	10066	0.404	120862	3369	5662	0.227	9207	0.369	478059	206329	0.432	115504	0.242	156226	0.327
Sep-07	962004	19979	145954	4704	7905	0.396	124125	3263	5483	0.274	6590	0.330	498038	214234	0.430	120987	0.243	162817	0.327
Oct-07	991554	29550	153296	7342	12338	0.418	127913	3788	6366	0.215	10846	0.367	527588	226572	0.429	127353	0.241	173663	0.329
Nov-07	1019518	27964	159644	6348	10668	0.381	131351	3438	5778	0.207	11519	0.412	555552	237240	0.427	133130	0.240	185182	0.333
Dec-07	1049362	29844	167570	7926	13320	0.446	135061	3710	6235	0.209	10290	0.345	585396	250560	0.428	139365	0.238	195471	0.334
Jan-08	1092800	43438	176948	9378	15760	0.363	139286	4225	7100	0.163	20578	0.474	628834	266319	0.424	146465	0.233	216049	0.344

Koppers019845

Turner TJ

From: Dye, Gary [gld@nwnatural.com]

Sent: Tuesday, February 05, 2008 2:39 PM

To: J.Patrick_Stevens@golder.com; trey.harbert@am.dynonobel.com; Turner TJ; patrickloupin@boisepaper.com

Subject: 2007 NW Natural Sulfur and Gas Quality Report

Please find attached the 2007 NW Natural Sulfur and Gas Quality Report:

<<2007 SI SULF SUMMARY.xls>>
If you have any questions, please contact me.

Gary L. Dye
Engineering Supervisor, Gas Measurement/Gas Supply
NW Natural
One Pacific Square
220 NW 2nd Avenue
Portland, OR 97209
503.226.4211 ext. 4603
503.970.4249 (cell)
503.220.2421 (fax)
Gary.Dye@NWNatural.com
5039704249@mmode.com (text message)

2007 MONTH	Sauvie Is. S [Lb/MMSCF]	
	H_2S	TOTAL S
JAN	0.00	0.34
FEB	0.00	0.41
MAR	0.00	0.16
APR	0.02	0.37
MAY	0.01	0.39
JUN	0.00	0.41
JUL	0.00	0.35
AUG	0.00	0.39
SEP	0.03	0.27
OCT	0.01	0.39
NOV	0.00	0.38
DEC	0.00	0.34
Max	0.025	0.41
Average	**0.01**	**0.35**
Min	0.00	0.16
Spread	0.03	0.26

Sauvie Island Hydrocarbon Analysis			
SPG	BTU/SCF	% N2	% CO2
0.589	1,036	0.78	0.78
0.593	1,044	0.62	0.77
0.589	1,040	0.66	0.65
0.587	1,040	0.64	0.55
0.586	1,038	0.61	0.57
0.586	1,040	0.64	0.49
0.581	1,036	0.61	0.39
0.581	1,036	0.58	0.39
0.585	1,039	0.55	0.50
0.583	1,032	0.63	0.61
0.584	1,032	0.67	0.65
0.588	1,036	0.73	0.70
0.593	1,044	0.78	0.78
0.586	**1,037**	**0.65**	**0.59**
0.581	1,032	0.55	0.39
0.012	13	0.23	0.39

SI Sulfur [PPMw]	
H_2S	TOTAL S
0.02	7.46
0.00	9.09
0.01	3.49
0.41	8.19
0.20	8.70
0.01	9.17
0.00	7.79
0.00	8.80
0.56	6.06
0.21	8.79
0.03	8.46
0.01	7.65
0.56	9.17
0.12	**7.80**
0.00	3.49
0.56	5.68

NOTES: H_2S = hydrogen sulfide
SPG = gas specific gravity (air = 1.000)
Lb/MMSCF = pounds of sulfur per million standard cubic feet of gas
Gr/CCF = grains of sulfur per 100 standard cubic feet of gas
PPMw =parts per million of sulfur by weight
Wt% = percent of sulfur (by weight) in gas

2007 MONTH	SI Sulfur [Gr/Ccf]	
	H_2S	TOTAL S
JAN	0.00	0.23
FEB	0.00	0.29
MAR	0.00	0.11
APR	0.01	0.26
MAY	0.01	0.27
JUN	0.00	0.29
JUL	0.00	0.24
AUG	0.00	0.27
SEP	0.02	0.19
OCT	0.01	0.27
NOV	0.00	0.26
DEC	0.00	0.24
Max	0.02	0.29
Average	**0.00**	**0.24**
Min	0.00	0.11
Spread	0.02	0.18

SI Sulfur [Wt%]	
H_2S	TOTAL S
0.0000%	0.0007%
0.0000%	0.0009%
0.0000%	0.0003%
0.0000%	0.0008%
0.0000%	0.0009%
0.0000%	0.0009%
0.0000%	0.0008%
0.0000%	0.0009%
0.0001%	0.0006%
0.0000%	0.0009%
0.0000%	0.0008%
0.0000%	0.0008%
0.0001%	0.0009%
0.0000%	**0.0008%**
0.0000%	0.0003%
0.0001%	0.0006%

Koppers019847

2007	Unodorized Sauvie Island (Gr/CCF)			Odorant Added		TOTAL (lb/mmscf)	
MONTH	MCF	H_2S	Total	Lbs	lb/mmscf	H_2S	Total S
JAN	2088185	0.00	0.17	568	0.27	0.00	0.34
FEB	1693492	0.00	0.04	1657	0.98	0.00	0.41
MAR	1470024	0.00	0.03	462	0.31	0.00	0.16
APR	1309607	0.01	0.05	1050	0.80	0.02	0.37
MAY	1521698	0.01	0.02	1519	1.00	0.01	0.39
JUN	285672	0.00	0.01	305	1.07	0.00	0.41
JUL	193792	0.00	0.01	173	0.89	0.00	0.35
AUG	906970	0.00	0.01	919	1.01	0.00	0.39
SEP	823047	0.02	0.05	435	0.53	0.03	0.27
OCT	891206	0.01	0.04	797	0.89	0.01	0.39
NOV	1798451	0.00	0.04	1584	0.88	0.00	0.38
DEC	2210281	0.00	0.04	1710	0.77	0.00	0.34
Max	2210281	0.02	0.17	1710	1.07	0.03	0.41
Average	**1266035**	**0.00**	**0.04**	**932**	**0.78**	**0.01**	**0.35**
Min	193792	0.00	0.01	173	0.27	0.00	0.16
Spread	2016489	0.02	0.15	1537	0.80	0.03	0.26

Koppers019848

Fume Recovery System Maintenance Recap 2007

Date	Work Performed
1/2	Wash fluid level down 64" out added fluid to 48" out
1/12	T-200 clean all 3 vacuum breakers inspected, cleaned level indicators, vent pressure indicators
1/20	Fume pump FS-1 failure switched to FS-2 Installed backup spare to FS-2
1/22	Fume pump FS-2 failed T-102 washfluid viscous. Sent both pumps in to be rebuilt
1/22	Fume system T-102 washfluid changed out refilled to 47" out
1/22	installed rebuilt pump FS-1
2/12	Checked Fume system T-102 outage increased by 2 inches to 50 inches out
2/21	Fume System T-102 wash fluid down by 12 inches and viscous to 60" out
2/22	Wash Fluid Change out refilled to 47" out
2/23	T-200 Cleaned and inspected all 3 vacuum breakers, level indicator and vent pressure indicator
3/5	Fume systems Wash Fluid checked good
3/14	Fume system wash fluid thin base 3" low 51" out
3/15	Installed pump FS-2 rebuilt seal
3/16	Inspection of densiter pads complete minor build up
3/22	Wash fluid in fume tank T-102 6" low medium thickness
4/3	System T-102 wash fluid becoming thick 12" low 60" out
4/4	Wasdh Fluid change out refilled to 48" out
4/19	Inspected and repaired T-102 heater elements
4/27	T-102 wash fluid check 6" low Thin viscosity 54" out
5/10	Fume System pump maintenance check and servicing
5/15	Check T-200 fume system vacuum Breakers for servicability prior to ship
5/17	T-102 wash fluid becoming viscous 54" out
5/19	Fume system T-102 wash fluid change out refilled to 48" out
5/29	Inspected T-200 vacuum breakers vent/nitrogen and level indicators cleaned as needed
6/1	Check fume system medium-thin/ watery
6/5	Inspected fume system electrical heat replaced fuse
6/14	T-102 fume system medium change out refilled 55" innage
6/29	Checked fume system, wash fluid ok
7/11	Wash Fluid in T-102 down 8" thin 56" out
7/18	T-102 wash fluid down 18", thickening 66" out
7/23	Wash fluid change out refilled to 46" out
7/31	Performed maintenance check on fume system
8/12	Checked fume system T-102 thin down 6" 54" out
8/22	Checked T-102 level 8" down thin viscousity 56" out
8/28	Cleanded and inspected T-200 vacuum breakers, level indicators, and pressure indicators
8/30	checked fume Tank T-102 muddy thick consistancy 16" low and 32" in tank
9/4	Fume System medium change out refilled to 48" out
9/18	Check fume system T-102 4" low 52" out thin/watery
9/24	Checked Fume Tank T-102 wash fluid ok 64" out 34" in
10/2	Checked T-102 liquid wash fluid thin shows 64" out
10/7	Checked fume system wash fluid starting to become viscous
10/15	checked fume tank T-102 Viscous 66" out
10/16	Wash fluid change out refilled to 48" out
10/22	Inspected and cleaned vacuum breakers, level indicators and nitrogen pressure indicators for T-200 System
11/6	Preformed maintenance inspections of the demister pads minor build-up cleaned and return to service
11/9	Checked T-102 liquid thin viscousity 52" out
11/21	Wash Fluid change out refilled T-102 to 48" out
11/26	Preformed maintenance check on fume system pumps adjusted couplings
12/6	Check T-102 wash fluid is down 4" very light/thin viscousity 52" out
12/13	Check T-102 wask fluid is down 60" out thickening/viscous
12/16	Fume System wash fluid change out refilled to 47" out
12/16	Inspected and cleaned T-200 level and pressure indicators cleaned and inspected all 3 vacuum breakers
12/28	Inspected and cleaned main vacuum breakers and vent unit

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Northwest Region Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201
(503) 229-5554
FAX (503) 229 6945

January 11, 2008

Koppers Industries, Inc.
T.J. Turner
7540 NW St Helens Rd
Portland OR 97210-3663

RE: Annual report
26-2930-SI-01

This courtesy letter serves to remind you of the reporting requirement in your Air Permit. The date the report is due can be found in your permit. Some annual reports are due as early as January 31, 2008. Submittal of an annual report is a requirement of your Air Permit. Please submit an original and one copy of the completed annual report for 2007 no later than the date listed in your permit.

Oregon Department of Environmental Quality
Northwest Region Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201

The Annual Report form can also be obtained from our Web Site www.oregon.gov/DEQ. You will now be able to obtain various types of application forms as well as other forms and information from our web site. We hope that you will find this useful.

Thank you,

Catherine Blaine

Catherine Blaine
Permit Coordinator
Northwest Region Office

cb

DEQ-DC1

February 14, 2005

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987

RE: 2004 Annual Emission Report
Permit # 26-2930

Attention: Air Quality Permit Coordinator

Enclosed please find the 2004 annual emission report (one original and one copy) for Koppers Inc., 7540 NW Saint Helens Road, Portland, OR. 97210-3663. As required, the report includes the following:

1. Annual throughput of coal tar pitch: 14,034 tons
2. Annual throughput of heavy oil: 2,423 tons
3. Total boiler operating time: 2,043 hours
4. Total hot oil operating time: 6,424 hours (2,916 hours for E-170 & 3,508 hours for E-270)
5. Highest sulfur content of natural gas (no oil was used during the year): 1.85 lb/Mft3.
6. Average plant operating schedule: Monday through Friday, 15 hours/day.
7. Emission calculations: Summary, CO, NOx, PM10, SO2 and VOC.
8. Chem Cad Analysis is also included.
9. Summary of 2004 maintenance performed on the fume recovery system.
10. There were no odor complaints during 2004.

If you have any questions, I can be reached at 503-286-3681 or via e-mail at turnertj@koppers.com

Sincerely,

T. J. Turner
General Foreman

Enclosures

CC: T. Self, KII
B. Bauman, KII

February 2004 - January 2005 Annual Emissions Summary

Emission Unit	CO	NOx	PM10	SO2	VOC
Atlas Boiler	69.20	138.15	14.83	6.04	5.50
Hot Oil Heater	26.06	62.38	9.31	4.26	4.75
Hot Oil Heater (New)	149.35	93.95	18.36	7.61	6.82
Fume Recovery System	0.00	0.00	0.00	0.00	6.82
Tank 33	0.00	0.00	0.00	0.00	0.45
Tank 67	0.00	0.00	0.00	0.00	0.00
Fugitives	0.00	0.00	0.00	0.00	13.15

Plant Total	CO	NOx	PM10	SO2	VOC
Pounds/Yr	244.61	294.48	42.50	17.91	37.49
Tons/Yr	0.12	0.15	0.02	0.01	0.02
Allowable (Tons/Yr)	99	39	N/A	39	39

February 2004 - January 2005 Annual Emissions Summary

Emission Unit	CO	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Atlas Boiler	69	35	35	23	20	23	19	29	19	19	22	21	24
Hot Oil Heater	26	13	13	23	10	11	11	10	11	11	12	12	11
Hot Oil Heater (New)	149	71	79	50	45	44	59	29	44	49	54	63	49
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	CO
Pounds/Yr	244.61
Tons/Yr	0.12
Allowable (Tons/Yr)	99

Koppers019853

February 2004 - January 2005 Annual Emissions Summary

Emission Unit	NOx	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Atlas Boiler	138	138	139	90	78	91	77	115	76	76	88	86	95
Hot Oil Heater	62	62	62	51	49	50	54	48	53	53	57	55	52
Hot Oil Heater (New)	94	94	104	66	60	59	79	38	58	65	72	84	65
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	NOx
Pounds/Yr	294.48
Tons/Yr	0.15
Allowable (Tons/Yr)	39

Koppers019854

February 2004 - January 2005 Annual Emissions Summary

Emission Unit	PM10	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Atlas Boiler	15	7	7	5	4	5	4	6	4	4	5	5	5
Hot Oil Heater	9	5	5	4	4	4	4	4	4	4	4	4	4
Hot Oil Heater (New)	18	9	10	6	6	5	7	4	5	6	7	8	6
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	PM10
Pounds/Yr	42.50
Tons/Yr	0.02
Allowable (Tons/Yr)	N/A

Koppers019855

February 2004 - January 2005 Annual Emissions Summary

Emission Unit	SO2	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Atlas Boiler	6	2	2	1	1	1	1	2	1	1	2	2	2
Hot Oil Heater	4	1	1	1	1	1	1	1	1	1	1	1	1
Hot Oil Heater (New)	8	2	2	2	1	1	2	1	1	2	2	2	2
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	SO2
Pounds/Yr	17.91
Tons/Yr	0.01
Allowable (Tons/Yr)	39

Koppers019856

February 2004 - January 2005 Annual Emissions Summary

Emission Unit	VOM	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Atlas Boiler	6	3	3	2	2	2	2	2	2	2	2	2	2
Hot Oil Heater	5	2	2	2	2	2	2	2	2	2	2	2	2
Hot Oil Heater (New)	7	3	4	2	2	2	3	1	2	2	3	3	2
Fume Recovery System	7	3	4	2	2	10	238	216	171	201	249	163	218
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	13	6	7	31	5	7	9	7	5	7	24	7	23

Plant Total	VOC
Pounds/Yr	37.49
Tons/Yr	0.02
Allowable (Tons/Yr)	39

Koppers019857

Fume Recovery System Maintenance Recap

Date	Work Performed
1/14/2003	Inspected fume system demister pads, appeared OK.
1/22/2004	Took opacity reading, cleaned all 3 vacuum breakers and installed a new pressure transmitter on tank T-200
2/2/2004	Wash fluid changed.
2/15/2004	Checked system, wash fluid thickening (49" out), demister working properly
2/19/2004	Took opacity reading.
2/27/2004	Pump FS-1 showing signs of failure.
2/28/2004	Switched to pump FS-2 and replaced FS-1 with a backup pump.
3/3/2004	Pump FS-2 starting to weep, switched to FS-1.
3/4/2004	Wash fluid changed, filled to 46" out. Sent both backup pumps out for rebuilding.
3/18/2004	Took opacity reading.
3/29/2004	Wash fluid changed, filled to 44" out.
4/15/2004	Installed rebuilt pump at FS-2.
4/16/2004	Cleaned vacuum breakers, TN radar and pressure indicator's on T-200
4/20/2004	Checked wash fluid, found it OK.
4/22/2004	Took opacity reading.
5/3/2004	Wash fluid changed, filled to 46" out.
5/11/2004	Did maintenance service on pumps FS-1 and FS-2
5/20/2004	Took opacity reading.
6/5/2004	Pump FS-1 starting to become noisy.
6/14/2004	Wash fluid changed, filled to 45" out.
6/16/2004	Made repairs to FS-1 pump assembly
6/22/2004	Took opacity reading.
7/1/2004	Cleaned all 3 vacuum breakers on T-200.
7/2/2004	Cleaned the pressure indicator on T-200.
7/5/2004	Repaired the nitrogen control lines at the fume vent control valve on T-200.
7/14/2004	Turned on the steam heat to the demister.
7/19/2004	Wash fluid changed, filled to 46" out.
7/20/2004	Took opacity reading.
8/5/2004	Seal faliure on pump FS-1, switched to FS-2.
8/17/2004	Pulled FS-1 pump and sent ou for rebuilding.
8/23/2004	Wash fluid changed, filled to 46" out.
8/24/2004	Took opacity reading.
9/23/2004	Took opacity reading and installed rebuilt FS-1 pump.
9/27/2004	Cleaned and serviced fume tank area and equipment.
9/28/2004	Checked wash fluid, found it OK.
10/4/2004	Wash fluid changed, filled to 44" out.
10/5/2004	Cleaned all 3 vacuum breakers on T-200.
10/6/2004	Cleaned the pressure and level inticators on T-200.
10/27/2004	Took opacity reading.
11/12/2004	Pump FS-2 seal faliure, switched to FS-1.
11/15/2004	Wash fluid changed, filled to 48" out.
11/16/2004	Sent FS-2 pump out for rebuilding.
11/28/2014	Installed rebuilt pump at FS-2.
12/7/2004	Did a service check on pumps FS-1 and FS-2.
12/13/2004	Wash fluid changed, filled to 47" out.
12/16/2004	Did a maintenance check on the demister,pulled pads for cleaning and replaced them.
12/17/2004	Inspected demister.
12/28/2004	Checked rume system, fluid appears to be thickening.

Stream No.	1	33	20	5
Name	Pitch Fumes	Heavy Oil	Vap Totalizr	Minus Water
- - Overall - -				
Molar flow lbmol/ mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/ mo	24.7000	38289.0352	5062.2417	3585.6523
Temp F	400.0000	200.0000	200.0000	200.0000
Pres psia	14.7000	14.7000	14.7000	14.7000
Vapor mole fraction	0.0000	0.0000	0.0000	0.0000
Enth MMBtu/ mo	0.0114518	3.35397	-8.37564	1.51017
Tc F	1293.1027	1217.8970	874.6153	952.4783
Pc psia	395.1926	2408.7273	4633.7319	454.2526
Std. sp gr , wtr = 1	1.049	1.092	1.063	1.091
Std. sp gr , air = 1	9.046	5.669	1.706	6.043
Degree API	3.4243	-1.9726	1.6691	-1.7662
Heating values (60 F)				
Gross Btu/lbmol	4.308E+006	2.593E+006	5.878E+005	2.940E+006
Net Btu/lbmol	4.162E+006	2.492E+006	5.540E+005	2.847E+006
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9831	64.6572	63.1629	64.5217
Actual vol ft3/mo	0.4335	592.1855	80.1459	55.5728
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7763	88499.5000	38878.5859	7774.8315
- - Liquid only - -				
Molar flow lbmol/mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/mo	24.7000	38289.0352	5062.2417	3585.6523
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9830	64.6572	63.1629	64.5217
Actual vol gpm	0.0540	73.8394	9.9934	6.9294
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7761	88499.5000	38878.5859	7774.8315
Cp Btu/lbmol-F	132.7899	72.3780	28.2225	68.6495
Z factor	0.0104	0.0086	0.0021	0.0067
Visc cp	0.8220	1.761	0.4025	1.251
Th cond Btu/hr-ft-F	0.0624	0.0790	0.1258	0.0746
Surf tens dyne/cm	30.2345	40.3694	41.1704	34.4760

Stream No.	1	33	20	5
Name	Pitch Fumes	Heavy Oil	Vap Totalizr	Minus Water
- - Overall - -				
Molar flow lbmol/ mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/ mo	24.7000	38289.0352	5062.2417	3585.6523
Temp F	400.0000	200.0000	200.0000	200.0000
Pres psia	14.7000	14.7000	14.7000	14.7000
Vapor mole fraction	0.0000	0.0000	0.0000	0.0000
Enth MMBtu/ mo	0.0114518	3.35397	-8.37564	1.51017
Tc F	1293.1027	1217.8970	874.6153	952.4783
Pc psia	395.1926	2408.7273	4633.7319	454.2526
Std. sp gr , wtr = 1	1.049	1.092	1.063	1.091
Std. sp gr , air = 1	9.046	5.669	1.706	6.043
Degree API	3.4243	-1.9726	1.6691	-1.7662
Heating values (60 F)				
Gross Btu/lbmol	4.308E+006	2.593E+006	5.878E+005	2.940E+006
Net Btu/lbmol	4.162E+006	2.492E+006	5.540E+005	2.847E+006
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9831	64.6572	63.1629	64.5217
Actual vol ft3/mo	0.4335	592.1855	80.1459	55.5728
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7763	88499.5000	38878.5859	7774.8315
- - Liquid only - -				
Molar flow lbmol/mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/mo	24.7000	38289.0352	5062.2417	3585.6523
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9830	64.6572	63.1629	64.5217
Actual vol gpm	0.0540	73.8394	9.9934	6.9294
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7763	88499.5000	38878.5859	7774.8315
Cp Btu/lbmol-F	132.7899	72.3780	28.2225	68.6495
Z factor	0.0104	0.0086	0.0021	0.0067
Visc cp	0.8220	1.761	0.4025	1.251
Th cond Btu/hr-ft-F	0.0624	0.0790	0.1258	0.0746
Surf tens dyne/cm	30.2345	40.3694	41.1704	34.4760

MONTH	2004 S.I. SENDOUT SULFUR [LB/MMCF]			
	H_2S	RSH	RS(S)R	TOTAL
JAN	0.01	0.91	0.29	1.21
FEB	0.02	0.88	0.26	1.16
MAR	0.01	1.51	0.22	1.74
APR	0.01	1.60	0.24	1.85
MAY	0.01	1.49	0.17	1.67
JUN	0.01	1.29	0.15	1.45
JUL	0.01	1.30	0.13	1.44
AUG	0.01	0.99	0.37	1.37
SEP	0.02	1.13	0.43	1.58
OCT	0.02	0.55	0.26	0.83
NOV	0.02	1.16	0.41	1.59
DEC	0.02	1.16	0.41	1.59
MAX	0.022	1.60	0.4	**1.85**
AVG	**0.01**	**1.16**	**0.28**	**1.46**
MIN	0.01	0.55	0.13	0.83
St. Dev.	0.01	0.30	0.11	0.28
Range	0.01	1.05	0.30	**1.02**

SPG
0.578
0.579
0.580
0.580
0.579
0.582
0.581
0.575
0.577
0.579
0.583
0.584
0.584
0.580
0.575
0.00
0.009

2004 S.I. SENDOUT SULFUR [PPMwt]			
H_2S	RSH	RS(S)R	TOTAL
0.23	20.6	6.55	27.34
0.45	19.8	5.86	26.16
0.23	34.0	4.95	39.17
0.23	36.0	5.40	41.65
0.23	33.6	3.83	37.66
0.22	28.9	3.37	32.53
0.22	29.2	2.92	32.36
0.26	22.4	8.37	31.08
0.45	25.5	9.77	35.73
0.50	12.4	5.77	18.71
0.49	26.0	9.14	35.63
0.49	25.92	9.12	35.53
0.50	36.0	9.77	41.65
0.33	**26.2**	**6.25**	**32.80**
0.22	12.4	2.92	18.71
0.13	6.77	2.37	6.34
0.27	23.6	6.85	22.94

NOTES:
H_2S = hydrogen sulfide
RSH = mercaptans
RS(S)R = mono-and disulfides
SPG = gas specific gravity (air = 1.000)

LB/MMCF = pounds of sulfur per million standard cubic feet of gas
GR S/CCF = grains of sulfur per 100 standard cubic feet of gas
PPMw =parts per million of sulfur by weight
WT% = percent of sulfur (by weight) in gas

MONTH	2004 S.I. SENDOUT SULFUR [GR S/CCF]			
	H_2S	RSH	RS(S)R	TOTAL
JAN	0.01	0.63	0.20	0.84
FEB	0.01	0.61	0.18	0.81
MAR	0.01	1.05	0.15	1.21
APR	0.01	1.11	0.17	1.28
MAY	0.01	1.03	0.12	1.16
JUN	0.01	0.90	0.10	1.01
JUL	0.01	0.90	0.09	1.00
AUG	0.01	0.69	0.26	0.95
SEP	0.01	0.78	0.30	1.10
OCT	0.02	0.38	0.18	0.58
NOV	0.02	0.81	0.28	1.10
DEC	0.02	0.81	0.28	1.10
MAX	0.02	1.11	0.30	1.28
AVG	**0.01**	**0.81**	**0.19**	**1.01**
MIN	0.01	0.38	0.09	0.58
St. Dev.	0.00	0.21	0.07	0.20
Range	0.01	0.73	0.21	0.71

2004 S.I. SENDOUT SULFUR [WT%]			
H_2S	RSH	RS(S)R	TOTAL
0.0000%	0.0021%	0.0007%	0.0027%
0.0000%	0.0020%	0.0006%	0.0026%
0.0000%	0.0034%	0.0005%	0.0039%
0.0000%	0.0036%	0.0005%	0.0042%
0.0000%	0.0034%	0.0004%	0.0038%
0.0000%	0.0029%	0.0003%	0.0033%
0.0000%	0.0029%	0.0003%	0.0032%
0.0000%	0.0022%	0.0008%	0.0031%
0.0000%	0.0026%	0.0010%	0.0036%
0.0000%	0.0012%	0.0006%	0.0019%
0.0000%	0.0026%	0.0009%	0.0036%
0.0000%	0.0026%	0.0009%	0.0036%
0.0000%	0.0036%	0.0010%	0.0042%
0.0000%	**0.0026%**	**0.0006%**	**0.0033%**
0.0000%	0.0012%	0.0003%	0.0019%
0.0000%	0.0007%	0.0002%	0.0006%
0.0000%	0.0024%	0.0007%	0.0023%

Koppers019861

Kamerer Amos

From: Dye, Gary [gld@nwnatural.com]
Sent: Saturday, February 12, 2005 4:33 PM
To: Kamerer Amos; 'stan.miller@spnewsprint.com'
Cc: Amies Tom (E-mail)
Subject: Revised NW Natural Monthly Sulfur Report

Importance: High

2004 SAUV ISL
SULF SUMMARYb.xl..

As you might know, Tom Amies, who has been delivering the monthly gas and sulfur reports to you in the past, retired last month. I have taken over the preparation of the monthly gas sulfur report. I realized after I sent you the report yesterday that there was an error in the specific gravity. I have corrected this error, added additional information, and offer the spreadsheet again:

<<2004 SAUV ISL SULF SUMMARYb.xls>>
I apologize for the inconvenience I might have caused. Please let me know if there is anything else you require.

Gary L. Dye

Director, Gas Measurement
NW Natural
One Pacific Square -- 4th floor
220 NW 2nd Avenue
Portland, OR 97209
Gary.Dye@NWNatural.com
(503) 226-4211 ext. 4603
(503) 970-4249 (cell)
(503) 220-2421 (fax)

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ODEQ AIR Permit 2004 Throughput Northwest Terminal - All Quantities shown are in ponuds

Movement	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
T-65 to Cars	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to Cars	0	0	0	0	0	0	0	177100	0	0	0	1367630	1544730
T-68 to Trucks	1842980	2123200	1983300	1574610	2468707	3158280	2475380	1783820	2332780	2604380	2055340	2120520	26523297
Cars to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
T-65 to T-68	0	0	0	0	0	0	0	0	0	0	0	0	0
T-65 to T-200	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to T-68	1668581	2650546	1207187	1643384	2369752	3025201	2541068	1636712	2503058	2508960	2257352	1875163	25886964
HO T-33 to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-33 to T-200	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-33 to T-68	47700	67500	23400	18900	25200	33300	33300	29700	35100	39600	51300	43200	448200
HO cars to T-33	0	112700	0	0	0	0	99900	0	0	0	151000	0	363600
HO cars to T-67	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-67 to T-33	0	0	0	0	0	0	0	0	0	0	0	0	0
Vessel to T-200	0	0	14435522	0	0	0	0	0	0	9258970	0	9219011	32913503
Solid to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
Outage T-33 (24')	15.5	12	13.58	15	16.5	18.6	14	15.75	18	20.75	9.25	6.9	
Outage T-67 (29')	29'	29	29	29	29	29	29	29	29	29	29	29	
					Hours of Operation								
E-170	292	259	250	225	217	275	220	217	222	259	229	251	2916
E-270	316	351	278	269	256	298	230	260	267	329	366	288	3508
Boiler	225	181	180	128	153	183	175	139	147	182	156	194	2043
Fume System	213	175	178	106	131	174	158	125	147	178	119	159	1863

28,068,027#
14,034 ST
S/B= 811,800#
406 ST
11,845,600#
2,422 ST
6,424

Koppers019863

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

February 20, 2007

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987

RE: 2006 Annual Emission Report
Permit # 26-2930

Attention: Catherine Blaine
Permit Coordinator
Northwest Region Office

Enclosed please find the 2006 annual emission report (one original and one copy) for Koppers Inc., 7540 NW Saint Helens Road, Portland, OR. 97210-3663. As required, the report includes the following:

1. Annual throughput of coal tar pitch: 22,005 tons
2. Annual throughput of heavy oil: 484 tons
3. Total boiler operating time: 2,303 hours
4. Total hot oil operating time: 6,547 hours (2,854 hours for E-170 & 3,693 hours for E-270)
5. Average plant operating schedule: Monday through Friday, 15 hours/day.
6. Emission calculations Reported: Summary, CO, NOx, PM10, SO2 and VOC.
7. Chem Cad Analysis is also included.
8. Summary of 2006 maintenance performed on the fume recovery system.
9. There were no odor complaints during 2006.

If you have any questions, I can be reached at 503-286-3681 or via e-mail at turnertj@koppers.com

Sincerely,

T. J. Turner
General Foreman

Enclosures

CC: T. Self, KI
S. Flynn, KI

January 2006 - December 2006 Annual Emissions Summary

Emission Unit	CO	NOx	PM10	SO2	VOC
Atlas Boiler	301.60	1206.39	64.63	22.40	23.99
Hot Oil Heater	212.77	656.00	49.20	17.06	25.34
Hot Oil Heater (New)	735.20	976.25	90.39	31.34	32.28
Fume Recovery System	0.00	0.00	0.00	0.00	2803.02
Tank 33	0.00	0.00	0.00	0.00	2.18
Tank 67	0.00	0.00	0.00	0.00	0.01
Fugitives	0.00	0.00	0.00	0.00	152.12

Plant Total	CO	NOx	PM10	SO2	VOC
Pounds/Yr	1249.57	2838.65	204.22	70.80	3038.94
Tons/Yr	0.62	1.42	0.10	0.04	1.52
Allowable (Tons/Yr)	99	39	N/A	39	39

January 2006 - December 2006 Annual Emissions Summary

Emission Unit	CO	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
Atlas Boiler	302	33	29	31	18	22	22	17	27	16	26	24	37
Hot Oil Heater	213	15	11	12	10	11	11	10	11	9	86	14	13
Hot Oil Heater (New)	735	85	60	62	64	56	62	46	60	44	63	68	65
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	CO
Pounds/Yr	1249.57
Tons/Yr	0.62
Allowable (Tons/Yr)	99

Koppers019866

January 2006 - December 2006 Annual Emissions Summary

Emission Unit	NOx	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
Atlas Boiler	1206	131	116	123	74	87	88	70	106	66	104	95	146
Hot Oil Heater	656	71	51	56	48	53	52	50	51	42	52	67	64
Hot Oil Heater (New)	976	113	79	82	86	74	82	61	79	59	84	90	86
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	NOx
Pounds/Yr	2838.65
Tons/Yr	1.42
Allowable (Tons/Yr)	39

Koppers019867

January 2006 - December 2006 Annual Emissions Summary

Emission Unit	PM10	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
Atlas Boiler	65	7	6	7	4	5	5	4	6	4	6	5	8
Hot Oil Heater	49	5	4	4	4	4	4	4	4	3	4	5	5
Hot Oil Heater (New)	90	10	7	8	8	7	8	6	7	5	8	8	8
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	PM10
Pounds/Yr	204.22
Tons/Yr	0.10
Allowable (Tons/Yr)	N/A

Koppers019868

January 2006 - December 2006 Annual Emissions Summary

Emission Unit	SO2	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-05	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
Atlas Boiler	22	2	2	2	1	2	2	1	2	1	2	2	3
Hot Oil Heater	17	2	1	1	1	1	1	1	1	1	1	2	2
Hot Oil Heater (New)	31	4	3	3	3	2	3	2	3	2	3	3	3
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	SO2
Pounds/Yr	70.80
Tons/Yr	0.04
Allowable (Tons/Yr)	39

Koppers019869

January 2006 - December 2006 Annual Emissions Summary

Emission Unit	VOM	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
Atlas Boiler	24	3	2	2	1	2	2	1	2	1	2	2	3
Hot Oil Heater	25	3	2	2	2	2	2	2	2	2	2	3	2
Hot Oil Heater (New)	32	3	3	3	3	3	3	2	3	2	3	3	3
Fume Recovery System	2803	237	264	277	208	214	247	159	334	189	226	196	252
Tank 33	2	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	152	7	6	7	23	7	24	7	26	5	25	7	9

Plant Total	VOC
Pounds/Yr	3038.94
Tons/Yr	1.52
Allowable (Tons/Yr)	39

Koppers019870

	MAIN GAS SUPPLY		E-270 (NEW H.O.HEATER)				E-170 (OLD H. O. HEATER)				BAL./BOILER		YEAR TO DATE						
													MAIN	E-270(NEW)		E-170(OLD)		BOILER	
DATE	READING	USAGE	READING	UNITS	USAGE	%	READING	UNITS	USAGE	%	USAGE	%	TOTAL	TOTAL	%	TOTAL	%	TOTAL	%
Dec-05	463966	463966	18472	18472	31042	0.067	52130	52130	87604	0.189	345319	0.744	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Jan-06	494946	30980	26918	8446	14194	0.458	56454	4324	7266	0.235	9520	0.307	30980	14194	0.458	7266	0.235	9520	0.307
Feb-06	518572	23626	32855	5937	9977	0.422	59550	3096	5203	0.220	8446	0.357	54606	24171	0.443	12469	0.228	17966	0.329
Mar-06	543628	25056	38993	6138	10315	0.412	62967	3417	5742	0.229	8999	0.359	79662	34486	0.433	18211	0.229	26965	0.338
Apr-06	564690	21062	45415	6422	10792	0.512	65867	2900	4873	0.231	5396	0.256	100724	45278	0.450	23085	0.229	32361	0.321
May-06	585770	21080	51001	5586	9387	0.445	69071	3204	5384	0.255	6308	0.299	121804	54665	0.449	28469	0.234	38670	0.317
Jun-06	607860	22090	57164	6163	10357	0.469	72217	3146	5287	0.239	6446	0.292	143894	65022	0.452	33756	0.235	45116	0.314
Jul-06	625752	17892	61769	4605	7739	0.433	75232	3015	5067	0.283	5087	0.284	161786	72761	0.450	38822	0.240	50202	0.310
Aug-06	648682	22930	67720	5951	10001	0.436	78314	3082	5179	0.226	7750	0.338	184716	82762	0.448	44002	0.238	57953	0.314
Sep-06	665246	16564	72140	4420	7428	0.448	80887	2573	4324	0.261	4812	0.291	201280	90190	0.448	48326	0.240	62765	0.312
Oct-06	688786	23540	78439	6299	10585	0.450	84067	3180	5344	0.227	7611	0.323	224820	100775	0.448	53670	0.239	70375	0.313
Nov-06	713927	25141	85211	6772	11380	0.453	88120	4053	6811	0.271	6950	0.276	249961	112155	0.449	60481	0.242	77325	0.309
Dec-06	741981	28054	91698	6487	10901	0.389	91986	3866	6497	0.232	10656	0.380	278015	123057	0.443	66978	0.241	87981	0.316

Koppers019871

Stream No.	1	33	20	5
Name	Pitch Fumes	Heavy Oil	Vap Totalizr	Minus Water
- - Overall - -				
Molar flow lbmol/ mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/ mo	24.7000	38289.0352	5062.2417	3585.6523
Temp F	400.0000	200.0000	200.0000	200.0000
Pres psia	14.7000	14.7000	14.7000	14.7000
Vapor mole fraction	0.0000	0.0000	0.0000	0.0000
Enth MMBtu/ mo	0.0114518	3.35397	-8.37564	1.51017
Tc F	1293.1027	1217.8970	874.6153	952.4783
Pc psia	395.1926	2408.7273	4633.7319	454.2526
Std. sp gr , wtr = 1	1.049	1.092	1.063	1.091
Std. sp gr , air = 1	9.046	5.669	1.706	6.043
Degree API	3.4243	-1.9726	1.6691	-1.7662
Heating values (60 F)				
Gross Btu/lbmol	4.308E+006	2.593E+006	5.878E+005	2.940E+006
Net Btu/lbmol	4.162E+006	2.492E+006	5.540E+005	2.847E+006
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9831	64.6572	63.1629	64.5217
Actual vol ft3/mo	0.4335	592.1855	80.1459	55.5728
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7763	88499.5000	38878.5859	7774.8315
- - Liquid only - -				
Molar flow lbmol/mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/mo	24.7000	38289.0352	5062.2417	3585.6523
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9830	64.6572	63.1629	64.5217
Actual vol gpm	0.0540	73.8394	9.9934	6.9294
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7763	88499.5000	38878.5859	7774.8315
Cp Btu/lbmol-F	132.7899	72.3780	28.2225	68.6495
Z factor	0.0104	0.0086	0.0021	0.0067
Visc cP	0.8220	1.761	0.4025	1.261
Th cond Btu/hr-ft-F	0.0624	0.0790	0.1258	0.0746
Surf tens dyne/cm	30.2345	40.3694	41.1704	34.4760

Stream No.	12
Name	CIrculation
- - Overall - -	
Molar flow lbmol/mo	212.7850
Mass flow lb/mo	51290.7813
Temp F	199.9745
Pres psia	14.7000
Vapor mole fraction	0.0000
Enth MMBtu/mo	16.6586
Tc F	1274.0345
Pc psia	454.6739
Std. sp gr , wtr = 1	1.079
Std. sp gr , air = 1	8.323
Degree API	-0.4005
Heating values (60 F)	
Gross Btu/lbmol	3.936E+006
Net Btu/lbmol	3.793E+006
Average mol wt	241.0452
Actual dens lb/ft3	63.6808
Actual vol ft3/mo	805.4355
Std liq gpm	95.0009
Std vap 60F scf/mo	80747.3438
- - Liquid only - -	
Molar flow lbmol/mo	212.7850
Mass flow lb/mo	51290.7813
Average mol wt	241.0452
Actual dens lb/ft3	63.6808
Actual vol gpm	100.4294
Std liq gpm	95.0009
Std vap 60F scf/mo	80747.3438
Cp Btu/lbmol-F	101.7720
Z factor	0.0124
Visc cP	3.336
Th cond Btu/hr-ft-F	0.0735
Surf tens dyne/cm	40.0285

Turner TJ

From: Dye, Gary [gld@nwnatural.com]
Sent: Wednesday, February 07, 2007 2:58 PM
To: Turner TJ
Subject: 2006 NW Natural Sulfur and Gas Quality Report

Please find attached the 2006 NW Natural Sulfur and Gas Quality report. Please note that NW Natural makes no representations or warranties as to the accuracy or the reliability of the data and other information transmitted herewith, or as to any conclusions that may be drawn from such data and information. Any reliance and interpretation of this data and information shall be at its sole risk.

<<2006 SI SULF SUMMARY.xls>>

If you have any questions, please contact me.

Gary Dye

Engineering Supervisor, Gas Measurement/Gas Supply

NW Natural

One Pacific Square

220 NW 2nd Avenue

Portland, OR 97209

503.226.2421 ext. 4603

503.970.4249 (cell)

503.220.2421 (fax)

Gary.Dye@NWNatural.com

5039704249@mmode.com (text message)

2006 MONTH	Sauvie Is. S [Lb/MMSCF]	
	H_2S	TOTAL S
JAN	0.00	0.58
FEB	0.01	0.90
MAR	0.01	0.88
APR	0.01	2.20
MAY	0.02	2.21
JUN	0.01	1.96
JUL	0.04	1.06
AUG	0.01	2.48
SEP	0.02	0.86
OCT	0.01	0.30
NOV	0.00	0.83
DEC	0.00	1.03
Max	0.037	2.48
Average	**0.01**	**1.28**
Min	0.00	0.30
Spread	0.04	2.18

Sauvie Island Hydrocarbon Analysis			
SPG	BTU/MMSCF	% N2	% CO2
0.591	1,040	0.71	0.78
0.588	1,039	0.74	0.63
0.587	1,037	0.73	0.61
0.588	1,041	0.64	0.59
0.578	1,027	0.64	0.46
0.579	1,029	0.70	0.45
0.574	1,020	0.62	0.50
0.587	1,040	0.61	0.56
0.589	1,046	0.49	0.58
0.589	1,041	0.66	0.60
0.587	1,037	0.70	0.66
0.589	1,037	0.72	0.71
0.591	1,046	0.74	0.78
0.586	**1,036**	**0.66**	**0.59**
0.574	1,020	0.49	0.45
0.017	26	0.25	0.32

SI Sulfur [PPMw]		2006 MONTH
H_2S	TOTAL S	
0.01	12.84	JAN
0.32	19.99	FEB
0.32	19.67	MAR
0.19	48.91	APR
0.40	49.91	MAY
0.32	44.28	JUN
0.83	24.06	JUL
0.28	55.22	AUG
0.47	19.07	SEP
0.13	6.62	OCT
0.00	18.56	NOV
0.01	22.84	DEC
0.83	55.22	Max
0.27	**28.50**	**Average**
0.00	6.62	Min
0.83	48.60	Spread

NOTES: H_2S = hydrogen sulfide
SPG = gas specific gravity (air = 1.000)
Lb/MMSCF = pounds of sulfur per million standard cubic feet of gas
Gr/CCF = grains of sulfur per 100 standard cubic feet of gas
PPM_W =parts per million of sulfur by weight
Wt% = percent of sulfur (by weight) in gas

2006 MONTH	SI Sulfur [Gr/Ccf]	
	H_2S	TOTAL S
JAN	0.00	0.40
FEB	0.01	0.63
MAR	0.01	0.61
APR	0.01	1.53
MAY	0.01	1.53
JUN	0.01	1.36
JUL	0.03	0.73
AUG	0.01	1.72
SEP	0.01	0.60
OCT	0.00	0.21
NOV	0.00	0.58
DEC	0.00	0.71
Max	0.03	1.72
Average	**0.01**	**0.89**
Min	0.00	0.21
Spread	0.03	1.52

SI Sulfur [wt%]		2006 MONTH
H_2S	TOTAL S	
0.0000%	0.0013%	JAN
0.0000%	0.0020%	FEB
0.0000%	0.0020%	MAR
0.0000%	0.0049%	APR
0.0000%	0.0050%	MAY
0.0000%	0.0044%	JUN
0.0001%	0.0024%	JUL
0.0000%	0.0055%	AUG
0.0000%	0.0019%	SEP
0.0000%	0.0007%	OCT
0.0000%	0.0019%	NOV
0.0000%	0.0023%	DEC
0.0001%	0.0055%	Max
0.0000%	**0.0028%**	**Average**
0.0000%	0.0007%	Min
0.0001%	0.0049%	Spread

Note: NW Natural makes no representations or warranties as to the accuracy or the reliability of the data and other information transmitted herewith, or as to any conclusions that may be drawn from such data and information. Any reliance and interpretation of this data and information shall be at its sole risk.

Koppers019875

2006	Unodorized Sauvie Island (Gr/CCF)			Odorant Added		TOTAL (lb/mmscf)	
MONTH	MCF	H_2S	Total	Lbs	lb/mmscf	H_2S	Total S
JAN	2266769	0.00	0.04	1190	0.52	0	0.58
FEB	1476816	0.01	0.06	1198	0.81	0	0.90
MAR	1874569	0.01	0.05	1524	0.81	0	0.88
APR	1251032	0.01	0.94	1076	0.86	0	2.20
MAY	1366608	0.01	0.86	1333	0.98	0	2.21
JUN	1188476	0.01	0.77	1023	0.86	0	1.96
JUL	1340962	0.03	0.12	1180	0.88	0	1.06
AUG	1355949	0.01	1.05	1328	0.98	0	2.48
SEP	1176723	0.01	0.03	963	0.82	0	0.86
OCT	1287690	0.00	0.06	279	0.22	0	0.30
NOV	1929455	0.00	0.05	1473	0.76	0	0.83
DEC	2334330	0.00	0.06	2214	0.95	0	1.03
Max	2334330	0.03	1.05	2214	0.98	0.04	2.48
Average	**1570782**	**0.01**	**0.34**	**1232**	**0.79**	**0.01**	**1.28**
Min	1176723	0.00	0.03	279	0.22	0.00	0.30
Spread	1157607	0.03	1.02	1935	0.76	0.04	2.18

Koppers019876

Fume Recovery System Maintenance Recap 2006

Date	Work Performed
1/6	Pump FS-1 seal failure switched operations to FS-2
1/9	Pulled FS-1 sent pump out to be rebuilt
1/9	Wash fluid change out-refilled to 47" out
1/10	Installed rebuilt pump at FS-1 on the fume system
1/10	Switched to FS-1 due to coupling problems on FS-2
1/26	Inspected and cleaned vacuum breakers all 3 on T-200
1/26	Inspected and cleaned level indicator and pressure level indicator
2/7	Checked fume system and serviced pumps repaired FS-2 Coupling
2/14	Checked and inspected the demister fume system pads clean unit functioning
2/23	Wash fluid change out refilled to 48" out
3/14	Checked system functioning properly
3/22	Wash Fluid becoming viscous 62" out
3/31	Wash Fluid changed out refilled to 48" out
4/6	Inspected T-200 vacuum breaker systems and indicators
4/20	Checked wash fluid level down 8 inches filled to 48" out
4/27	Inspected fume system pumps for service during ship
5/2	Inspected and cleaned T-200 vacuum breakers and indicators
5/4	Checked wash fluid condition in T-102 needs to be changed out
5/8	Wash fluid changed out refilled to 48" out
6/7	Check condition of wash fluid 58" out thickening
6/12	Wash fluid changed out refilled to 48" out
6/23	T-200 vacuum breakers and control indicators inspected and cleaned housekeeping done
6/28	T-200 checked on top to inspect vacuum breakers after ship unloading was complete
7/10	Cleaned and inspected vacuum breakers and indicators on T-200 Check controls
7/13	Wash fluid change out done refilled to 48" out
7/24	Checked outage and consistence of fume system 50" out thin appearance
8/1	Checked fume system tank appears to be thickening 58" out
8/7	Inspected demister pads found ok serviced pumps
8/8	Fume system changed out refilled to 48" out
8/26	Clean and inspected T-200 vacuum breakers 3 level indicators, tank pressure indicators
9/8	Checked fume system 68" out thick added fluid to 48" out
9/14	Checked fume tank 56" out thicker
9/15	Fume system changed out refilled to 47" out
9/28	Checked and cleaned fume vent pressure indicators on T-200
10/2	Checked fume system T-102 50" out thin
10/13	Checked fume system getting thick 58" out
10/20	Fume system changed out refilled to 47" out
10/24	Checked T-200 vacuum breakers found ok
10/27	Fume system pump failed due to coupling failure switched to pump FS-1
10/27	Made repairs to fume system pump FS-2
11/6	Repaired fume tank T-102 electric heaters
11/14	Wash fluid becoming visous 64: out added fluid to 47" out
11/16	T-200 vacuum breakers (3) cleaned level indicators, vent pressure indicators cleaned
11/27	Fume system changed out refilled to 47" out
11/30	Vacuum flow gage for fume system serviced
12/12	Checked T-102 wash fluid 56" out
12/18	Vacuum breakers and indicators inspected
12/27	Repaired T-102 fume tank heaters, power surge replaced fuses

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Northwest Region Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201
(503) 229-5554
FAX (503) 229 6945

January 9, 2007

Amos Kamerer
Koppers Industries Inc.
7540 NW St Helens Rd
Portland OR 97210-3663

RE: Annual report

Dear Permit Holder:

This courtesy letter serves to remind you of the reporting requirement in your Air Permit. The date the report is due can be found in your permit. Some annual reports are due as early as January 31, 2007. Submittal of an annual report is a requirement of your Air Permit. Please submit an original and one copy of the completed annual report for 2006 no later than the date listed in your permit.

Oregon Department of Environmental Quality
Northwest Region Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201

The Annual Report form can also be obtained from our Web Site http://www.oregon.gov/DEQ/. You will now be able to obtain various types of application forms as well as other forms and information from our web site. We hope that you will find this useful.

Thank you,

Catherine Blaine
Permit Coordinator
Northwest Region Office

cb

DEQ-DC1

ODEQ AIR Permit 2006 Throughput Northwest Terminal - All Quantities shown are in ponuds

Movement	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
T-65 to Cars	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to Cars	2081500	1705800	1710800	1717600	1543070	2224900	1716200	3224500	2216800	2046700	1705200	1374200	23267270
T-68 to Trucks	1828020	1085980	1887580	1281060	1762340	1889270	1759900	1839500	1085880	1766920	1769760	2786100	20742310
Cars to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
T-65 to T-68	0	0	0	0	0	0	0	0	0	0	0	0	0
T-65 to T-200	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to T-68	1844063	1833706	1927629	1153080	1686047	2030802	1855015	1828431	985380	1708284	2126534	2406192	21385163
HO T-33 to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-33 to T-200	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-33 to T-68	35100	32400	45900	30600	34200	40050	36000	45000	33300	36000	51750	77850	498150
HO cars to T-33	0	0	134900	0	0	0	0	153700	0	0	0	181200	469800
HO cars to T-67	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-67 to T-33	0	0	0	0	0	0	0	0	0	0	0	0	0
Vessel to T-200	0	0	0	9400392	0	9026748	0	9508336	0	9486956	0	0	37422432
Solid to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
innage T-33 (24')	9	7	13.5	11.5	9.5	7	4.75	11.6	9.5	7.25	4	10.5	
innage T-67 (29')	4	4	4	4	4	4	4	4	4	4	4	4	
					Hours of Operation								
E-170	252	235	250	200	222	240	197	250	187	245	278	298	2854
E-270	306	271	304	352	293	300	239	377	240	397	292	322	3693
Boiler	216	220	236	164	165	201	139	252	148	179	166	217	2303
Fume System	173	193	202	152	156	180	116	244	138	165	143	184	2046

ADD

ADD

ADD

Koppers019879

Koppers Inc.
Carbon Materials and Chemicals
7540 NW Saint Helens Road
Portland, OR 97210-3663
Tel 503 286 3681
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www.koppers.com

February 13, 2006

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987

RE: 2005 Annual Emission Report
Permit # 26-2930

Attention: Catherine Blaine
Permit Coordinator
Northwest Region Office

Enclosed please find the 2005 annual emission report (one original and one copy) for Koppers Inc., 7540 NW Saint Helens Road, Portland, OR. 97210-3663. As required, the report includes the following:

1. Annual throughput of coal tar pitch: 18,132 tons
2. Annual throughput of heavy oil: 435 tons
3. Total boiler operating time: 2,329 hours
4. Total hot oil operating time: 6,074 hours (2,636 hours for E-170 & 3,438 hours for E-270)
5. Average plant operating schedule: Monday through Friday, 15 hours/day.
6. Emission calculations Reported: Summary, CO, NOx, PM10, SO2 and VOC.
7. Chem Cad Analysis is also included.
8. Summary of 2005 maintenance performed on the fume recovery system.
9. There were no odor complaints during 2005.

If you have any questions, I can be reached at 503-286-3681 or via e-mail at turnertj@koppers.com

Sincerely,

T. J. Turner
General Foreman

Enclosures

CC: T. Self, KI
S. Flynn, KI
File Copy

January 2005 - December 2005 Annual Emissions Summary

Emission Unit	CO	NOx	PM10	SO2	VOC
Atlas Boiler	302.32	1209.28	64.78	22.46	24.05
Hot Oil Heater	146.62	656.25	49.22	12.47	25.12
Hot Oil Heater (New)	622.89	827.11	76.58	19.40	28.43
Fume Recovery System	0.00	0.00	0.00	0.00	2635.88
Tank 33	0.00	0.00	0.00	0.00	2.43
Tank 67	0.00	0.00	0.00	0.00	0.03
Fugitives	0.00	0.00	0.00	0.00	130.03

Plant Total	CO	NOx	PM10	SO2	VOC
Pounds/Yr	1071.83	2692.64	190.59	54.33	2845.96
Tons/Yr	0.54	1.35	0.10	0.03	1.42
Allowable (Tons/Yr)	99	39	N/A	39	39

January 2005 - December 2005 Annual Emissions Summary

Emission Unit	CO	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Atlas Boiler	302	28	27	28	25	24	11	22	28	23	22	24	39
Hot Oil Heater	147	13	0	28	12	21	13	5	10	9	0	24	11
Hot Oil Heater (New)	623	59	46	68	50	20	0	80	65	44	55	64	71
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	CO
Pounds/Yr	1071.83
Tons/Yr	0.54
Allowable (Tons/Yr)	99

Koppers019882

January 2005 - December 2005 Annual Emissions Summary

Emission Unit	NOx	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Atlas Boiler	1209	111	108	112	102	94	46	90	114	92	87	97	156
Hot Oil Heater	656	60	50	59	55	99	62	25	49	44	46	53	53
Hot Oil Heater (New)	827	79	62	90	66	27	0	107	87	59	73	85	94
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	NOx
Pounds/Yr	2692.64
Tons/Yr	1.35
Allowable (Tons/Yr)	39

Koppers019883

January 2005 - December 2005 Annual Emissions Summary

Emission Unit	PM10	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Atlas Boiler	65	6	6	6	5	5	2	5	6	5	5	5	8
Hot Oil Heater	49	5	4	4	4	7	5	2	4	3	3	4	4
Hot Oil Heater (New)	77	7	6	8	6	2	0	10	8	5	7	8	9
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	PM10
Pounds/Yr	190.59
Tons/Yr	0.10
Allowable (Tons/Yr)	N/A

Koppers019884

January 2005 - December 2005 Annual Emissions Summary

Emission Unit	SO2	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Atlas Boiler	22	2	2	2	2	2	1	2	2	2	2	2	3
Hot Oil Heater	12	1	1	1	1	2	1	0	1	1	1	1	1
Hot Oil Heater (New)	19	2	1	2	2	1	0	3	2	1	2	2	2
Fume Recovery System	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 33	0	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	0	0	0	0	0	0	0	0	0	0	0	0	0

Plant Total	SO2
Pounds/Yr	54.33
Tons/Yr	0.03
Allowable (Tons/Yr)	39

Koppers019885

January 2005 - December 2005 Annual Emissions Summary

Emission Unit	VOM	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Atlas Boiler	24	2	2	2	2	2	1	2	2	2	2	2	3
Hot Oil Heater	25	2	2	2	2	4	2	1	2	2	2	2	2
Hot Oil Heater (New)	28	3	2	3	2	1	0	4	3	2	2	3	3
Fume Recovery System	2636	177	223	282	259	225	93	145	277	301	192	196	266
Tank 33	2	0	0	0	0	0	0	0	0	0	0	0	0
Tank 67	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitives	130	7	6	10	8	5	2	25	26	6	5	4	26

Plant Total	VOC
Pounds/Yr	2845.96
Tons/Yr	1.42
Allowable (Tons/Yr)	39

Koppers019886

Stream No.	1	33	20	5
Name	Pitch Fumes	Heavy Oil	Vap Totalizr	Minus Water
- - Overall - -				
Molar flow lbmol/ mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/ mo	24.7000	38289.0352	5062.2417	3585.6523
Temp F	400.0000	200.0000	200.0000	200.0000
Pres psia	14.7000	14.7000	14.7000	14.7000
Vapor mole fraction	0.0000	0.0000	0.0000	0.0000
Enth MMBtu/ mo	0.0114518	3.35397	-8.37564	1.51017
Tc F	1393.1027	1217.8970	874.6153	952.4783
Pc psia	395.1926	2408.7273	4633.7319	454.2526
Std. sp gr , wtr = 1	1.049	1.092	1.063	1.091
Std. sp gr , air = 1	9.046	5.669	1.706	6.043
Degree API	3.4243	-1.9726	1.6691	-1.7662
Heating values (60 F)				
Gross Btu/lbmol	4.308E+006	2.593E+006	5.878E+005	2.940E+006
Net Btu/lbmol	4.162E+006	2.492E+006	5.540E+005	2.847E+006
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9831	64.6572	63.1629	64.5217
Actual vol ft3/mo	0.4335	592.1855	80.1459	55.5728
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7763	88499.5000	38878.5859	7774.8315
- - Liquid only - -				
Molar flow lbmol/mo	0.0943	233.2134	102.4526	20.4882
Mass flow lb/mo	24.7000	38289.0352	5062.2417	3585.6523
Average mol wt	261.9927	164.1803	49.4106	175.0107
Actual dens lb/ft3	56.9830	64.6572	63.1629	64.5217
Actual vol gpm	0.0540	73.8394	9.9934	6.9294
Std liq gpm	0.0471	70.0686	9.5243	6.5722
Std vap 60F scf mo	35.7763	88499.5000	38878.5859	7774.8315
Cp Btu/lbmol-F	132.7899	72.3780	28.2225	68.6495
Z factor	0.0104	0.0086	0.0021	0.0067
Visc cP	0.8220	1.761	0.4025	1.261
Th cond Btu/hr-ft-F	0.0624	0.0790	0.1258	0.0746
Surf tens dyne/cm	30.2345	40.3694	41.1704	34.4760

Stream No.	12
Name	CIrculation
- - Overall - -	
Molar flow lbmol/mo	212.7850
Mass flow lb/mo	51290.7813
Temp F	199.9745
Pres psia	14.7000
Vapor mole fraction	0.0000
Enth MMBtu/mo	16.6586
Tc F	1274.0345
Pc psia	454.6739
Std. sp gr , wtr = 1	1.079
Std. sp gr , air = 1	8.323
Degree API	-0.4005
Heating values (60 F)	
Gross Btu/lbmol	3.936E+006
Net Btu/lbmol	3.793E+006
Average mol wt	241.0452
Actual dens lb/ft3	63.6808
Actual vol ft3/mo	805.4355
Std liq gpm	95.0009
Std vap 60F scf/mo	80747.3438
- - Liquid only - -	
Molar flow lbmol/mo	212.7850
Mass flow lb/mo	51290.7813
Average mol wt	241.0452
Actual dens lb/ft3	63.6808
Actual vol gpm	100.4294
Std liq gpm	95.0009
Std vap 60F scf/mo	80747.3438
Cp Btu/lbmol-F	101.7720
Z factor	0.0124
Visc cP	3.336
Th cond Btu/hr-ft-F	0.0735
Surf tens dyne/cm	40.0285

Fume Recovery System Maintenance Recap 2005

Date	Work Performed
1/4	Checked pump systems due to freeze conditions
1/20	Checked and serviced pumps FS-1/FS-2
1/27	Heated wash fluid for changing.
1/31	Changed wash fluid to 48" in.
2/11	Changed wash fluid to 48" in.
2/25	Serviced pumps and checked system.
2/28	Pump FS-1 starting to show signs of ware/noise internally.
3/1	Pump FS-1 failed, pulled for rebuilding. Also, changed wash fluid to 48" in.
3/7	Cleaned two of the vacuum breakers on T-200.
3/8	Cleaned the remaining vacuum breaker on T-200.
3/30	Changed wash fluid to 48" in.
4/5	FS-1 pump installed with new seal. FS-2 pump pulled with seal failure.
4/11	FS-2 pump installed after repair. FS-2 pump coupling repaired and adjusted.
4/26	Drained fume line at truck loading station.
4/27	Checked and inspected the demister.
5/4	FS-2 pump pulled for rebuild due to seal and bearing failure.
5/5	Changed wash fluid to 48" in and switched system to pump FS-1.
6/10	Inspected fume system and added wash fluid to 47" out.
7/3	Cleaned and inspected 3 vacuum breakers and pressure sensors on T-200.
7/5	Cleaned vacuum breaker and level indicator and cleared fume line on T-68.
7/6	Wash fluid added to T-102 to 48" in.
7/10	Fume vent line inspected and cleaned on T-200.
7/28	Drained fume line at truck loading station.
8/2	Changed wash fluid to 48" in.
8/9	Rebuilt FS-2 pump reinstalled, still using FS-1.
8/20	Checked system, wash fluid at 52" out, will need changing soon.
9/6	Changed wash fluid to 48" in.
9/22	Inspected fume system and preformed pump maintenance.
9/29	Cleaned the 3 vacuum breakers and the level pressure indicator on T-200.
10/5	Installed the new wash fluid transfer pump.
10/12	Completed the electrical hookup on the new wash fluid transfer pump.
10/13	Changed wash fluid to 48" in.
10/29	Ordered new change out hoses and fittings.
11/9	Checked wash fluid level, everything OK.
11/10	Serviced fume system pumps.
11/16	Completed the pipeline connections on the new wash fluid transfer system.
11/21	Washe fluid changed using the new transfer pump and hose system. Refilled to 48" in.
11/22	Cleaned the 3 vacuum breakers and the level pressure indicator on T-200.
12/7	Checked and serviced system.
12/21	Checked wash fluid level, 54" out.

Kamerer Amos

From: Dye, Gary [gld@nwnatural.com]
Sent: Thursday, February 09, 2006 5:03 PM
To: bryan.trotter@am.dynonobel.com; Kamerer Amos
Subject: 2005 Sauvie Island Gate Sulfur and Gas Quality Report

Please find attached the 2005 Sauvie Island Gate Sulfur and Gas Quality Report:

<<2005 SI SULF SUMMARY.xls>>

NW Natural makes no representations or warranties as to the accuracy or the reliability of the data and other information transmitted herewith, or as to any conclusions that may be drawn from such data and information. Any reliance and interpretation of this data and information shall be at its sole risk.

If you have any questions about this report, please contact me.

Gary L. Dye

Engineering Supervisor, Gas Measurement/Gas Supply
NW Natural
One Pacific Square – 2nd floor
220 NW 2nd Avenue
Portland, OR 97209
Gary.Dye@NWNatural.com
(503) 226-4211 ext. 4603
(503) 970-4249 (cell)
(503) 220-2421 (fax)

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2005	Sauvie Is. S [Lb/MMSCF]	
MONTH	H_2S	TOTAL
JAN	0.04	1.72
FEB	0.05	2.13
MAR	0.05	3.65
APR	0.04	4.58
MAY	0.04	4.11
JUN	0.04	4.28
JUL	0.06	4.26
AUG	0.04	4.90
SEP	0.02	2.14
OCT	0.02	2.04
NOV	0.00	1.91
DEC	0.00	1.16
Max	0.058	4.90
Average	**0.03**	**3.07**
Min	0.00	1.16
Spread	0.06	3.74

SI Hydrocarbon Analysis			
BTU/MMSCF	SPG	% CO_2	% N_2
1,041	0.591	0.69	0.79
1,043	0.591	0.63	0.75
1,044	0.591	0.63	0.67
1,033	0.583	0.48	0.75
1,029	0.578	0.37	0.77
1,026	0.577	0.39	0.81
1,030	0.581	0.45	0.81
1,025	0.576	0.37	0.80
1,027	0.577	0.41	0.75
1,036	0.584	0.53	0.67
1,040	0.591	0.81	0.63
1,041	0.593	0.81	0.74
1,044	0.593	0.81	0.81
1,035	**0.584**	**0.55**	**0.75**
1,025	0.576	0.37	0.63
19	0.017	0.44	0.19

SI Sulfur [PPMw]		2005
H_2S	TOTAL	MONTH
0.94	37.98	JAN
1.20	47.03	FEB
1.11	80.62	MAR
0.94	102.64	APR
0.83	92.86	MAY
0.80	96.95	JUN
1.30	95.78	JUL
0.80	111.20	AUG
0.44	48.45	SEP
0.51	45.55	OCT
0.05	42.13	NOV
0.01	25.54	DEC
1.30	111.20	Max
0.75	**68.90**	**Average**
0.01	25.54	Min
1.29	85.66	Spread

NOTES:
H_2S = hydrogen sulfide
RSH = mercaptans
RS(S)R = mono-and disulfides
SPG = gas specific gravity (air = 1.000)
Lb/MMSCF = pounds of sulfur per million standard cubic feet of gas
Gr/CCF = grains of sulfur per 100 standard cubic feet of gas
PPM*w* =parts per million of sulfur by weight
Wt% = percent of sulfur (by weight) in gas

2005	SI Sulfur [Gr/Ccf]	
MONTH	H_2S	TOTAL
JAN	0.03	1.19
FEB	0.04	1.48
MAR	0.03	2.53
APR	0.03	3.18
MAY	0.03	2.86
JUN	0.02	2.97
JUL	0.04	2.96
AUG	0.02	3.41
SEP	0.01	1.49
OCT	0.02	1.41
NOV	0.00	1.32
DEC	0.00	0.81
Max	0.04	3.41
Average	**0.02**	**2.13**
Min	0.00	0.81
Spread	0.04	2.60

SI Sulfur [Wt%]		2005
H_2S	TOTAL	MONTH
0.0001%	0.0001%	JAN
0.0001%	0.0001%	FEB
0.0001%	0.0001%	MAR
0.0001%	0.0001%	APR
0.0001%	0.0093%	MAY
0.0001%	0.0097%	JUN
0.0001%	0.0096%	JUL
0.0001%	0.0111%	AUG
0.0000%	0.0048%	SEP
0.0001%	0.0046%	OCT
0.0000%	0.0042%	NOV
0.0000%	0.0026%	DEC
0.0001%	0.0111%	Max
0.0001%	**0.0047%**	**Average**
0.0000%	0.0001%	Min
0.0001%	0.0110%	Spread

Koppers019891

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

DEC 27 2005

December 22, 2005

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

RE: Annual Reports

This courtesy letter serves to remind you of the reporting requirement in your Air Quality Permit. Please refer to your permit for the due date of your annual reports (many due dates are January 15th but not all) and report and submit an original and one copy of the completed annual report for the year 2005 to the regional office listed below:

Oregon Department of Environmental Quality
Northwest Region Office
2020 SW 4th Avenue, Suite 400
Portland, Oregon 97201

Annual reporting forms can be found on line at www.deq.state.or.us

I can be reached by phone at (503) 229-5582 or e-mail at blaine.catherine@deq.state.or.us for administrative questions for technical questions call your inspector/permit writer.

Thank-you,

Catherine Blaine

Catherine Blaine
Permit Coordinator
Northwest Region Office

ODEQ AIR Permit 2005 Throughput Northwest Terminal - All Quantities shown are in ponuds

Movement	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
T-65 to Cars	0	0	0	0	584300	1545200	0	0	0	0	0	0	2129500
T-200 to Cars	1036509	1214576	2081400	1728300	778600	0	2063000	1876400	1371800	1715400	344000	1893000	16102985
T-68 to Trucks	1772660	1911060	2740240	2574360	853120	0	272400	2109970	1701450	1220480	931860	1943710	18031310
Cars to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
T-65 to T-68	0	0	0	0	0	0	353849	0	0	0	0	0	353849
T-65 to T-200	0	0	0	0	0	0	2310746	0	0	0	0	0	2310746
T-200 to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
T-200 to T-68	1860935	1766880	2854549	2225339	1418264	470556	0	2389397	1400778	889139	1083286	1833706	18192829
HO T-33 to T-65	0	0	0	0	0	0	37800	0	0	0	0	0	37800
HO T-33 to T-200	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-33 to T-68	53100	45450	60400	33300	16200	0	16200	31500	38400	18000	29250	42300	384100
HO cars to T-33	160600	0	0	164600	0	0	0	0	159900	0		0	485100
HO cars to T-67	0	0	0	0	0	0	0	0	0	0	0	0	0
HO T-67 to T-33	0	0	0	0	0	0	0	0	0	0	0	0	0
Vessel to T-200	0	0	9531914	0	0	0	9583620	9519102	0		0	10367515	39002151
Solid to T-65	0	0	0	0	0	0	0	0	0	0	0	0	0
Outage T-33 (24')	10.5	13	16.75	8.5	9.75	9.75	12.75	14.75	7.5	8.5	10.3	13	
Outage T-67 (29')	29'	29	29	29	29	29	29	29	29	29	29	29	
					Hours of Operation								
E-170	283	197	261	242	296	242	49	226	202	185	200	253	2636
E-270	354	267	413	314	140	0	454	376	245	236	258	381	3438
Boiler	182	183	227	198	222	109	178	223	242	158	156	251	2329
Fume System	129	163	206	189	164	68	106	202	220	140	143	194	1924

Kopper019893

CONSENT FOR ACCESS TO PROPERTY

Name: Koppers Industries, Inc.

Address of Property: 7540 N. W. St. Helens Road
Portland, Oregon 97210

I hereby give my consent and permission to the extent of whatever possessory interest I may have in the property and premises described above (the "property"), and appurtenances thereto, to officers, employees, agents, authorized representatives, and the persons and their contractors acting pursuant to Order by the Oregon Department of Environmental Quality (DEQ) to enter my property for the limited purpose of installing groundwater monitoring wells, sampling existing wells, measuring water elevations, evaluating wells and/or sampling from wells.

Such entry shall be during working hours and after reasonable advance notice and subject to such reasonable conditions as may be required to protect my or my company's property or proprietary interests and minimize disruption of activities, if any, at the property.

I recognize that these actions are undertaken pursuant to an Order on Consent under ORS 465.260.

This written permission is given by me voluntarily with knowledge of my right to refuse and without threats or promises of any kind. I understand that by consenting to access, I neither incur any liability nor waive any rights not otherwise provided for under applicable law.

By: John A Ford
Name

Plant Mgr.
Title

6-29-90
Date

Koppers019895

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

October 1, 1999

cc: Jim Dietz 11/18/99
Leslie Reis
Mark Cilley

Ms. Sandra Hart
Senior Engineer
Northwest Natural
220 N.W. Second Avenue
Portland, OR 97209

RE: Preliminary Results of Groundwater Monitoring Downgradient of Tank Location, Koppers Lease Area – Former GASCO site.

Dear Sandi:

As you are aware, 208 support pilings were driven to bedrock as part of the installation of a pencil pitch storage tank at the Koppers Lease Area at the former GASCO site. The pilings penetrated an area of tar contamination present in the form of a dense non-aqueous phase liquid (DNAPL). Following installation of the support pilings, two monitoring wells were installed downgradient of the pencil pitch storage tank. One monitoring well, MW-15-50, is screened immediately below a silt unit that has, at previously investigated locations in the plant site area, acted as a barrier to contaminant migration. The second monitoring well, MW-15-66, is screened just above the basalt/alluvium interface. The purpose of the monitoring wells is to determine whether the tank installation could exacerbate existing contamination at the former GASCO facility.

Monitoring wells MW-15-50 and MW-15-66 were sampled in July 1999. MW-15-66 was resampled as part of quarterly groundwater monitoring at the GASCO facility in August 1999. Preliminary results obtained from MW-15-50 reveal high concentrations of benzene (95.1 mg/l), naphthalene (8.5 mg/l) and acenaphthylene (9.7 mg/l) in groundwater. These concentrations indicate that free phase product is present in the vicinity of MW-15-50. Groundwater concentrations detected in groundwater collected from MW-15-66 are only slightly above detection limits.

A preliminary analysis of the groundwater data suggests that free product has penetrated the silt unit in the vicinity of the pencil pitch storage tank location. Based on the low concentrations of contamination detected in MW-15-66, it appears that the contamination detected in MW-15-50 was not present prior to the installation of the support pilings. However, it is not clear at this time whether the migration of contamination through the silt units occurred as a result of contaminant dragdown during pile installation or indicates that the support pilings have created a conduit that will allow continued migration of free phase product through the silt unit and into the alluvial zone.

DEQ-1

Until it can be demonstrated existing conditions have not been exacerbated due to the installation of support pilings, DEQ will not approve the installation of any subsequent storage tanks. DEQ requests that Northwest Natural develop a plan to assess the source of the high concentrations of benzene, naphthalene and acenaphthylene detected in monitoring well MW-15-50. The plan should present an approach to determine whether the observed contamination is associated with the installation of the support pilings and whether a conduit for ongoing migration of free phase product through the silt unit and into the alluvial zone has been created.

If you have any questions in this matter, please contact me at 229-5648.

Sincerely,

Eric L. Blischke
Project Manager
Waste Management and Cleanup Division

cc: Mike Rosen, NWR/DEQ
Rod Struck, NWR/DEQ
Amos Kamerer, Koppers Industries

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PORTLAND OR

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

December12, 2002

Mr. Amos Kamerer
Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon 97210-3663

HAI Project #2708

SUBJECT: Groundwater Quality Data, Above-Ground Storage Tank Support Piling Monitoring, Koppers Industries, Inc. (KII) Lease Area, NW Natural-Gasco Facility, 7540 NW St. Helens Road, Portland, Oregon

Dear Mr. Kamerer:

On behalf of NW Natural, HAI is providing to KII a summary of groundwater quality data through July 2002 (Tables 1, 2, and 3) as obtained from wells at your facility that monitor groundwater conditions down-gradient from the coal tar pitch above-ground tank that was constructed by KII in 1999. (Figure 1).

As you are aware, monitoring wells MW-14-110, MW-15-50, and MW-15-66 (all down-gradient of the tank foundation pilings) are being monitored on a quarterly sampling frequency as per a December 14, 1999 assessment plan[1] approved by the Oregon Department of Environmental Quality. The assessment plan was implemented such that conditions down-gradient of the tank may receive on-going monitoring to ensure that piling installation activities completed in May 1999 do not exacerbate pre-existing environmental conditions at the site.

If there are any comments or questions, please contact either the undersigned.

Sincerely,

Robert Ede, R.G.
Associate

c: Mr. Bob Wyatt, NW Natural
Ms. Patty Dost, Schwabe, Williamson & Wyatt

[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).

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Table 1 - Summary of Historical Analytical Results for Groundwater Samples: BTEX, Total PAHs, Total Phenols, and Cyanide
Koppers Industries, Inc. Coal Tar Pitch Monitoring Program
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 9010 mg/l (ppm)	EPA 8270 ug/l (ppb)
				Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	Carcinogenic PAHs	Total PAHs	Total Cyanide	Amenable Cyanide	Total Phenols
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	45.6	0.75	1.85	2.09	50.3	ND	0.41	0.05	ND>0.02	-
	991027-MW14-110-09	2708-W055	27-Oct-99	28.6	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	7.84	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	-
	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	-
	001220-MW14-110-102	2708-W068	20-Dec-00	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	ND	0.14	-	ND>0.02	-
	010328-MW14-110-108	2708-W071	28-Mar-01	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	ND	0.23	ND>0.02	ND>0.02	-
	010628-MW14-110-102	2708-W074	28-Jun-01	ND>0.500	ND>0.500	ND>0.500	ND>1.50	ND	ND	0.18	-	0.025	-
	011009-MW14-110-105	2708-W075	9-Oct-01	ND>0.500	ND>0.500	ND>0.500	ND>1.50	ND	ND	ND	0.05	-	-
	011213-MW14-110-101	2708-W077	13-Dec-01	ND>0.500	ND>0.500	ND>0.500	ND>1.50	ND	ND	ND	-	ND>0.0200	-
	020404-MW14-110-108	0204075-05A	4-Apr-02	ND>1.00	ND>1.00	ND>1.00	ND>2.00	ND	ND	0.1	ND>0.0400	ND>0.0400	-
	020711MW14-110-101	-	11-Jul-02	ND>0.500	ND>0.500	ND>0.500	ND>1.50	ND	ND	ND	ND>0.0400	ND>0.0400	-
MW-15-50	990728-MW15-50-04	2708-W048	28-Jul-99	95,100.	863.	223.	2,420.	98,606.	ND	18,460.	ND>0.020	ND>0.02	-
	991029-MW15-50-25	2708-W057	29-Oct-99	8,910.	134.	59.2	500.	9,603.2	ND	762.	0.15	ND>0.02	-
	000403-MW15-50-125	2708-W062	3-Apr-00	44,800.	620.	222.	2,300.	47,942.	3.31	5,610.74	0.07	ND>0.02	-
	000615-MW15-50-105	2708-W064	15-Jun-00	1,490.	14.3	6.62	42.	1,552.9	267.65	475.	-	ND>0.02	-
	000615-MW15-50-106	2708-W064	15-Jun-00	1,270.	10.	5.16	28.4	1,313.6	253.67	451.	-	ND>0.02	-
	001005-MW15-50-14	2708-W066	5-Oct-00	2,700.	5.65	3.83	15.2	2,724.7	74.36	128.96	-	ND>0.02	-
	001221-MW15-50-105	2708-W069	21-Dec-00	40,200.	356.	176.	1,620.	42,352.	158.93	9,661.17	-	0.03	-
	001221-MW15-50-106	2708-W069	21-Dec-00	46,200.	ND>125	ND>125	1,070.	47,270.	199.16	8,730.64	-	0.06	-
	010330-MW15-50-124	2708-W073	30-Mar-01	47,600.	270.	133.	1,250.	49,253.	87.50	7,233.48	0.15	0.09	-
	010628-MW15-50-105	2708-W074	28-Jun-01	2,580.	ND>25	ND>25	ND>75	2,580.	2.61	189.	-	0.089	-
	010628-MW15-50-106	2708-W074	28-Jun-01	3,420.	ND>25	ND>25	ND>75	3,420.	8.33	231.	-	0.105	-
	011010-MW15-50-111	2708-W076	10-Oct-01	44,000.	110.	208.	960.	45,278.	14.52	3,839.07	0.11	-	-
	011010-MW15-50-112	2708-W076	10-Oct-01	44,700.	109.	210.	970.	45,989.	48.20	59,423.3	0.07	-	-
	011214-MW15-50-104	2708-W078	14-Dec-01	64,000.	ND>500	ND>500	ND>1,500	64,000.	0.98	4,666.89	-	ND>0.0200	-
	011214-MW15-50-105	2708-W078	14-Dec-01	63,000.	ND>500	ND>500	ND>1,500	63,000.	1.27	6,034.96	-	ND>0.0200	-
	020405-MW15-50-119	0204090-07A	5-Apr-02	57,000.	ND>1.00	ND>1.00	ND>2.00	57,000.	9.76	4,353.97	0.1	ND>0.0400	-
	020711-MW15-50-104	-	11-Jul-02	53,500.	ND>250	ND>250	ND>750	53,500.	15.50	3,796.	ND>0.0400	ND>0.0400	-
	020711-MW15-50-105	-	11-Jul-02	58,000.	ND>250	ND>250	ND>750	58,000.	24.80	5,788.	ND>0.0400	ND>0.0400	-
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	2.5	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	-	-	-	-	-
	991026-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	6.93	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	22.1	-	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	1.36	2.34	-	ND>0.02	-
	001221-MW15-66-104	2708-W069	21-Dec-00	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	0.8	1.34	-	ND>0.02	-
	010328-MW15-66-107	2708-W071	28-Mar-01	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	0.61	1.1	ND>0.02	ND>0.02	-
	010628-MW15-66-104	2708-W074	28-Jun-01	1.65	ND>0.500	ND>0.500	ND>1.50	1.65	ND	0.28	-	ND>0.02	-
	011010-MW15-66-110	2708-W076	10-Oct-01	ND>0.500	ND>0.500	ND>0.500	ND>1.51	ND	ND	ND	ND>0.02	-	-
	011213-MW15-66-103	2708-W077	13-Dec-01	ND>0.500	ND>0.500	ND>0.500	ND>1.50	ND	ND	ND	-	ND>0.0200	-
	020404-MW15-66-107	0204075-04A	4-Apr-02	ND>1.00	ND>1.00	ND>1.00	ND>2.00	ND	ND	0.12	ND>0.0400	ND>0.0400	-
	020711-MW15-66-103	-	11-Jul-02	ND>0.500	ND>0.500	ND>0.500	ND>1.50	ND	ND	ND	ND>0.0400	ND>0.0400	-

Note:
- '-' = Not Analyzed
- # = Reference Level not established
- BTEX = benzene, toluene, ethylbenzene, and xylenes
- DEQ = Oregon Department of Environmental Quality
- EPA = U.S. Environmental Protection Agency
- mg/l = milligrams per 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

1 = Sample number prefix: 2708-

Updated: 12/12/02 MSM
File Name: GW Rslts_Kll _thru 07/02 ; 01 Summary - All

HAHN AND ASSOCIATES, INC.

Koppers019899

Table 2 - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270
Koppers Industries, Inc. Coal Tar Pitch Monitoring Program
NW Natural - Gasco Facility
Portland, Oregon

Project No. 2708

PAHs by EPA Method 8270 (SIM)				Analytical Results ug/l (ppb)																	
				Carcinogenic PAHs							Non-carcinogenic PAHs										
Well Number	HAI Sample Number	Chain of Custody Number	Sample Date	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Chrysene	Dibenzo (a,h) anthracene	Indeno (1,2,3-cd) pyrene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (g,h,i) perylene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
MW-14-110	981116-MW14-110-06	2708-W037	16-Nov-98	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	990216-MW14-110-005	2708-W042	16-Feb-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.11	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.1
	990512-MW14-110-09	2708-W045	12-May-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.14	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.14	ND [1]	ND [1]	ND	0.3
	990823-MW14-110-06	2708-W049	23-Aug-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.29	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.12	ND [1]	ND [1]	ND	0.4
	991027-MW14-110-09	2708-W055	27-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.26	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.3
	991027-MW14-110-09	2708-W055	27-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.26	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	3
	000329-MW14-110-109	2708-W060	29-Mar-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.42	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	.4
	000329-MW14-110-110	2708-W060	29-Mar-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.42	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.4
	000615-MW14-110-102	2708-W064	15-Jun-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.18	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.2
	001005-MW14-110-06	2708-W066	5-Oct-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	001220-MW14-110-102	2708-W068	20-Dec-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.14	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.1
	010328-MW14-110-108	2708-W071	28-Mar-01	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.23	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.2
	011009-MW14-110-105	2708-W075	9-Oct-01	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	011213-MW14-110-101	2708-W077	13-Dec-01	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	020404-MW14-110-108	0204075-05A	4-Apr-02	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.1	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.1
	020711-MW14-110-101	-	11-Jul-02	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
MW-15-50	990728-MW15-50-04	2708-W048	28-Jul-99	ND [4]	ND [4]	ND [4]	ND [4]	ND [4]	ND [4]	ND [4]	50.	8,510.	ND [4]	ND [4]	ND [4]	83.	9,700.	117.	ND [4]	ND	18,460.
	991029-MW15-50-25	2708-W057	29-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	20.	ND [1]	ND [1]	ND [1]	ND [1]	716.	26.	ND [1]	ND	762.
	000403-MW15-50-125	2708-W062	3-Apr-00	0.79	0.51	0.49	0.55	0.73	ND [1]	0.24	22.	41.6	2.91	0.25	6.01	23.6	5,480.	25.9	5.16	3.31	5,611.
	000615-MW15-50-105	2708-W064	15-Jun-00	43.6	45.5	38.5	57.1	40.5	8.95	33.5	2.91	0.59	4.11	41.8	69.7	1.66	1.23	25.	60.1	267.65	475.
	000615-MW15-50-106	2708-W064	15-Jun-00	40.	44.1	36.3	53.5	38.3	8.87	32.6	2.96	0.77	4.1	40.2	65.2	1.71	1.23	23.8	57.3	253.67	451.
	001005-MW15-50-14	2708-W066	5-Oct-00	10.7	19.7	6.97	16.4	9.88	2.52	8.21	1.51	0.96	1.47	8.14	15.5	1.06	2.8	6.44	16.7	74.38	129.
	001221-MW15-50-105	2708-W069	21-Dec-00	26.1	39.6	14.8	32.2	20.8	4.13	21.3	43.5	66.1	6.14	24.	40.1	74.6	9,200.	10.9	36.9	158.93	9,661.
	001221-MW15-50-106	2708-W069	21-Dec-00	33.1	48.7	18.1	40.8	26.5	4.96	27.	52.4	70.6	6.58	30.3	50.3	78.	8,180.	12.6	50.7	199.16	8,731.
	010330-MW15-50-124	2708-W073	30-Mar-01	11.2	11.8	18.9	13.4	12.4	5.4	14.4	35.4	59.	9.58	15.1	22.7	45.7	6,860.	76.1	22.4	87.5	7,233.
	011010-MW15-50-111	2708-W076	10-Oct-01	2.47	2.62	2.08	2.95	2.37	0.47	1.56	18.1	29.7	2.19	1.77	5.33	26.	3,700.	37.2	4.26	14.52	3,839.
	011010-MW15-50-112	2708-W076	10-Oct-01	7.6	8.4	7.4	9.3	8.	1.8	5.7	44.6	60.4	4.2	6.4	12.7	53.9	59,100.	78.3	14.6	48.2	59,423.
	011214-MW15-50-104	2708-W078	14-Dec-01	0.35	0.1	0.1	0.1	0.33	ND [1]	ND [1]	26.8	43.8	3.	ND [1]	3.29	34.3	4,510.	42.8	2.27	0.98	4,667.
	011214-MW15-50-105	2708-W078	14-Dec-01	0.42	0.14	0.13	0.17	0.41	ND [1]	ND [1]	27.8	45.9	3.1	ND [1]	3.28	38.1	5,870.	45.6	2.33	1.27	6,035.
	020405-MW15-50-119	0204090-07A	5-Apr-02	1.57	1.33	1.39	1.76	1.81	0.61	1.29	20.	30.	3.29	1.5	5.75	26.	4,220.	34.	3.67	9.76	
	020711-MW15-50-104	-	11-Jul-02	2.5	2.6	2.7	2.9	3.1	ND [2]	1.7	19.7	31.3	4.	2.1	7.9	26.6	3,640.	41.2	7.6	15.5	
	020711-MW15-50-105	-	11-Jul-02	3.4	3.6	5.4	4.4	5.6	ND [3]	2.4	27.6	41.6	ND [3]	3.4	11.6	35.8	5,580.	52.6	10.6	24.8	5,788.
MW-15-66	990728-MW15-66-03	2708-W048	28-Jul-99	0.15	0.26	ND [1]	0.16	0.15	ND [1]	0.11	0.11	ND [1]	ND [1]	0.14	0.3	ND [1]	0.57	0.17	0.34	0.83	2.5
	991028-MW15-66-07	2708-W054	26-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	000329-MW15-66-108	2708-W060	29-Mar-00	0.57	0.59	0.6	0.77	0.67	0.18	0.53	ND [1]	ND [1]	0.11	0.66	0.96	ND [1]	ND [1]	0.33	0.96	3.91	6.9
	000615-MW15-66-104	2708-W064	15-Jun-00	1.93	1.96	1.61	2.64	1.91	0.57	1.55	0.14	ND [1]	0.39	2.04	3.32	ND [1]	ND [1]	1.07	2.92	12.17	22.1
	001005-MW15-66-08	2708-W066	5-Oct-00	0.23	0.4	0.17	0.32	0.24	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.41	ND [1]	ND [1]	0.14	0.43	1.36	2.3
	001221-MW15-66-104	2708-W069	21-Dec-00	0.14	0.19	0.1	0.15	0.12	ND [1]	0.1	ND [1]	ND [1]	ND [1]	0.13	0.21	ND [1]	ND [1]	ND [1]	0.2	0.8	1.3
	010328-MW15-66-107	2708-W071	28-Mar-01	0.11	0.11	0.12	0.14	0.13	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.2	ND [1]	ND [1]	0.1	0.19	0.61	1.1
	011010-MW15-66-110	2708-W076	10-Oct-01	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	011213-MW15-66-103	2708-W077	13-Dec-01	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	020404-MW15-66-107	0204075-04A	4-Apr-02	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.12	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.1
	020711-MW15-66-103	-	11-Jul-02	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND

Note:
# = Reference Level not established
EPA = U.S. Environmental Protection Agency
ND = not detected above detection limit indicated

1 = Sample number prefix: 2708-

ODEQ = Oregon Department of Environmental Quality
PAHs = polynuclear aromatic hydrocarbons

ppb = parts per billion
ug/l = micrograms per liter

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)

Updated: 12/12/02 MSM
File Name: GW Rslts_Kll _thru 07/02 ; 02 PAHs-All

Koppers019900

Table 3 - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
Koppers Industries, Inc. Coal Tar Pitch Monitoring Program
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	HAI Sample Number [1]	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	981116-MW14-110-06	2708-W037	16-Nov-98		0.012					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	990216-MW14-110-005	2708-W042	16-Feb-99		0.013					ND [c]		ND [c]		ND [c]			ND [c]					0.03	
	990512-MW14-110-09	2708-W045	12-May-99		0.012					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	990823-MW14-110-06	2708-W049	23-Aug-99		0.011					ND [c]		ND [c]		ND [c]			ND [c]					ND [d]	
	991027-MW14-110-09	2708-W055	27-Oct-99		0.01					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	991027-MW14-110-10	2708-W055	27-Oct-99		0.01					ND [c]		ND [c]		ND [c]			ND [c]					0.0054	
	000329-MW14-110-109	2708-W060	29-Mar-00		0.012					ND [c]		ND [c]		ND [c]			ND [c]					0.0107	
	000329-MW14-110-110	2708-W060	29-Mar-00		0.012					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	000615-MW14-110-102	2708-W064	15-Jun-00		0.014					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	001005-MW14-110-06	2708-W066	5-Oct-00		0.041					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	001220-MW14-110-102	2708-W068	20-Dec-00		0.013					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	010328-MW14-110-108	2708-W071	28-Mar-01		0.013					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	011009-MW14-110-105	2708-W075	9-Oct-01		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					ND [d]	
	011213-MW14-110-101	2708-W077	13-Dec-01		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					0.0104	
	020404-MW14-110-108	0204075-05A	4-Apr-02		0.01					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	020711-MW14-110-101	-	11-Jul-02		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
MW-15-50	991028-MW15-50-25	2708-W057	29-Oct-99		0.011					ND [c]		ND [c]		ND [c]			ND [c]					0.0096	
	000403-MW15-50-125	2708-W062	3-Apr-00		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					0.0202	
	000615-MW15-50-105	2708-W064	15-Jun-00		ND [c]					0.006		ND [c]		ND [c]			0.0064					0.0359	
	000615-MW15-50-106	2708-W064	15-Jun-00		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					0.0388	
	001005-MW15-50-14	2708-W066	5-Oct-00		0.0054					0.0176		0.0081		ND [c]			0.0121					0.0393	
	001221-MW15-50-105	2708-W069	21-Dec-00		0.0134					0.0585		0.0188		0.011			0.042					0.0272	
	001221-MW15-50-106	2708-W069	21-Dec-00		0.0123					0.0193		0.0402		0.0128			0.0306					0.0334	
	010330-MW15-50-124	2708-W073	30-Mar-01		0.0098					0.0058		ND [c]		ND [c]			0.0067					0.0107	
	011010-MW15-50-111	2708-W076	10-Oct-01		ND [c]					ND [c]		0.0063		ND [c]			ND [c]					0.0646	
	011010-MW15-50-112	2708-W076	10-Oct-01		ND [c]					ND [c]		0.004		ND [c]			ND [c]					0.0412	
	011214-MW15-50-104	2708-W078	14-Dec-01		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					0.0089	
	011214-MW15-50-105	2708-W078	14-Dec-01		ND [c]					ND [c]		ND [c]		ND [c]			0.011					0.0084	
	020405-MW15-50-119	0204090-07A	5-Apr-02		0.008					ND [c]		ND [c]		ND [c]			ND [c]					0.0204	
	020711-MW15-50-104	-	11-Jul-02		0.0118					0.0187		0.0183		0.0154			0.0228					0.0929	
	020711-MW15-50-104	-	11-Jul-02		0.0103					0.0189		0.0219		0.0166			0.0232					0.0972	
MW-15-66	991028-MW15-66-07	2708-W054	28-Oct-99		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	000329-MW15-66-108	2708-W060	29-Mar-00		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	000615-MW15-50-104	2708-W064	15-Jun-00		0.005					ND [c]		ND [c]		ND [c]			ND [c]					0.0214	
	001005-MW15-66-08	2708-W066	5-Oct-00		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	001221-MW15-66-104	2708-W069	21-Dec-00		0.0055					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	010328-MW15-66-107	2708-W071	28-Mar-01		0.0068					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	011010-MW15-66-110	2708-W076	10-Oct-01		ND [c]					ND [c]		ND [e]		ND [c]			ND [c]					0.0241	
	011213-MW15-66-103	2708-W077	13-Dec-01		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					0.0133	
	020404-MW15-66-107	0204075-04A	4-Apr-02		ND [c]					ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	
	020711-MW15-66-103	-	11-Jul-02							ND [c]		ND [c]		ND [c]			ND [c]					ND [c]	

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)
f = detection limit is 0.0015 mg/l (ppm)

g = detection limit is 0.001 mg/l (ppm)
h = detection limit is 0.003 mg/l (ppm)
# = Reference Levels not established

1 = Sample number prefix: 2708-

Koppers019901

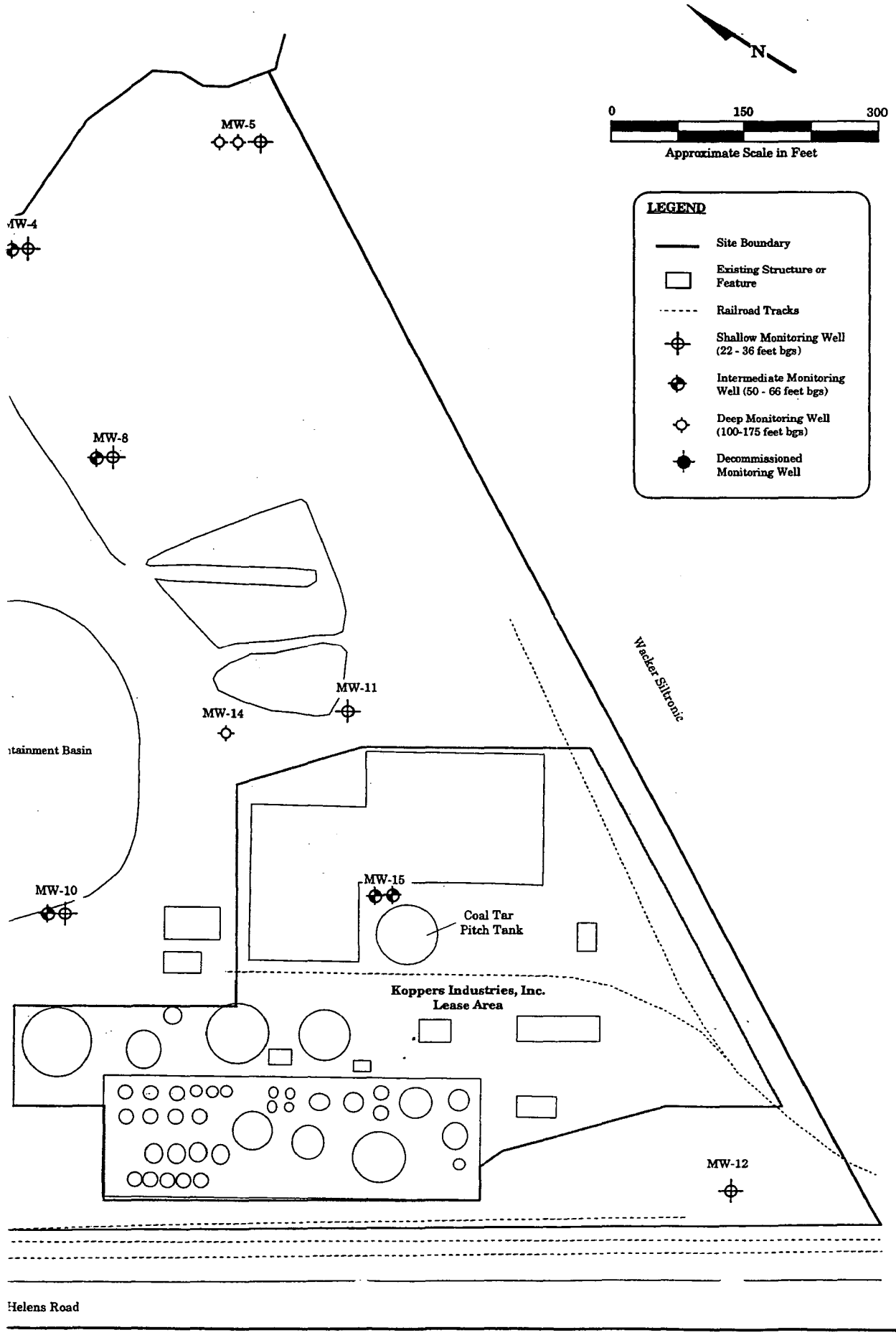

Figure 1

Monitoring Well Location 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
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September 2002

Project No. 2708

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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.

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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).

- 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.

- 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.

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

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	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	0.8	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	1.85	2.09	50.3	ND	0.41	0.05	ND>0.02
	991027-MW14-110-09	2708-W055	27-Oct-99	28.8	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	7.84	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	8.8	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	4.86	ND>0.5	ND>0.5	ND>1.5	4.9	ND	0.2		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	990726-MW15-50-04	2708-W048	26-Jul-99	85,100.	883.	223.	2,420.	88,606.	ND	18,460.	ND>0.020	ND>0.02
	991029-MW15-50-25	2708-W057	29-Oct-99	8,910.	134.	59.2	500.	9,603.2	ND	762.	0.16	ND>0.02
	000403-MW15-50-125	2708-W062	3-Apr-00	44,800.	620.	222.	2,300.	47,942.	5.31	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	266.	475.		ND>0.02
	000615-MW15-50-106	2708-W064	15-Jun-00	1,270.	10.	5.16	28.4	1,313.6	254.	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	990726-MW15-66-03	2708-W048	26-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				
	991026-MW15-66-07	2708-W064	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	1.91	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	1.31	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.[4]	#

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. 286 3681 1900,11-03 15:59 #587 P.06/09

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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

Project No. 2706

PAHs by EPA Method 8270 (SIM)				Analytical Results - ug/l (ppb)																		
				Carcinogenic PAHs							Non-carcinogenic PAHs											
Well Number	Sample Number	Chain of Custody Number	Sample Date	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 PAHs
MW-14-110	981116-MW14-110-09	2706-W037	16-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
	990216-MW14-110-005	2706-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	2706-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	2706-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-MW14-110-09	2706-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
	991027-MW14-110-09	2706-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	2706-W060	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	0.4
	000329-MW14-110-110	2706-W060	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	0.4
	000615-MW14-110-102	2706-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	0.2
	001005-MW14-110-08	2706-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	ND
MW-15-50	990728-MW15-50-04	2706-W048	28-Jul-99	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	50.	6,510.	ND [d]	ND [d]	ND [d]	63.	9,700.	117.	ND [d]	ND	16,480.
	991028-MW15-50-25	2706-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-MW15-50-125	2706-W062	3-Apr-00	0.79	0.51	0.46	0.55	0.75	ND [a]	0.34	22.	41.6	2.91	0.25	8.01	23.6	5,480.	25.9	5.19	3.31	5,611.
	000615-MW15-50-105	2706-W064	15-Jun-00	43.9	45.9	38.6	57.1	49.5	6.83	33.6	2.91	0.59	4.11	41.8	99.7	1.66	1.23	25.	60.1	267.55	475.
	000615-MW15-50-106	2706-W064	15-Jun-00	40.	44.1	38.1	53.5	38.3	6.67	32.6	2.96	0.77	4.1	40.2	95.1	1.71	1.23	23.8	57.3	253.07	451.
	001005-MW15-50-14	2706-W068	5-Oct-00	10.7	19.7	8.97	16.4	9.88	2.52	8.21	1.51	0.96	1.47	8.14	9.5	1.06	2.6	6.44	16.7	74.38	129.
MW-15-66	990728-MW15-66-03	2706-W048	28-Jul-99	0.15	0.28	ND [a]	0.16	0.15	ND [a]	0.14	0.11	ND [d]	ND [d]	0.14	0.3	ND [d]	0.57	0.17	0.34	0.83	2.5
	991028-MW15-66-07	2706-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 [a]	ND	ND
	000329-MW15-66-108	2706-W060	29-Mar-00	0.57	0.58	0.6	0.77	0.67	0.18	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-MW15-50-104	2706-W064	15-Jun-00	1.93	1.96	1.81	2.84	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-MW15-66-08	2706-W068	5-Oct-00	0.13	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]				#	#	#	2	#	#	#	#	#	#	#	#	#	#	#	#	#	#
EPA Region 9 Preliminary Remedial Goals (PRGs) for Tap Water (1999)				0.092	0.092	0.92	0.0092	9.2	0.0092	0.092	370	#	#	1,800	#	1,500	240	9.2	#	180	#	#
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water [3]				#	#	#	#	#	#	#	620 [3]	#	#	#	#	54	#	620 [3]	#	#	0.031 [4]	#

Notes:
# = 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

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Table 3 - Summary of Historical Analytical Results for Groundwater Samples - November 1998 to Present
Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series

Remedial Investigation
NW Natural - Casco Facility
Portland, Oregon

Project No. 2708

Priority Pollutant Metals by EPA Methods 6010, 7000, and 200 Series				Analytical Results (mg/l (ppm))																				
Well Number	Lab 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	981118-MW14-110-06	2708-WO37	18-Nov-98		0.012					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
	990218-SAM14-110-005	2708-WO42	18-Feb-99		0.013					ND [1]		ND [1]		ND [1]			ND [1]					0.03	
	990512-MW14-110-09	2708-WO45	12-May-99		0.013					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
	990823-MW14-110-06	2708-WO49	23-Aug-99		0.011					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
	991027-MW14-110-09	2708-WO55	27-Oct-99		0.01					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
	991027-MW14-110-10	2708-WO55	27-Oct-99		0.01					ND [1]		ND [1]		ND [1]			ND [1]					0.005	
	000329-MW14-110-109	2708-WO60	29-Mar-00		0.013					ND [1]		ND [1]		ND [1]			ND [1]					0.011	
	000329-MW14-110-110	2708-WO60	29-Mar-00		0.013					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
	000615-MW14-110-102	2708-WO64	15-Jun-00		0.014					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
	001005-MW14-110-06	2708-WO68	5-Oct-00		0.041					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
MW-15-50	981028-MW15-50-25	2708-WO57	28-Oct-98		0.011					ND [1]		ND [1]		ND [1]			ND [1]					0.01	
	000406-MW15-50-125	2708-WO62	3-Apr-00		ND [1]					ND [1]		ND [1]		ND [1]			ND [1]					0.02	
	000615-MW15-50-105	2708-WO64	15-Jun-00		ND [1]					0.006		ND [1]		ND [1]			0.0064					0.0049	
	000615-MW15-50-106	2708-WO64	15-Jun-00		ND [1]					ND [1]		ND [1]		ND [1]			ND [1]					0.0048	
	001005-MW15-50-11	2708-WO68	5-Oct-00		0.0034					0.0178		0.0081		ND [1]			0.0121					0.0093	
MW-15-65	981028-MW15-65-07	2708-WO54	28-Oct-98		ND [1]					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
	000329-MW15-65-108	2708-WO60	29-Mar-00		ND [1]					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
	000615-MW15-50-104	2708-WO64	15-Jun-00		0.008					ND [1]		ND [1]		ND [1]			ND [1]					0.021	
	001005-MW15-65-08	2708-WO68	5-Oct-00		ND [1]					ND [1]		ND [1]		ND [1]			ND [1]					ND [1]	
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.	0.15	0.15	0.002	0.1	0.1	0.05	0.1	0.002	5.	5.
EPA Region 9 Preliminary Remediation Goals (PRGs) for Tap Water (10/99)				0.015	0.000045	0.000045	0.073	0.018	0.018	0.11	0.11	1.4	1.4	6	6	0.0039	0.73	0.73	0.18	0.18	6	11.	11.
ODEQ Ambient Water Quality Criteria (AWQC) for Surface Water [2]				1.6 [3]	0.000017 [4]	0.000017 [3]	0.00017 [3]	0.0018 [3]	0.0011 [3]	0.011 [3]	0.011 [3]	0.012 [3]	0.012 [3]	0.0032 [3]	0.0032 [3]	0.000012 [3]	0.1 [3]	0.1 [3]	0.005 [3]	0.00012 [3]	0.04 [3]	0.19 [3]	0.17 [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)

f = 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 MW-35 and MW-4-57 in August 1997. Tables attribute data to the correct well.

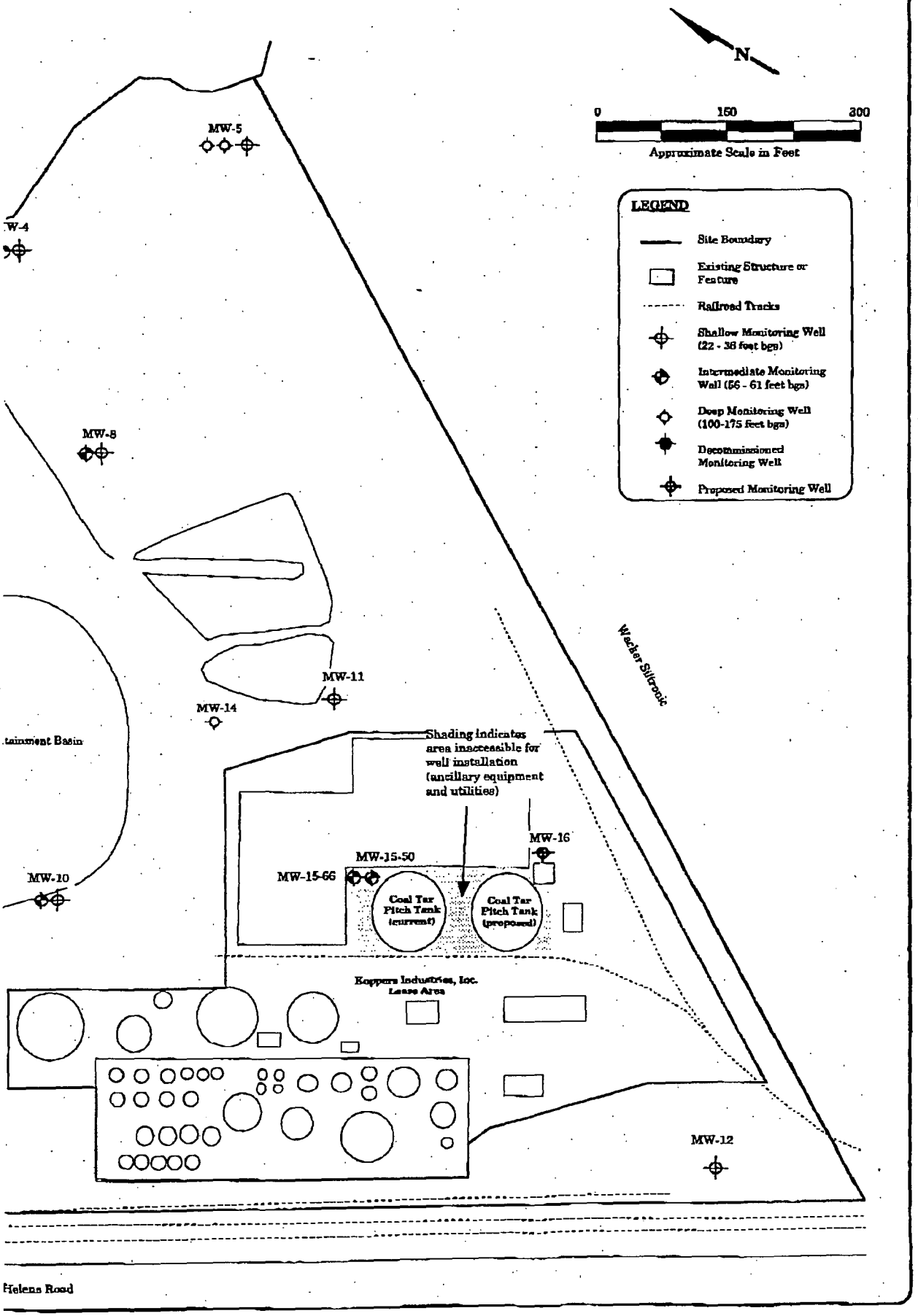


Figure 1

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

INDUSTRIES

Po ...nd, Oregon 97210-3663
Phone: (503) 286-3681
Fax: (503) 285-2831
Web Page: www.koppers.com

FAX TRANSMITTAL

TO: J. Dietz, T. Self, M. Cilly, B. Meisinger DATE: 8/28/00

FROM: Amos TOTAL # OF PAGES: 10

The Attached is Self-explanatory

I have told Bob Wyatt, NWN that we want to have this resolved by 10/1/00

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

File : Portland

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

August 24, 2000

Mr. Eric Blischke
Oregon Department of Environmental Quality
Voluntary Cleanup and Site Assessment Section
2020 SW 4th Avenue
Portland, Oregon 97201

HAI Project No. 2708

SUBJECT: 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 a 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).

As you are aware, monitoring wells MW-14-110, MW-15-50, and MW-15-66; all down-gradient of the tank foundation pilings within the Alluvial Sand water-bearing zone (WBZ); 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 for the new coal tar pitch tank may be conducted. Pilings were driven in May 1999, while wells MW-15-50 and MW-15-66 were installed in July 1999, and well MW-14-110 was installed in October 1998.

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 location could be ascertained. Specifically, monitoring activities were designed such that a determination as to 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 in this area during 2001.

As provided within the Assessment Plan (HAI 1999), monitoring activities were completed over the course of one year 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 June 2000 sampling event, one year of groundwater quality data are now available, and an interpretation of trends in contaminant concentrations are provided herein.

---

[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.

Figures 2 and 3 provide charts depicting benzene and total PAH concentrations through time at the MW-15-50 well location. As depicted on Figure 2, and as summarized on Table 1, 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 total PAH concentrations have declined from a high of 18,460 ppb to a low of 451 ppb over the same time-frame.

With regard to well MW-15-66, screened just beneath well MW-15-50 at the base of the Alluvial Sand WBZ, samples from this well have consistently indicated a lack of detectable benzene concentrations, while total PAH concentrations have remained low (Tables 1 and 2).

Furthermore, since installation of the tank support pilings in May 1999, no increasing concentrations of PAHs or benzene have been identified at the well MW-14-110 location, screened at the base of the Alluvial Sand WBZ approximately 250 feet down-gradient of the tank support pilings (Tables 1 and 2, Figures 4 and 5).

Under a scenario involving on 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 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 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 greater concentration within the Alluvial Sand WBZ at down-gradient portions of the site.

Based on the findings described herein, it is requested that DEQ remove the moratorium on further tank construction activities at the site.

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

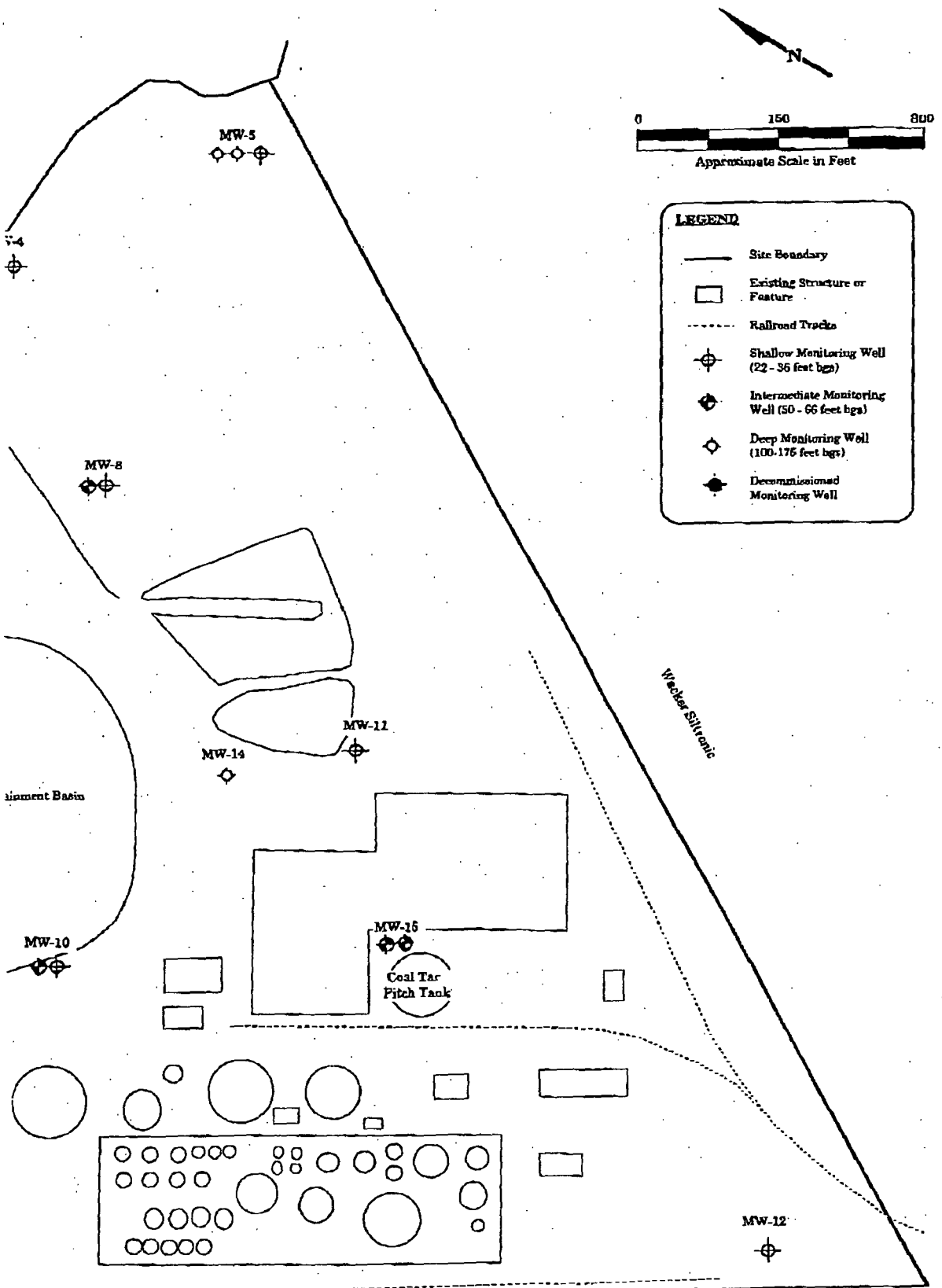


Figure 1

Monitoring Well Location 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

January 2000

Project No. 2708

Table 1 - Summary of Historical Analytical Results for Groundwater Samples: BTEX, Total PAHs, and Cyanide (November 1998 to Present)
Remedial Investigation
Northwest 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-MW14-110-05	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	13.7	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	48.6	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	28.6	0.81	1.45	ND>1.5	30.8	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	7.64	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
MW-15-50	980728-MW15-50-04	2708-W048	28-Jul-99	85,100.	863.	223.	2,420.	88,606.	ND	16,460.	ND>0.020	ND>0.02
	991029-MW15-50-25	2708-W057	29-Oct-99	8,910.	134.	58.2	500.	9,603.2	ND	762.	0.16	ND>0.02
	000403-MW15-50-125	2708-W062	3-Apr-00	44,600.	620.	222.	2,300.	47,942.	3.31	5,611.	0.07	ND>0.02
	000615-MW15-50-105	2708-W064	15-Jun-00	1,480.	14.3	8.82	42.	1,562.9	288	475.		ND>0.02
	000615-MW15-50-106	2708-W064	15-Jun-00	1,270.	10.	5.16	26.4	1,313.6	284	451.		ND>0.02
MW-15-66	980728-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				
	991026-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-MW15-50-104	2708-W064	15-Jun-00	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	12.17	22.		ND>0.02
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				5	1,000.	700.	10,000.	a	a	a	0.2	a
EPA Region 9 Preliminary Remediation Goals (PRGs) for Tap Water (10/99)				0.41	720.	1,300.	1,400.	a	a	a	a	0.73
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water[2]				40.[3]	424.[3]	1,400.[4]	a	a	0.031.[3]	a	0.0652.[3]	a

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
a = 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. 286 3681 1900-08-28 13:38 #380 P.05/10

Koppers019916

Table 2 - Summary of Historical Analytical Results for Groundwater Samples; PAHs by EPA Method 8270 (November 1998 to Present)

Remedial Investigation
Northwest Natural - Gasco Facility
Portland, Oregon

Project No. 2708

PAHs by EPA Method 8270 (SIM)				Analytical Results ug/l (ppb)																		
				Carcinogenic PAHs							Non-carcinogenic PAHs											
Well Number	Sample Number	Chain of Custody Number	Sample Date	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 PAHs
MW-14-110	981116-MW14-110-06	2708-W037	16-Nov-98	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	990216-MW14-110-006	2708-W042	16-Feb-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.11	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.1
	990512-MW14-110-09	2708-W045	12-May-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.14	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.14	ND [1]	ND [1]	ND	0.3
	990823-MW14-110-06	2708-W049	23-Aug-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.29	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.12	ND [1]	ND [1]	ND	0.4
	991027-MW14-110-09	2708-W055	27-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.26	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.3
	991027-MW14-110-09	2708-W055	27-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.28	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.3
	000329-MW14-110-109	2708-W060	29-Mar-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.42	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.4
	000329-MW14-110-110	2708-W060	29-Mar-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.42	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.4
	000615-MW14-110-102	2708-W064	15-Jun-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.18	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.2
MW-15-50	990729-MW15-50-04	2708-W048	29-Jul-99	ND [4]	ND [4]	ND [4]	ND [4]	ND [4]	ND [4]	ND [4]	50.	6,510.	ND [4]	ND [4]	ND [4]	83.	9,700.	117.	ND [4]	ND	16,460.
	991029-MW15-50-25	2708-W057	29-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	20.	ND [1]	ND [1]	ND [1]	ND [1]	716.	26.	ND [1]	ND	762.
	000403-MW15-50-125	2708-W062	3-Apr-00	0.79	0.91	0.49	0.55	0.73	ND [1]	0.34	22.	41.6	2.91	0.25	6.01	23.6	5,480.	25.9	5.16	3.31	5,611.
	000615-MW15-50-105	2708-W064	15-Jun-00	43.6	45.5	38.5	57.1	40.5	6.95	33.5	2.91	0.59	4.11	41.6	69.7	1.69	1.23	25.	60.1	267.65	475.
	000615-MW15-50-106	2708-W064	15-Jun-00	40.	44.1	36.3	53.9	38.1	6.67	32.6	2.86	0.77	4.1	40.2	66.1	1.71	1.23	23.8	57.3	253.67	451.
MW-15-68	990728-MW15-68-03	2708-W048	28-Jul-99	0.15	0.36	ND [1]	0.16	0.15	ND [1]	0.11	0.11	ND [1]	ND [1]	0.14	0.3	ND [1]	0.57	0.17	0.34	0.83	2.5
	991028-MW15-68-07	2708-W054	28-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	000329-MW15-68-109	2708-W060	29-Mar-00	0.67	0.69	0.6	0.77	0.67	0.16	0.53	ND [1]	ND [1]	0.11	0.68	0.99	ND [1]	ND [1]	0.33	0.99	3.91	6.9
	000615-MW15-50-104	2708-W064	15-Jun-00	1.93	1.99	1.61	2.64	1.91	0.57	1.55	0.14	ND [1]	0.39	2.04	3.32	ND [1]	ND [1]	1.07	2.92	12.17	22.1
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				#	#	#	2	#	#	#	#	#	#	#	#	#	#	#	#	#	#
EPA Region 9 Preliminary Remedial Goals (PRGs) for Tap Water (1999)				0.092	0.092	0.92	0.0092	9.2	0.0092	0.092	370.	#	1,500	#	1,500	240.	0.2	#	180.	#	#
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water [3]				#	#	#	#	#	#	#	520. [2]	#	#	#	54. [2]	#	620. [2]	#	#	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

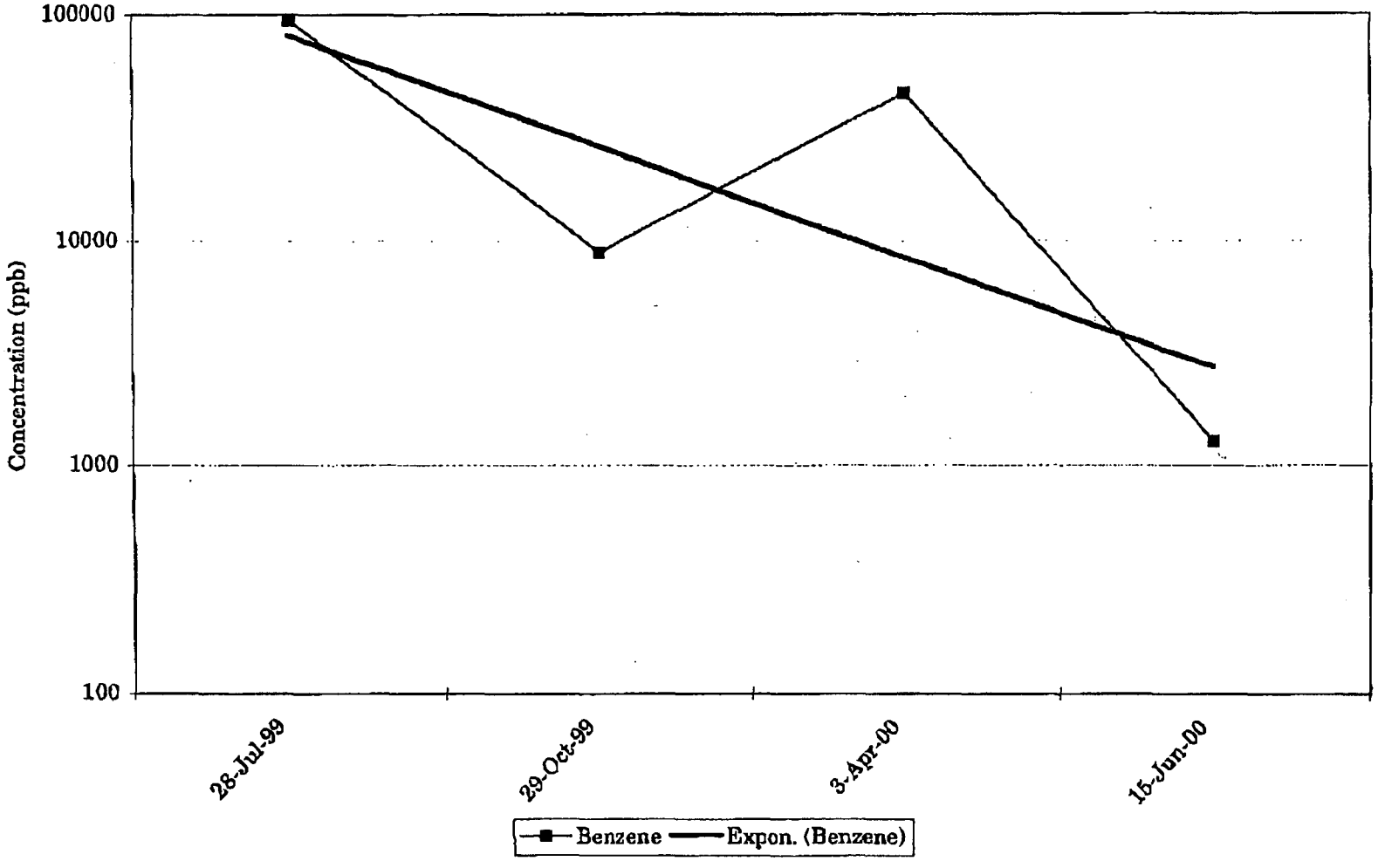
a = detection limit is 0.1 ug/l (ppb)
b = detection limit is 1. ug/l (ppb)
c = detection limit is 2. ug/l (ppb)
d = detection limit is 10. ug/l (ppb)
e = detection limit is 20. ug/l (ppb)

1 = Sample number prefix: 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

FROM :KOPPERS INDUSTRIES, INC. 286 3681 1900,08-28 13:39 #380 P.05/10

Koppers019917

Figure 2
Benzene Concentration through Time
Monitoring Well MW-15-50
NW Natural - Gasco Facility



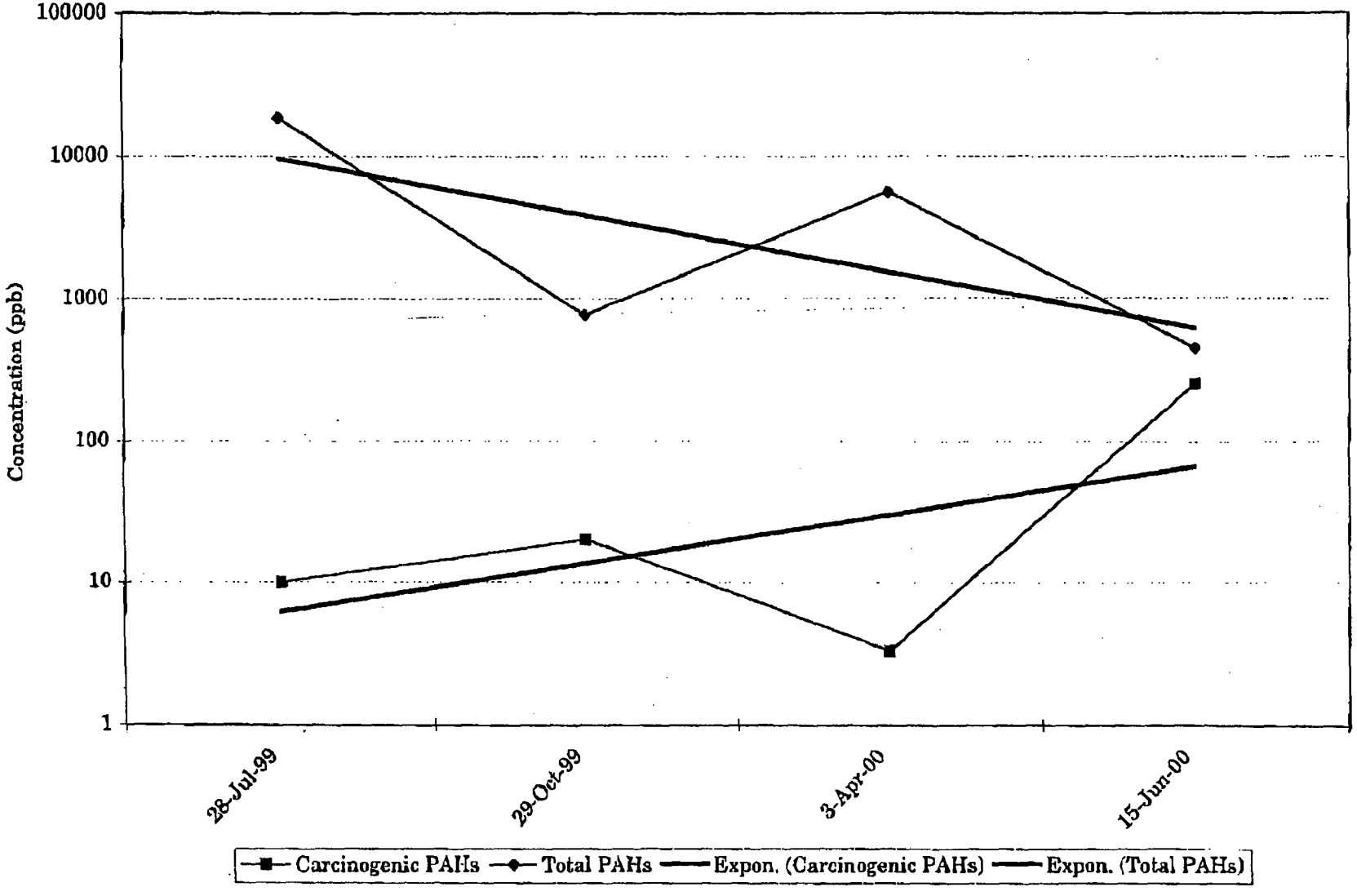
Updated: 8/17/00: RBE
File:2708 GW conc graphs

HAHN AND ASSOCIATES, INC.
Project No. 2708

FROM :KOPPERS INDUSTRIES, INC. 286 3581 1900.08-28 13:40 #380 P.07/10

Koppers019918

Figure 3
Total PAH Concentration through Time
Monitoring Well MW-15-50
NW Natural - Gasco Facility

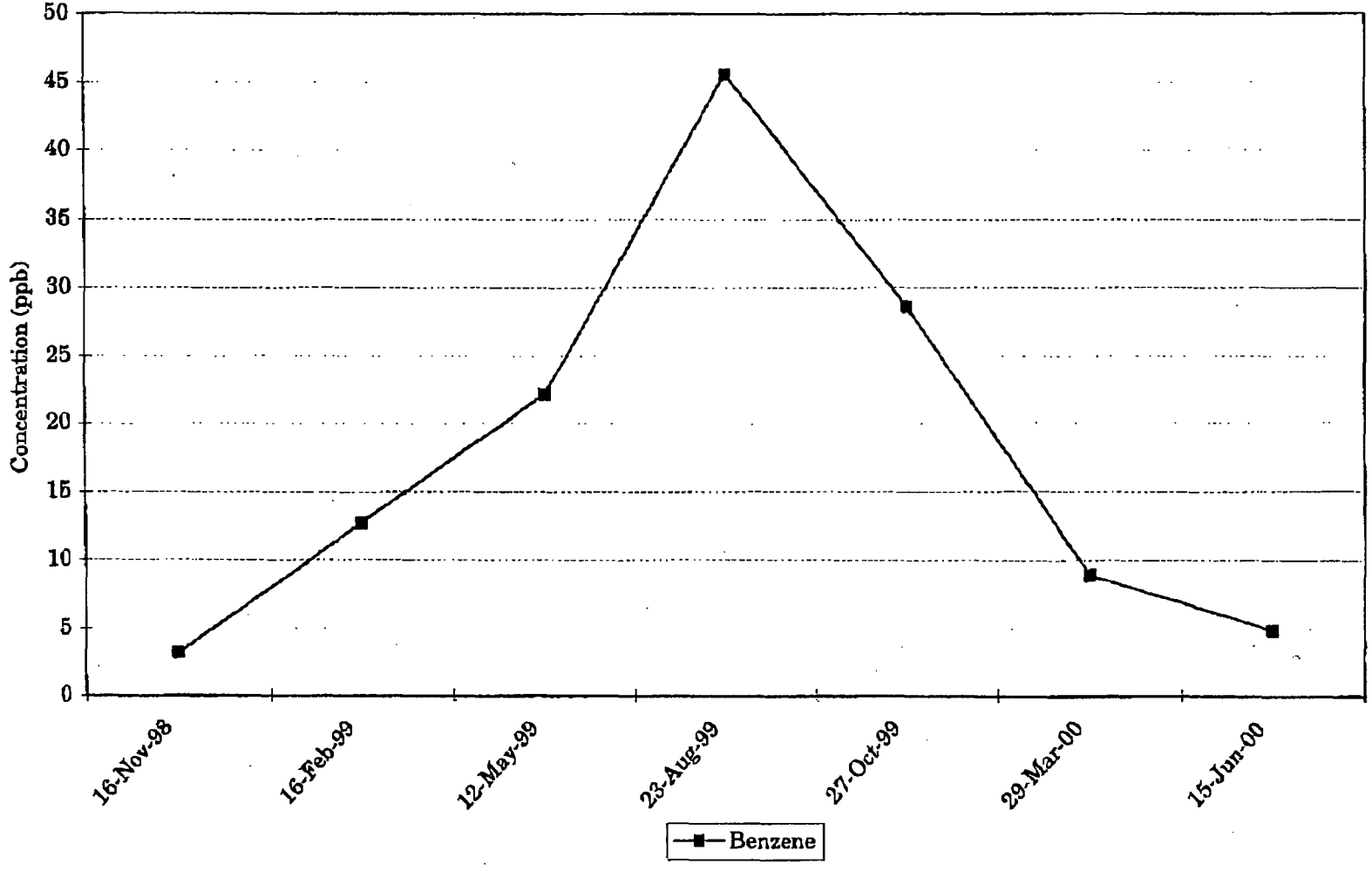


Updated: 8/17/00 RBE
File: 2708 GW conc graphs

HAHN AND ASSOCIATES, INC.
Project No. 2708

FROM :KOPPERS INDUSTRIES, INC. 286 3681 1900.08-28 13:40 #380 P.08/10
Koppers019919

Figure 4
Benzene Concentation through Time
Monitoring Well MW-14-110
NW Natural - Gasco Facility



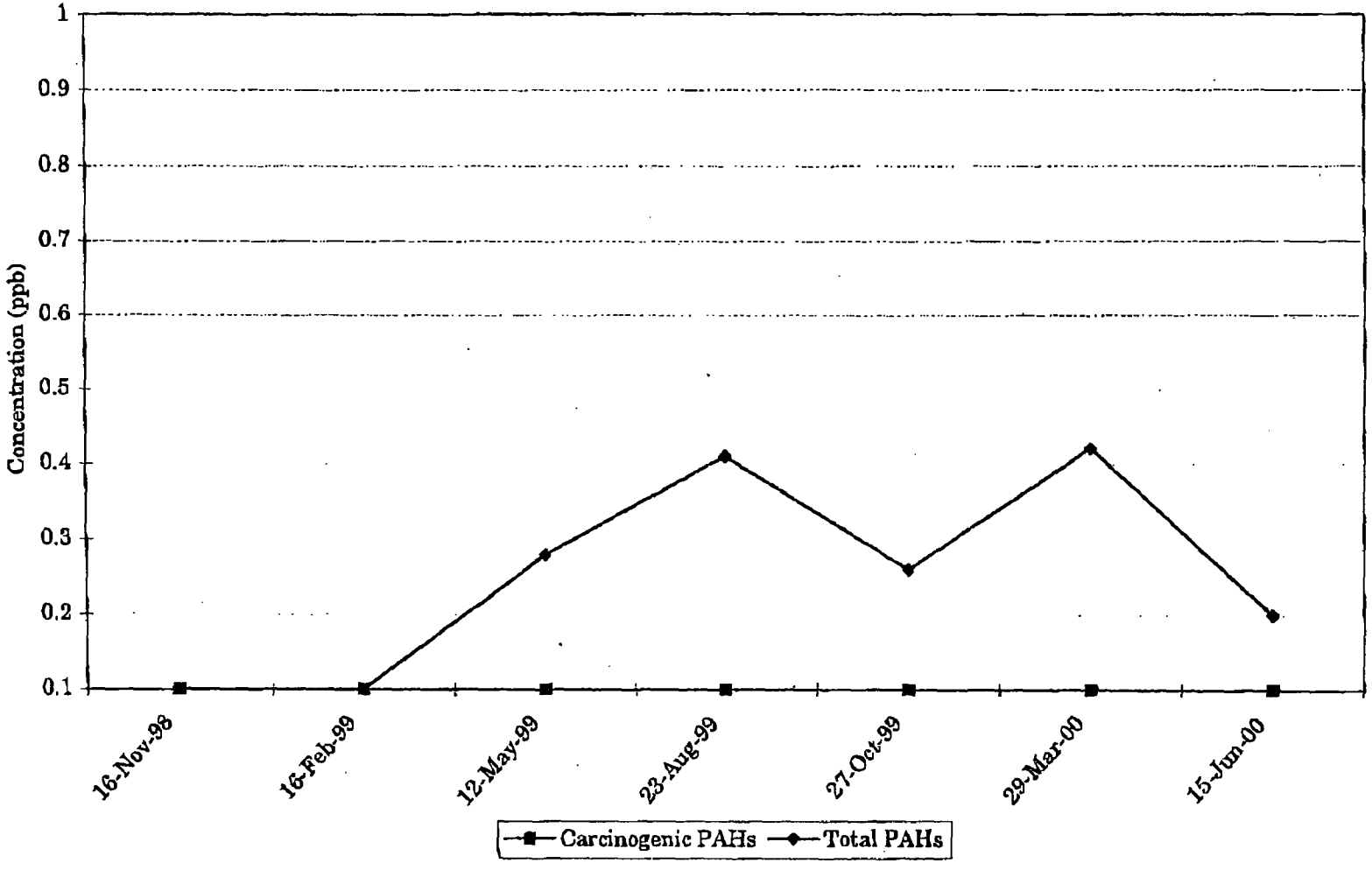
Updated: 8/17/00: RBE
File: 2708 GW conc graphs

HAHN AND ASSOCIATES, INC.
Project No. 2708

FROM :KOPPERS INDUSTRIES, INC. 286 3681 1900.08-28 13:40 #380 P.09/10

Koppers019920

Figure 5
Total PAH Concentration through Time
Monitoring Well MW-14-110
NW Natural - Gasco Facility



Updated: 8/17/00: RBE
File: 2708 GW conc graphs

HAHN AND ASSOCIATES, INC.
Project No. 2708

FROM :KOPPERS INDUSTRIES, INC. 285 3681 1900.08-28 13:40 #380 P.10/10
Koppers019921

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: J. Dietz, T. Self, M. Gilley, B. Messinger DATE: 9/7/00

FROM: Amos TOTAL # OF PAGES: 7

The Attached is self explanatory —

I talked with Bob Wyatt, NWRN last week. He still had not Meet with Erdc/OOEQ, but he had Addressed with Erdc our time table. Bob thought he would get with Erdc in the Next few weeks. I will trace with him Again Next week, if I do not here from Him —

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

File - Portland

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

July 31, 2000

Mr. Amos Kamerer
Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon 97210-3663

HAI Project #2708

SUBJECT: 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. Kamerer:

On behalf of NW Natural, enclosed please find a summary of available groundwater quality data (Tables 1, 2, and 3) as obtained from wells at the Gasco site that monitor groundwater conditions down-gradient from the new coal tar pitch above-ground tank that was constructed at Koppers Industries, Inc. (Figure 1).

As you are aware, monitoring wells MW-15-50, MW-15-66, and MW-14-110 (all down-gradient of the tank foundation pilings) 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 for the new coal tar pitch tank may be completed (pilings were driven in May 1999).

As per the assessment plan, with completion of the June 2000 sampling event, water quality trends at the referenced wells will be evaluated by HAI, with findings summarized and provided to the Oregon Department of Environmental Quality (ODEQ) within the Second Quarter 2000 Remedial Investigation Progress Report for the Gasco site.

If there are any comments or questions, please contact either the undersigned.

Sincerely,

Robert Ede
Sr. Project Manager

c: Mr. Bob Wyatt, NW Natural
Mr. Richard Bach, Stoel Rives, LLP
Mr. Steve Cappellino, Anchor Environmental LLC

---

[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).

FROM :KOPPERS INDUSTRIES, INC. 285 3681 190ª 08-07 15:57 #308 P.03/07

Table 1a - Summary of Analytical Results for Groundwater Samples
June 2000 Sampling Event
Remedial Investigation
Northwest 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 335 Series mg/l (ppm)	EPA Method 901 mg/l (ppm)	Total (Unfiltered) Metals by EPA Method 6010 mg/l (ppm)					
				Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	Carcinogenic PAHs	Total PAHs	Total Cyanide	Amenable Cyanide	Arsenic	Chromium	Copper	Lead	Nickel	Zinc
MW-14-110	000615-MW14-110-102	2708-W064	15-Jun-00	4.88	ND>0.5	ND>0.5	ND>1.5	4.9	ND	0.2	-	ND>0.02	[redacted]	ND>0.005	ND>0.005	ND>0.005	ND>0.005	ND>0.005
MW-15-50	000615-MW15-50-105	2708-W064	15-Jun-00	1,490.	14.3	6.62	42.	1,562.9	268.	475.	-	ND>0.02	ND>0.005	0.008	ND>0.005	ND>0.005	0.0064	0.0359
Duplicate	000615-MW15-50-106	2708-W064	15-Jun-00	1,270.	10.	5.16	28.4	1,313.6	254.	451.	-	ND>0.02	ND>0.005	ND>0.005	ND>0.005	ND>0.005	ND>0.005	0.0388
MW-15-88	000615-MW15-50-104	2708-W064	15-Jun-00	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	12.17	22.	-	ND>0.02	[redacted]	ND>0.005	ND>0.005	ND>0.005	ND>0.005	0.0214
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				5.	1,000.	700.	10,000.	#	#	#	0.2	#	0.05	0.1	1.	0.015	0.1	5.
EPA Region 9 Preliminary Remediation Goals (PRGs) for Tap Water (1999)				0.41	720.	1,300.	1,400.	#	#	#	#	0.73	0.00005	0.11	1.4	#	0.73	11.
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water [2]				40. [3]	424. [3]	1,400. [3]	#	#	0.031 [4]	#	0.0052 [4]	#	0.000017 [4]	0.011 [3]	0.012 [3]	0.0032 [3]	0.1 [4]	0.11 [3]

Notes:
BTEX = benzene, toluene, ethylbenzene, and xylenes
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 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

Koppers019624

FROM :KOPPERS INDUSTRIES, INC. 286 3681 1900.08-07 15:58 #308 P.04/07

Table 1b - Summary of Analytical Results for Groundwater Samples: June 2000
***PAHs by* EPA Method 8270**

Remedial Investigation
Northwest Natural - Gasco Facility
Portland, Oregon

Project No. 2708

PAHs by EPA Method 8270 (SIM)				Analytical Results ug/l (ppb)																	
				Carcinogenic PAHs							Non-carcinogenic PAHs										
Well Number	Sample Number [1]	Chain of Custody Number	Sample Date	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 PAHs
MW-14-110	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	0.2
MW-15-50	000615-MW15-50-105	2708-W064	15-Jun-00	43.6	45.5	38.5	57.1	40.6	8.95	33.5	2.91	0.59	4.11	41.8	59.7	1.66	1.23	25.	60.1	267.65	474.76
Duplicate	000615-MW15-50-106	2708-W064	15-Jun-00	40.	44.1	36.3	53.5	38.3	8.87	32.6	2.96	0.77	4.1	40.2	55.2	1.71	1.23	23.8	57.3	253.87	450.94
MW-15-66	000615-MW15-50-104	2708-W064	15-Jun-00	1.93	1.96	1.61	2.64	1.91	0.57	1.55	0.14	ND [a]	0.39	2.04	3.32	ND [a]	ND [a]	1.07	2.92	12.17	22.05
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				#	#	#	2.	#	#	#	#	#	#	#	#	#	#	#	#	#	#
EPA Region 9 Preliminary Remedial Goals (PRGs) for Tap Water (10/99)				0.092	0.092	0.92	0.0092	9.2	0.0092	0.092	370.	#	1,800.	#	1,500.	240.	6.2	#	180.	#	#
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water [2]				#	#	#	#	#	#	#	520. [3]	#	#	#	54. [4]	#	620. [3]	#	#	0.031 [3]	#

NOTE: ND = not detected above detection limit indicated
PAHs = polynuclear aromatic hydrocarbons
ppb = parts per billion
ug/l = micrograms per liter
Bold and shaded = Detected above Reference Level
# = Reference Level not established
a = detection limit is 0.1 ug/l (ppb)

1 = Sample number prefix: 2708-
2 = Reference Level indicated is the lowest guidance value provided in the Ambient Water Quality Criteria (OAR 340-41)
3 = Reference Level based on Aquatic Fresh Chronic Criteria of AWQC
4 = Reference Level based on Human Fish Consumption Criteria of AWQC

Koppers019925

1900 08-07 15:58 #308 P.05/07
286 3681
FROM :KOPPERS INDUSTRIES, INC.
Koppers019926

Table 3a - Summary of Historical Analytical Results for Groundwater Samples: BTEX, Total PAHs, Total Phenols, and Cyanide (November 1998 to Present)

Remedial Investigation
Northwest 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)	EPA 8270 ug/l (ppb)	
				Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	Carcinogenic PAHs	Total PAHs	Total Cyanide	Amenable Cyanide	Total Phenols	
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	23.1	ND>0.5	1.89	2.4	28.4	ND	0.28	0.03	0.03		
	990823-MW14-110-06	2708-W049	23-Aug-99	48.8	0.75	1.85	2.09	50.3	ND	0.41	0.05	ND>0.02		
	991027-MW14-110-09	2708-W055	27-Oct-99	26.6	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	7.64	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	6.9	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	4.65	ND>0.5	ND>0.5	ND>1.5	4.9	ND	0.2		ND>0.02		
MW-15-50	990728-MW15-50-04	2708-W048	28-Jul-99	95,100.	863.	223.	2,420.	98,606.	ND	18,490.	ND>0.020	ND>0.02		
	991029-MW15-50-25	2708-W057	29-Oct-99	8,910.	134.	58.2	500.	9,603.2	ND	782.	0.16	ND>0.02		
	000403-MW15-50-125	2708-W062	3-Apr-00	44,800.	820.	222.	2,300.	47,842.	3.31	5,611.	0.07	ND>0.02		
	000615-MW15-50-105	2708-W064	15-Jun-00	1,460.	14.3	6.82	42.	1,552.9	266.	475.		ND>0.02		
	000615-MW15-50-106	2708-W064	15-Jun-00	1,270.	10.	5.16	28.4	1,313.6	254.	451.		ND>0.02		
MW-15-88	990728-MW15-88-03	2708-W048	28-Jul-99	3.61	ND>0.5	ND>0.5	ND>1.5	3.6	0.63	3.	ND>0.020	ND>0.02		
	990823-MW15-88-04	2708-W050	23-Aug-99	0.72	ND>0.5	ND>0.5	ND>1.5	0.7						
	991025-MW15-88-07	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-MW15-88-108	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-MW15-50-104	2708-W064	15-Jun-00	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND	12.17	22.		ND>0.02		
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.[4]	#	#	

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 3681 1900,09-07 15:59 #308 P.05/07

Table 3b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270 (November 1998 to Present)

Remedial Investigation
Northwest Natural - Gasco Facility
Portland, Oregon

Project No. 2708

PAHs by EPA Method 8270 (SIM)				Analytical Results ug/l (ppb)																			
				Carcinogenic PAHs							Non-carcinogenic PAHs												
Well Number	Sample Number	Chain of Custody Number	Sample Date	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 PAHs
MW-14-110	981116-MW14-110-06	2708-W037	16-Nov-98	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	ND [c]	ND [c]	ND [1]	ND [1]	ND [1]	ND [c]	ND	ND
	990216-MW14-110-005	2708-W042	16-Feb-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.11	ND [c]	ND [c]	ND [c]	ND [c]	ND [1]	ND [1]	ND [1]	ND [c]	ND	0.1
	990512-MW14-110-09	2708-W045	12-May-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.14	ND [c]	ND [c]	ND [c]	ND [c]	ND [1]	0.14	ND [1]	ND [c]	ND	0.3
	990823-MW14-110-08	2708-W049	23-Aug-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.29	ND [c]	ND [c]	ND [c]	ND [c]	ND [1]	0.12	ND [1]	ND [c]	ND	0.4
	991027-MW14-110-09	2708-W055	27-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.26	ND [c]	ND [c]	ND [c]	ND [c]	ND [1]	ND [1]	ND [1]	ND [c]	ND	0.3
	991027-MW14-110-09	2708-W055	27-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.26	ND [1]	ND [c]	ND [c]	ND [c]	ND [1]	ND [1]	ND [1]	ND [c]	ND	0.3
	000329-MW14-110-109	2708-W060	29-Mar-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.42	ND [1]	ND [1]	ND [c]	ND [c]	ND [1]	ND [1]	ND [1]	ND [c]	ND	0.4
	000329-MW14-110-110	2708-W060	29-Mar-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.42	ND [1]	ND [1]	ND [c]	ND [c]	ND [1]	ND [1]	ND [1]	ND [c]	ND	0.4
	000615-MW14-110-102	2708-W064	15-Jun-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.18	ND [1]	ND [1]	ND [c]	ND [c]	ND [1]	ND [1]	ND [1]	ND [c]	ND	0.2
MW-15-50	980728-MW15-50-04	2708-W048	28-Jul-98	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	50.	8,510.	ND [d]	ND [d]	ND [d]	83.	9,700.	117.	ND [d]	ND	18,460.
	981029-MW15-50-25	2708-W057	29-Oct-98	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	ND [d]	20.	ND [d]	ND [d]	ND [d]	ND [d]	716.	26.	ND [d]	ND	782.
	000406-MW15-50-125	2708-W062	6-Apr-00	0.79	0.54	0.49	0.55	0.73	ND [1]	0.24	22.	41.6	2.91	0.25	6.01	23.6	5,460.	25.9	5.16	3.31	5,611.
	000615-MW15-50-105	2708-W064	15-Jun-00	43.6	45.5	38.5	57.1	40.5	6.85	33.5	2.91	0.56	4.11	41.8	69.7	1.66	1.23	25.	60.1	287.83	475.
	000615-MW15-50-106	2708-W064	15-Jun-00	40.	44.1	38.3	53.5	38.3	6.87	32.6	2.88	0.77	4.1	40.2	65.7	1.71	1.23	23.8	57.3	253.87	451.
MW-15-66	980728-MW15-66-06	2708-W048	28-Jul-98	0.15	0.25	ND [1]	0.16	0.15	ND [1]	0.11	0.11	ND [1]	ND [c]	0.14	0.3	ND [1]	0.57	0.17	0.34	0.83	2.5
	991028-MW15-66-07	2708-W054	28-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	ND
	000321-MW15-66-108	2708-W060	29-Mar-00	0.57	0.59	0.6	0.77	0.67	0.16	0.63	ND [1]	ND [c]	0.11	0.86	0.96	ND [1]	ND [1]	0.33	0.96	3.91	6.9
	000615-MW15-50-104	2708-W064	15-Jun-00	1.93	1.96	1.91	2.64	1.91	0.57	1.55	0.14	ND [c]	0.39	2.04	3.82	ND [1]	ND [1]	1.07	2.92	12.17	22.1
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				#	#	#	2.	#	#	#	#	e	e	e	e	e	e	e	e	e	#
EPA Region 9 Preliminary Remedial Goals (PRGs) for Tap Water (10/99)				0.092	0.092	0.92	0.0092	9.2	0.0092	0.092	370.	e	e	1,800.	e	1,500.	240.	9.2	e	180.	e	#
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water [2]				#	#	#	#	#	#	#	520. [3]	e	e	e	e	54. [4]	e	620. [3]	e	e	0.031	#

Notes:
# = 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 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

Koppers019927

1900 09-07 16:00 #308 P.07/07
FROM :KOPPERS INDUSTRIES, INC. 285 3681

Table 2 - Summary of Analytical Results for Quality Assurance / Quality Control (QA/QC) Samples
June 2000 Sampling Event

Remedial Investigation
Northwest Natural - Gasco Facility
Portland, Oregon

Project No. 2708

QA/QC Sample Type	HAI Sample Number	Chain of Custody Number	Sample Date	Comment	Analytical Results ug/l (ppb)					
					EPA Method 8020					EPA Method 8270
					Benzene	Toluene	Ethyl benzene	Xylenes	Naphthalene	Total PAHs
Trip Blank	2708-000615-MW7-101	2708W064	15-Jun-00	Deionized water in sample containers and transported with samples in cooler.	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND>2	-
Equipment Blank	2708-000615-MW7-103	2708-W064	15-Jun-00	Deionized water through decontaminated pump after sampling MW-14-110 and prior to sampling MW-15-66	ND>0.5	ND>0.5	ND>0.5	ND>1.5	ND>2	ND>0.1

Note:
bgs = below ground surface
BTEX = benzene, toluene, ethylbenzene, and xylenes
EPA = U.S. Environmental Protection Agency
ND = not detected above detection limit indicated
PAHs = polynuclear aromatic hydrocarbons
ppb = parts per billion
ug/l = micrograms/liter

Koppers019928

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

Post-it® Fax Note 7671	Date 6/26/00	# of pages ▶ 3
To J. Dretz, K-1650	From Amos	
Co./Dept. T. Self, K-1800	Co.	
Phone # M. Cilley, Stoel	Phone #	
Fax #	Fax #	

June 23, 2000

Mr. Amos Kamerer
Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon 97210-3663

HAI Project #2708

SUBJECT: Groundwater Quality Data, Above-Ground Storage Tank Support Piling Monitoring, Koppers Lease Area, Northwest Natural-Gasco Facility, 7900 NW St. Helens Road, Portland, Oregon

Dear Mr. Kamerer:

Enclosed please find a summary of available groundwater quality data (Tables 1 and 2) as obtained from wells at the Gasco site that monitor groundwater conditions down-gradient from the new coal tar pitch above-ground tank that was constructed at Koppers Industries, Inc. (Figure 1).

As you are aware, monitoring wells MW-15-50, MW-15-66, and MW-14-110 (all down-gradient of the tank foundation pilings) 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 (pilings were driven in May 1999) for the new coal tar pitch tank may be completed.

As per the assessment plan, water quality trends at the referenced wells will be evaluated after collection of water quality data for one year (to be completed pending receipt of data from the June 15, 2000 sampling event). The next sampling event at the site to include monitoring wells MW-15-50, MW-15-66, and MW-14-110 will occur during September 2000.

If there are any comments or questions, please contact either the undersigned.

Sincerely,

Robert Ede
Sr. Project Manager

c: Mr. Bob Wyatt, NW Natural
Mr. Richard Bach, Stoel Rives, LLP
Mr. Steve Cappellino, Anchor Environmental LLC

[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).

FROM :KOPPERS INDUSTRIES, INC 286 3681 1999-06-25 16:51 #211 P.02/03

Table 1 - Summary of Historical Analytical Results for Groundwater Samples: BTEX, Total PAHs, Total Phenols, and Cyanide (December 1995 to Present)
Koppers Industries Coal Tar Pitch Monitoring Network

Remedial Investigation
Northwest 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)	EPA 8270 ug/l (ppb)
				Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	Carcinogenic PAHs	Total PAHs	Total Cyanide	Amenable Cyanide	Total Phenols
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	0.8	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	45.6	0.75	1.85	2.09	50.3	ND	0.41	0.05	ND>0.02	
	991027-MW14-110-09	2708-W055	27-Oct-99	26.5	0.81	1.45	ND>1.5	30.9	ND	0.28	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-MW14-110-110	2708-W060	29-Mar-00	8.9	0.5	0.83	ND>1.5	10.2	ND	0.42	0.03	ND>0.02	
MW-15-50	990728-MW15-50-04	2708-W048	28-Jul-99	66,100.	863.	223.	2,420.	98,906.	ND	18,460.	ND>0.020	ND>0.02	
	991028-MW15-50-25	2708-W057	29-Oct-99	8,910.	134.	58.2	500.	9,803.2	ND	762.	0.15	ND>0.02	
	000403-MW15-50-125	2708-W062	3-Apr-00	44,800.	620.	222.	2,300.	47,942.	3.51	5,611.	0.07	ND>0.02	
MW-15-66	990728-MW15-66-03	2708-W048	28-Jul-99	3.61	ND>0.5	ND>0.5	ND>1.5	3.8	0.89	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					
	991026-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	1.91	7.	ND>0.02	ND>0.02	
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				0.39	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[4]	#	#

Note: BTEX = benzene, toluene, ethylbenzene, and xylenes; CEQ = 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

Koppers01930

FROM :KOPPERS INDUSTRIES, INC 285 3681 1900 05-26 16:52 #211 P.03/03

Table 2 - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270 (December 1995 to Present)
Koppers Industries Coal Tar Pitch Monitoring Network
Remedial Investigation
Northwest Natural - Gasco Facility
Portland, Oregon

Project No. 2708

PAHs by EPA Method 8270 (SIM)				Analytical Results ug/l (ppb)																			
				Carcinogenic PAHs							Non-carcinogenic PAHs												
Well Number	Sample Number	Chain of Custody Number	Sample Date	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 PAHs
MW-14-110	981116-MW14-110-06	2708-WD37	16-Nov-98	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	ND [c]	ND [1]	ND [1]	ND [1]	ND [c]	ND [1]	ND [1]	ND	ND
	990216-MW14-110-005	2708-WD42	16-Feb-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	0.11	ND [c]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [1]	ND [1]	ND	0.1
	990512-MW14-110-09	2708-WD45	12-May-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	0.14	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.14	ND [1]	ND [1]	ND	0.3
	990823-MW14-110-06	2708-WD49	23-Aug-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	0.29	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	0.12	ND [1]	ND [1]	ND	0.4
	991027-MW14-110-09	2708-WD56	27-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	0.26	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	ND [c]	ND [1]	ND [1]	ND	0.3
	991027-MW14-110-09	2708-WD55	27-Oct-99	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	ND [c]	ND [c]	0.26	ND [1]	ND [1]	ND [1]	ND [c]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.3
	000329-MW14-110-110	2708-WD60	29-Mar-00	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	0.42	ND [c]	ND [c]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND	0.4
MW-15-50	990728-MW15-50-04	2708-WD48	28-Jul-99	ND [1]	ND [1]	ND [1]	ND [d]	ND [d]	ND [d]	ND [d]	50.	8,510.	ND [d]	ND [d]	ND [d]	83.	9,700.	117.	ND [d]	ND	18,450.
	991029-MW15-50-25	2708-WD57	29-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	ND [c]	20.	ND [c]	ND [c]	ND [1]	ND [1]	716.	28.	ND [c]	ND	762.
	000403-MW15-50-125	2708-WD52	3-Apr-00	0.79	0.51	0.49	0.55	0.73	ND [c]	0.24	22.	41.6	2.91	0.25	6.01	23.8	5,460.	25.9	5.15	3.31	5,611.
MW-15-66	990728-MW15-66-03	2708-WD48	28-Jul-99	0.16	0.26	ND [1]	0.15	0.15	ND [c]	0.11	0.11	ND [c]	ND [1]	0.14	0.3	ND [c]	0.57	0.17	0.34	0.83	2.5
	991026-MW15-66-07	2708-WD54	26-Oct-99	ND [1]	ND [1]	ND [1]	ND [1]	ND [1]	ND [c]	ND [c]	ND [1]	ND [c]	ND [c]	ND [1]	ND [1]	ND [c]	ND [c]	ND [1]	ND [1]	ND	ND
	000329-MW15-66-108	2708-WD60	29-Mar-00	0.57	0.59	0.5	0.77	0.67	0.18	0.53	ND [1]	ND [c]	0.11	0.66	0.86	ND [c]	ND [c]	0.33	0.56	3.91	6.9
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				#	#	#	0.2	#	#	#	#	#	#	#	#	#	#	#	#	#	#
EPA Region 9 Preliminary Remedial Goals (PRGs) for Tap Water				0.09	0.09	0.92	0.01	9.2	0.01	0.09	365	#	1,825	#	1,460	243	243	#	182	#	#
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water [1]				#	#	#	#	#	#	#	520 [3]	#	#	#	54 [4]	#	620 [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 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

Koppers019931

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL MANAGEMENT

Post-it® Fax Note 7671	Date 3/24/00	# of pages ▶ 4
To J. Dietz, K-1650	From Amos	
Co./Dept. [illegible]	Co.	
Phone # M. Cilley, Stoel Rives	Phone #	
Fax #	Fax # For your files	

March 23, 2000

Mr. Amos Kamerer
Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, Oregon 97210-3663

HAI Project #2708

SUBJECT: Groundwater Quality Data, Above-Ground Storage Tank Support Piling Monitoring, Koppers Lease Area, Northwest Natural-Gasco Facility, 7900 NW St. Helens Road, Portland, Oregon

Dear Mr. Kamerer:

Enclosed please find a summary of available groundwater quality data (Tables 1 and 2) as obtained from wells at the Gasco site that monitor groundwater conditions down-gradient from the new coal tar pitch above-ground tank that was constructed at Koppers (Figure 1).

As you are aware, monitoring wells MW-15-50, MW-15-66, and MW-14-110 (all down-gradient of the tank foundation pilings) 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 (pilings were driven in May 1999) for the new coal tar pitch tank may be completed.

As per the referenced plan, water quality trends at the referenced wells will be evaluated after completing data collection activities for the period of one year (i.e., subsequent to the August 2000 event). The next sampling event at the site to include monitoring wells MW-15-50, MW-15-66, and MW-14-110 is scheduled to occur during the week of March 27, 2000.

If there are any comments or questions, please contact either the undersigned.

Sincerely,

Robert Ede
Sr. Project Manager

RECEIVED
MAR 27 2000

RECEIVED
MAR 24 2000
KOPPERS INDS, INC.
PORTLAND OR

c: Ms. Sandra Hart, Northwest Natural
Mr. Bob Wyatt, Northwest Natural
Mr. Richard Bach, Stoel Rives, LLP
Mr. Tom Schadt, Anchor Environmental LLC

[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).

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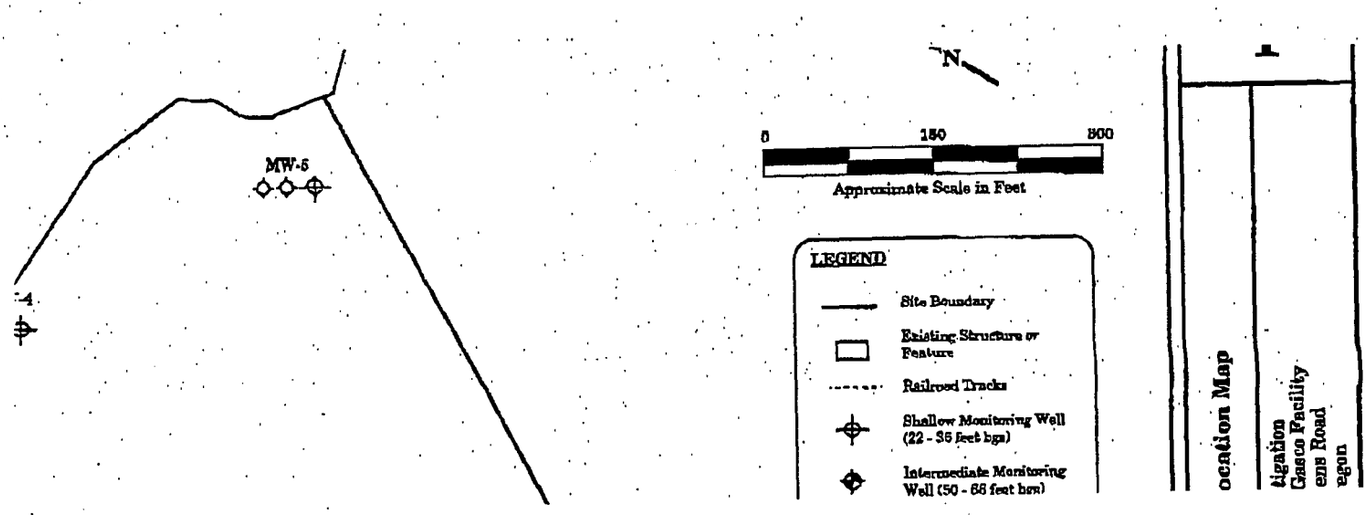

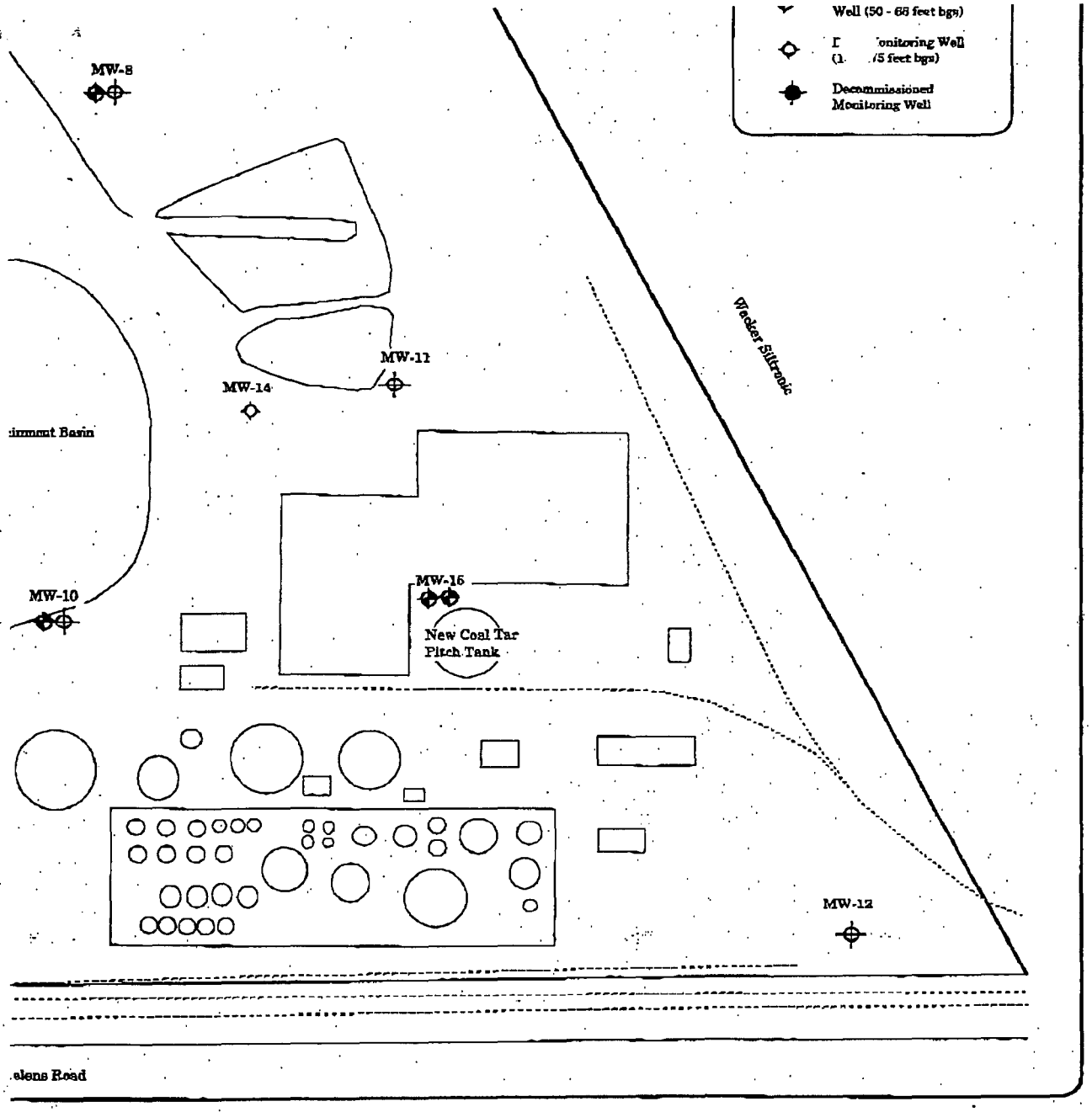

Monitoring Well Lo

Remedial Investi
Northwest Natural - G
7900 NW St. Hele
Portland, Ore

HAHN & ASSOCIATES, INC.

ENVIRONMENTAL MANAGEMENT
434 NW SIXTH AVENUE, SUITE 203
PORTLAND, OREGON 97209
503/796-0717

January 2000

Project No. 2708

Koppers019933

FROM :KOPPERS INDUSTRIES, INC. 285 3681 1998,03-24 13:54 #908 P.02/03

Table 1 - Summary of Historical Analytical Results for Groundwater Samples: BTEX, Total PAHs, Total Phenols, and Cyanide (December 1995 to Present)
Koppers Coal Tar Pitch Monitoring Network
Remedial Investigation
Northwest 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)	EPA 9270 ug/l (ppb)	
				Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	Carcinogenic PAHs	Total PAHs	Total Cyanide	Amenable Cyanide	Total Phenols	
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	0.8	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	45.8	0.76	1.85	2.09	50.3	ND	0.41	0.05	ND>0.02		
	991027-MW14-110-09	2708-W056	27-Oct-99	28.6	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		
MW-15-50	990728-MW15-50-04	2708-W048	28-Jul-99	96,100.	863.	223.	2,420.	98,606.	ND	16,460.	ND>0.020	ND>0.02		
	991029-MW15-50-25	2708-W057	29-Oct-99	8,910.	134.	59.2	500.	8,903.2	ND	762.	0.15	ND>0.02		
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						
	991026-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		
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				0.39	720.	1,300.	1,400.	#	#	#	#	0.73	#	
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water[2]				40.[3]	424.[3]	1,400.[4]	#	#	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

Koppers019934

FROM :KOPPERS INDUSTRIES, INC. 285 3681 1900 03-24 13:54 #908 P.03/03

Table 2 - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270 (December 1995 to Present)
Koppers Coal Tar Pitch Monitoring Network

Remedial Investigation
Northwest Natural - Gasco Facility
Portland, Oregon

Project No. 2708

PAHs by EPA Method 8270 (SIM)				Analytical Results ug/l (ppb)																		
				Carcinogenic PAHs							Non-carcinogenic PAHs											
Well Number	Sample Number	Chain of Custody Number	Sample Date	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 PAHs
MW-14-110	981116-MW14-110-06	2708-W037	16-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
	990216-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-MW14-110-06	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-MW14-110-09	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-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
MW-15-50	990729-MW15-50-04	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]	83.	9,700.	117.	ND [d]	ND	18,460.
	991026-MW15-50-25	2708-W057	29-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.	26.	ND [a]	ND	762.
MW-15-66	990729-MW15-66-03	2708-W048	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	0.83	2.5
	991026-MW15-66-07	2708-W054	26-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 [a]	ND	ND
EPA Maximum Contaminant Levels (MCLs) for Drinking Water				#	#	#	2	#	#	#	#	#	#	#	#	#	#	#	#	#	#
EPA Region 9 Preliminary Remedial Goals (PRGs) for Tap Water				0.09	0.09	0.92	0.01	9.2	0.01	0.09	365 [c]	#	1,825 [c]	#	1,460 [c]	243 [c]	243 [c]	#	182 [c]	#	#
DEQ Ambient Water Quality Criteria (AWQC) for Surface Water				#	#	#	#	#	#	#	620 [3]	#	#	#	54 [3]	#	620 [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 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

Kopper0019935

FAX TRANSMITTAL

KOPPERS INDUSTRIES, INC.
7540 NW SAINT HELENS RD.
PORTLAND, OR 97210-3663

TELEPHONE: 503-286-3681
FAX: 503-285-2831

TO: J. Dietz, K-1650
T. Self, K-1800
B. Meisinger, HTC
FROM: Amos Kamerer

DATE:
10/05/99

TOTAL # OF PAGES: 3

SUBJECT: ODEQ Wells

The attached is self-explanatory, with the ODEQ flexing their mussels! This pretty much cover's what I had advised earlier about the first sample results. I talked to Rob Ede at Hahn and Assoc., Rob said that he would be responding to Eric with the requested plan, in the next couple of weeks. Rob feels that it will take at least a year, 4 more samples, before any meaningful data will be developed, as to what, if anything, has happened as a result of our new piles.

I will forward Rob's response when received.

Amos

IF THIS TRANSMITTAL IS RECEIVED IN ERROR, PLEASE ADVISE.

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

October 1, 1999

Ms. Sandra Hart
Senior Engineer
Northwest Natural
220 N.W. Second Avenue
Portland, OR 97209

RE: Preliminary Results of Groundwater Monitoring Downgradient of Tank Location, Koppers Lease Area – Former GASCO site.

Dear Sandi:

As you are aware, 208 support pilings were driven to bedrock as part of the installation of a pencil pitch storage tank at the Koppers Lease Area at the former GASCO site. The pilings penetrated an area of tar contamination present in the form of a dense non-aqueous phase liquid (DNAPL). Following installation of the support pilings, two monitoring wells were installed downgradient of the pencil pitch storage tank. One monitoring well, MW-15-50, is screened immediately below a silt unit that has, at previously investigated locations in the plant site area, acted as a barrier to contaminant migration. The second monitoring well, MW-15-66, is screened just above the basalt/alluvium interface. The purpose of the monitoring wells is to determine whether the tank installation could exacerbate existing contamination at the former GASCO facility.

Monitoring wells MW-15-50 and MW-15-66 were sampled in July 1999. MW-15-66 was resampled as part of quarterly groundwater monitoring at the GASCO facility in August 1999. Preliminary results obtained from MW-15-50 reveal high concentrations of benzene (95.1 mg/l), naphthalene (8.5 mg/l) and acenaphthylene (9.7 mg/l) in groundwater. These concentrations indicate that free phase product is present in the vicinity of MW-15-50. Groundwater concentrations detected in groundwater collected from MW-15-66 are only slightly above detection limits.

A preliminary analysis of the groundwater data suggests that free product has penetrated the silt unit in the vicinity of the pencil pitch storage tank location. Based on the low concentrations of contamination detected in MW-15-66, it appears that the contamination detected in MW-15-50 was not present prior to the installation of the support pilings. However, it is not clear at this time whether the migration of contamination through the silt units occurred as a result of contaminant dragdown during pile installation or indicates that the support pilings have created a conduit that will allow continued migration of free phase product through the silt unit and into the alluvial zone.

DEQ-1

Until it can be demonstrated existing conditions have not been exacerbated due to the installation of support pilings, DEQ will not approve the installation of any subsequent storage tanks. DEQ requests that Northwest Natural develop a plan to assess the source of the high concentrations of benzene, naphthalene and acenaphthylene detected in monitoring well MW-15-50. The plan should present an approach to determine whether the observed contamination is associated with the installation of the support pilings and whether a conduit for ongoing migration of free phase product through the silt unit and into the alluvial zone has been created.

If you have any questions in this matter, please contact me at 229-5648.

Sincerely,

Eric L. Blischke
Project Manager
Waste Management and Cleanup Division

cc: Mike Rosen, NWR/DEQ
Rod Struck, NWR/DEQ
Amos Kamerer, Koppers Industries

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OCT 05 1999
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PORTLAND OR

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If you have any questions in this matter, please contact me at 229-5648.

Sincerely,

Eric L. Blischke
Project Manager
Waste Management and Cleanup Division

cc: Mike Rosen, NWR/DEQ
Rod Struck, NWR/DEQ
Amos Kamerer, Koppers Industries

Post-it® Fax Note 7671	Date 11/18/99	# of pages ▶ 2
To Traci Sclp	From Amos	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

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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: J. Dietz, T. Self, B. Meisinger DATE: 6/24/99

FROM: Ames TOTAL # OF PAGES: 6

The Attached F. Y. I.

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL MANAGEMENT

RECEIVED
JUN 23 1999
KOPPERS INDS, INC.
PORTLAND OR

June 21, 1999

Mr. Eric Blischke
Oregon Department of Environmental Quality
Voluntary Cleanup and Site Assessment Section
811 SW 6th Avenue
Portland, Oregon 97204

HAI Project No. 2708

SUBJECT: Proposed Monitoring Well Installation Activities, Koppers Lease Area, Northwest Natural-Gasco Facility, 7900 NW St. Helens Road, Portland, Oregon

Dear Mr. Blischke:

As documented in correspondence dated May 24, 1999 (Blischke to Hart), the Oregon Department of Environmental Quality (DEQ) has expressed concerns regarding the location of groundwater monitoring wells as originally proposed for installation down-gradient of the new Koppers coal tar pitch tank supports at the Northwest Natural – Gasco facility. These wells were initially proposed for installation in a work plan submitted to the DEQ dated May 13, 1999 (Ede to Blischke), with the proposed installation of a bedrock and an alluvial unit well located approximately 100 feet down-gradient of the tank supports, immediately north of the Koppers Pencil Pitch Storage Building.

The DEQ has requested that the proposed location of the wells be revised such that they would instead be installed as close as possible to the tank foundation supports (on the down-gradient side). As discussed during a site meeting with the DEQ on June 9, 1999, it has been concluded that installation of a well within the adjacent pencil pitch storage building (to the north-northeast) would not be feasible due to drill rig mast height restrictions, and that installation immediately east would not be ideal due to the possibility of construction within that area over the next several of years. Based on the preceding, the DEQ agreed that, assuming drill rig access is possible, then installation of the wells immediately to the north of the tank foundation supports would adequately satisfy DEQ's objectives for these wells. Follow-up evaluation indicates that by removing overhead piping and by placing a granular fill foundation suitable for the drill rig, access, although limited, would be sufficient for the installation of the proposed wells at the DEQ-desired location. The proposed wells, tentatively designated as MW-15-50 and MW-15-65, based on their anticipated depths, are depicted on Figures 1 and 2. The final well designations will be modified based upon their actual depths.

Additionally, as requested by DEQ, instead of the installation of one alluvial zone well and one bedrock well as originally proposed, the scope has been revised such that two alluvial unit wells would be installed. Specifically, one well would be installed at the top of the alluvial zone (immediately below the silt unit), while the second well would be installed at the base of the alluvial zone (immediately above the bedrock surface). Both wells would be constructed and double-cased through the silt unit as per the May 13, 1999 Work Plan. As per DEQ's request, the shallow well will be constructed with a 10-foot section of screen, while the deep well will be installed with a 5-foot section of screen. Based on available data for the area (geotechnical boring G-2 and tank foundation support data), it is estimated that the shallow well will be constructed to a depth of approximately 50 feet below ground surface (bgs), while the deep well will be constructed to a depth of approximately 65 feet bgs.

All borehole drilling and well installation work will be performed with air rotary drilling methodology as indicated in the May 13, 1999 Work Plan. Continuous soil core sampling will be conducted with a hydraulic push probe sampling device through the silt unit in order to verify appropriate surface casing placement. Below the silt unit, soil samples will be collected at approximate 5-foot intervals via split spoon sampling methodology. Soil samples will be collected for lithologic descriptive purposes only unless field screening results indicate the presence of contamination at locations that do not correlate with the site conceptual model.

With the approval of DEQ, drilling will be scheduled to commence the week of June 28, 1999. Subsequent to that week, access to the proposed well locations cannot be guaranteed.

If there are any comments or questions, please contact either the undersigned.

Sincerely,

Robert Ede
Project Manager

c: Ms. Sandra Hart, Northwest Natural
✓Mr. Amos Kamerer, Koppers Industries
Mr. Richard Bach, Stoel Rives, LLP
Mr. Frank Selker, Decision Focus, LLC

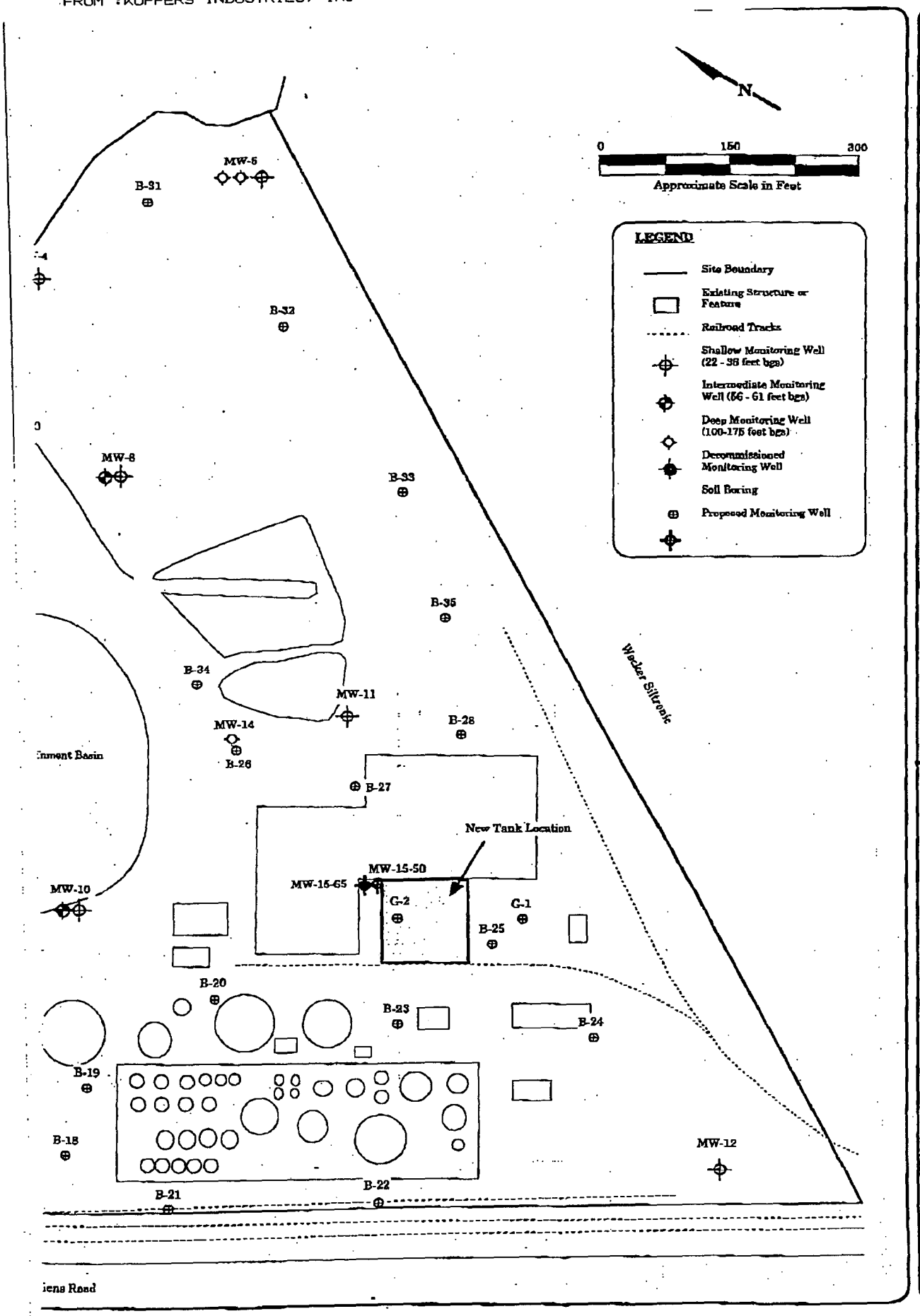


Figure 1

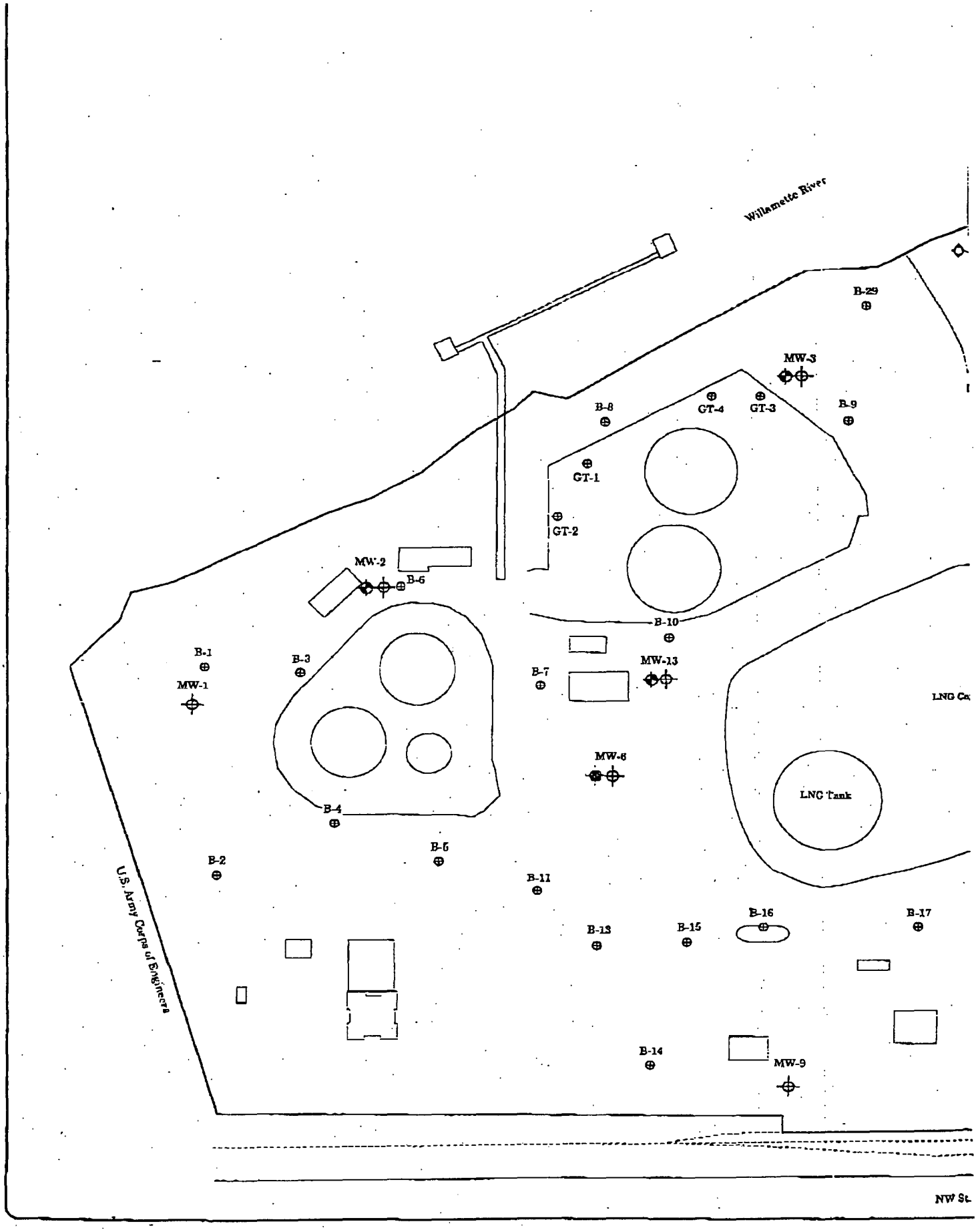
Proposed Kopper's Area Well Location Map

Remedial Investigation
Northwest Natural - Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

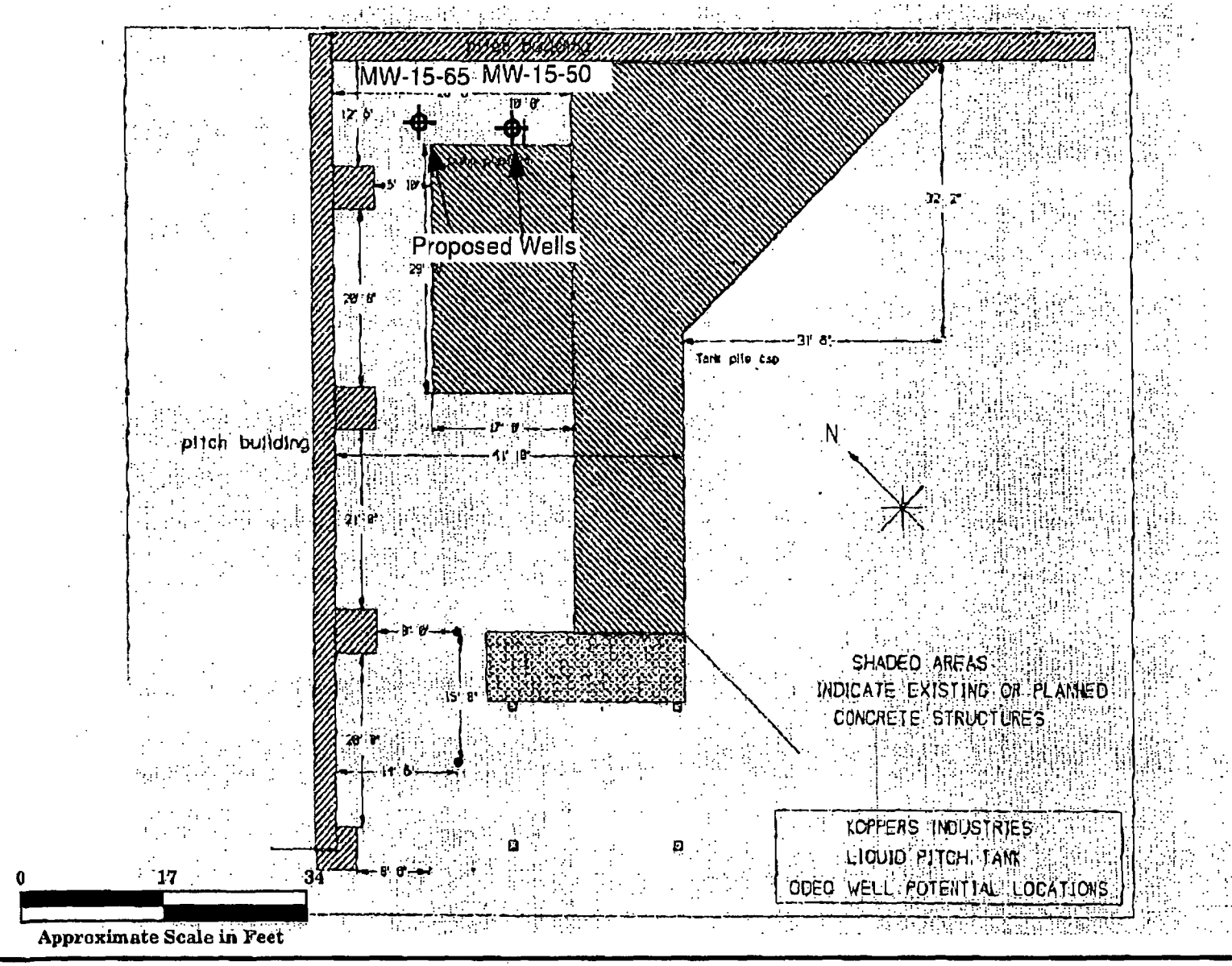
HAHN & ASSOCIATES, INC.
ENVIRONMENTAL MANAGEMENT
434 NW SIXTH AVENUE SUITE 203
PORTLAND, OREGON 97209
503/796-0717

May 1999

Project No. 2708


Willamette River
B-29
MW-3
B-8
GT-4
GT-3
B-9
GT-1
GT-2
MW-2
B-6
B-10
B-1
MW-1
B-3
B-7
MW-13
LNG Ca
MW-8
LNG Tank
B-4
B-5
B-2
B-11
B-16
B-17
B-13
B-15
U.S. Army Corps of Engineers
B-14
MW-9
NW St

FROM :KOPPERS INDUSTRIES, INC 286 3681 1999-06-24 08:07 #608 P.05/05



Project No. 2708	**HAHN AND ASSOCIATES** INCORPORATED	**Proposed Well Locations and Surrounding Features: Koppers Pitch Tank**	FIGURE 2
June 1999	ENVIRONMENTAL MANAGEMENT 434 NW SIXTH AVENUE, SUITE 203 PORTLAND, OREGON 97209 (503) 796-0717	Remedial Investigation Northwest Natural - Gasco Facility 7900 NW St. Helens Road Portland, Oregon	

Koppers019945

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

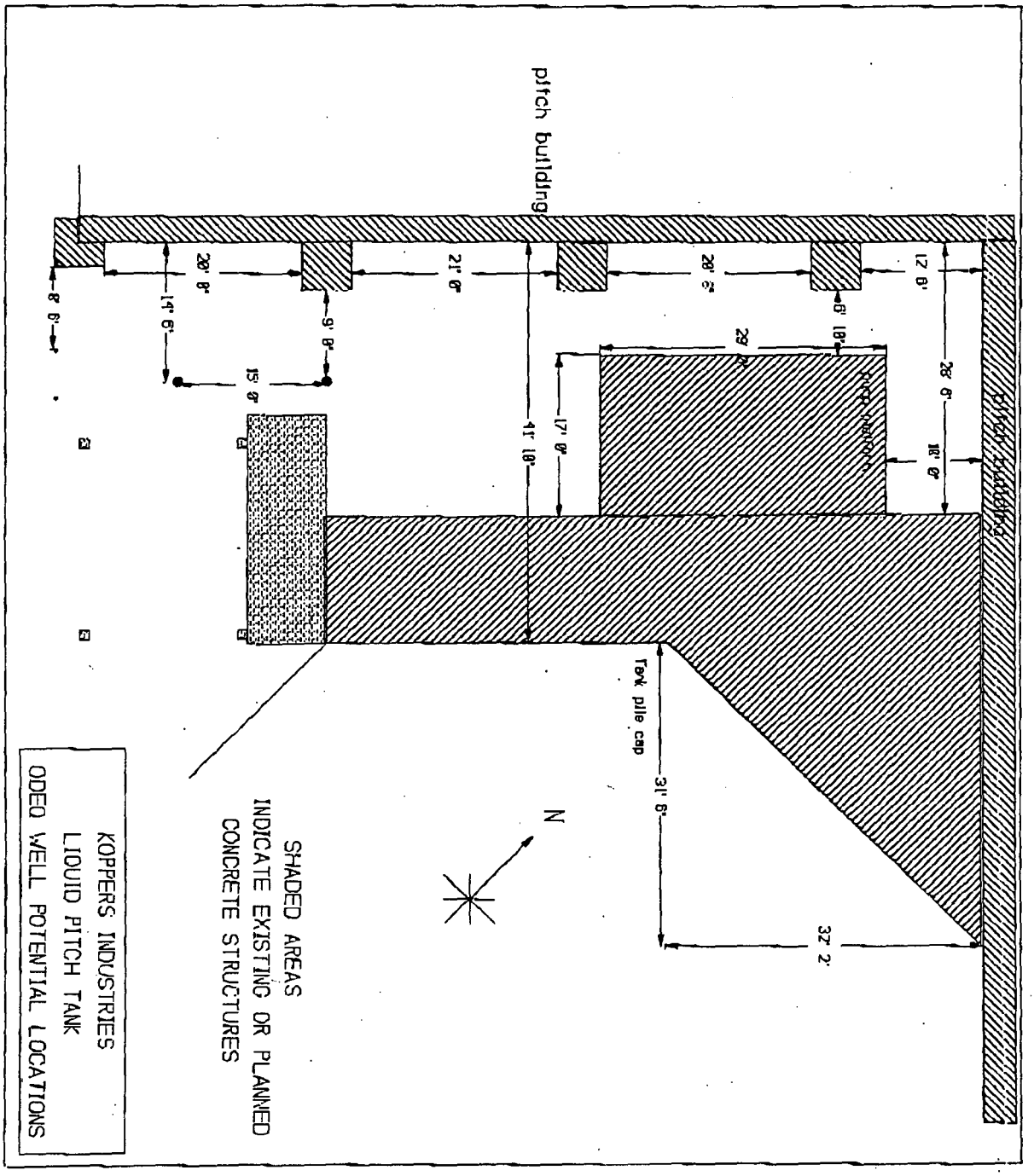
TO: Traci Self, K-1800 DATE: 6/15/99

FROM: Ames TOTAL # OF PAGES: 2

Here's the layout of the area that the DEQ is looking at for the new wells. Call if any questions.

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

Koppers01994?



TRD – Glenna Mullen
Hahn + Assoc. – Rob.

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, B. Meisinger, T. Self DATE: 12/30/98

FROM: Amos TOTAL # OF PAGES: 2

The Attached for your files —
What this means is, No landfill, which they had told us before, And if we find Anything we will have to deal with it on A case by case, basis. Hot spots

Full Scale PAH's	Bridge shore pier pad, should be only
BETX	"potential" problem area.

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

KOPPERS INDUSTRIES

Tele # 360 - 905 - 1380
Fax # [redacted] 295 - 0823 (Portland #)

FAX TRANSMITTAL

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

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

TO: Nichole Robinson, J. H. Kelly DATE: 1/4/99

FROM: Amos Kamerer TOTAL # OF PAGES: 2

The attached per our conversation

IF THIS TRANSMITTAL IS IN ERROR. PLEASE CALL 503-286-3681 FAX # 503-285-2831

NW Natural
220 NW 2ND AVENUE
PORTLAND, OR 97209
TEL 503.226.4211
www.nwnatural.com

Michael J. Hayward
Senior Environmental Specialist
Telephone: (503)226-4211 ext 4327
Facsimile: (503)273-4815
Email: mjh@nwnatural.com

December 23, 1998

Mr. Amos Kamerer
Koppers Industries, Inc.
7540 NW St. Helens Road
Portland, OR 97210

RE: Disposal of Excavated Soils at Gasco Site

Dear Mr. Kamerer:

This is in response to your recent inquiry with respect to our disposal practices for soils generated by excavations at NW Natural's Gasco Facility.

NW Natural has taken the position that disposal decisions are to be made in accordance with applicable law, and are to be designed to avoid long-term liability. Accordingly, it is our practice that we do not landfill any excavated soils that have measurable levels of contamination.

The first step in our disposal decision-making process is a RCRA standard hazardous/non-hazardous determination. Soils that are characterized as hazardous are then treated by a licensed treatment facility, by either thermal desorbtion or chemical oxidation. Non-hazardous soils are normally sent to a local facility for thermal treatment to reduce contaminants to below detectable levels.

I trust the foregoing answers your questions. If you need any additional information, or wish to discuss this in more detail, please feel free to call me at (503) 226-4211 ext. 4327.

Sincerely,

Michael J. Hayward

cc: Sandi Hart, NWN

RECEIVED
DEC 2 8 1998
KOPPERS INDS, INC.
PORTLAND OR

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238

KOPPERS INDUSTRIES

Purchase Order

Date: April 8, 1997
Page: 1

Purchase Order # 3000-7-9021
Contact: RICHARD J. COOK, 412-826-3906

To: Geo Engineers
7504 SW Bridgeport Road
Portland, OR 97224

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

Koppers requests that Seller furnish the material and/or services listed below. Acceptance of this purchase order is expressly limited to the terms and conditions on the face and on the reverse side hereof.

The purchase order number must be shown on all correspondence, shipping papers, invoices, etc.

QUANTITY	DESCRIPTION	PRICE
	REQUISITION: J. DIETZ **SOILS INVESTIGATION** **FORM INS** **EXHIBIT A - OSHA COMPLIANCE** Seller is to provide necessary personnel and insurance to perform the soils investigation tasks as outlined in sellers proposal dated 4/03/97, except for Item 5, at Koppers Industries' facility in Portland, OR. This order is issued on a time and material not-to-exceed basis. Contractor is required to have time sheets signed daily by proper Koppers Industries, Inc. supervisor. Time sheets are to indicate number of vendor's employees used, hours secured and area in which labor was used. Contractor is to include with each invoice a copy of said daily time sheets which will be used as backup for invoices. If, for any reason, the daily time sheets are not approved by proper Koppers Industries, Inc. supervisor, payment cannot be rendered. **PRIOR TO MAKING THE FIRST DELIVERY OR PERFORMING ANY SERVICE AGAINST THIS ORDER, SELLER IS REQUIRED TO SUBMIT ONE COPY OF AN INSURANCE CERTIFICATE IN ACCORDANCE WITH THE ATTACHED FORM INS (HIS AND ALL OF HIS SUBCONTRACTORS) CLEARLY SHOWING KOPPERS INDUSTRIES AS ADDITIONAL INSURED TO KOPPERS INDUSTRIES PLANT, ATTENTION PLANT MANAGER AND TO KOPPERS INDUSTRIES, INC., 1005 WILLIAM PITT WAY, PITTSBURGH, PA 15238-1362, ATTENTION THE UNDERSIGNED. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL CAUSE A DELAY IN RELEASES AND/OR CAUSE THIS ORDER TO BE TERMINATED.** CONTRACTOR AND/OR SELLER AGREES TO BE GOVERNED AND ABIDE BY THE RULES AND REGULATIONS AS SET FORTH IN PAMPHLET ENTITLED "SAFETY REGULATIONS FOR CONTRACTOR WORKING IN KOPPERS INDUSTRIES' PLANTS." A COPY OF THIS PAMPHLET IS TO BE OBTAINED FROM THE LOCAL PLANT MANAGER. Send original and two copies of all invoices to: KOPPERS INDUSTRIES, INC. 1005 WILLIAM PITT WAY PITTSBURGH PA 15238 ATTENTION: J. DIETZ	NOT TO EXCEED $11,400.00

RECEIVED
APR 14 1997
KOPPERS INDS. INC.
PORTLAND OR
COPY

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238

KOPPERS INDUSTRIES

Purchase Order

Date: April 8, 1997
Page: 2

Purchase Order # 3000-7-9021

Contact: RICHARD J. COOK, 412-826-3906

To: Geo Engineers
7504 SW Bridgeport Road
Portland, OR 97224

Ship To: Koppers Industries, Inc.
7540 N.W. Street, St. Helens Rd.
Portland, OR 97210-3663

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QUANTITY	DESCRIPTION	PRICE
	Send one copy of all invoices to: KOPPERS INDUSTRIES, INC. PURCHASING DEPARTMENT 1005 WILLIAM PITT WAY PITTSBURGH, PA 15238 ATTENTION: RICHARD J. COOK **PRICE:** Based on seller's proposal dated 4/03/97 and time and materials rates therein **FOB:** Jobsite **SHIP:** As required **TERMS:** Net 30 days ALL FEDERAL EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION REQUIREMENTS IN REGARD TO RACE, SEX, RELIGION, NATIONAL ORIGIN, HANDICAP AND VIETNAM VETERAN OR DISABLED VETERAN STATUS, AS FOUND IN 41 CFR 60-1.4, 41 CFR 60-250.3, AND 41 CFR 741.3, ARE HEREIN INCORPORATED BY REFERENCE. KOPPERS INDUSTRIES IS ENTITLED TO ALL REMEDIES PURSUANT TO THE UNIFORM COMMERCIAL CODE. Confirming verbal order to Mr. Thielen, 4/04/97 - **DO NOT DUPLICATE** **PLEASE ACKNOWLEDGE YOUR ACCEPTANCE OF THIS ORDER BY SIGNING AND RETURNING THE ATTACHED COPY.** ACCEPTED BY: _____ _____ KOPPERS INDUSTRIES, INC. SELLER'S AUTHORIZED SIGNATURE AUTHORIZED SIGNATURE RICHARD J. COOK/sad TITLE _____ CC: J. Dietz - UPARC TOTAL NOT TO EXCEED:	$11,400.00

Koppers Industries, Inc.
1005 William Pitt Way
Pittsburgh, PA 15238

KOPPERS INDUSTRIES

Purchase Order

Date: April 8, 1997
Page: 2

Purchase Order # 3000-7-9021

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7504 SW Bridgeport Road
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Ship To: Koppers Industries, Inc.
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BEAZER QUESTIONAIRE

NORTHWEST TERMINAL
PORTLAND, OREGON

SPCC Upgrades :

Total revision June 1991.
Total revision December 1994.
Revised January 1995.
Revised January 1996.
Revised March 1997.
Total revision May 1998.
Total revision February 2000.

REPORTABLE SPILLS :

We have had only one reportable spill since 1988. On January 28, 1998 while making a transfer of liquid pitch from the melter tank T-65 to the truck shipping tank T-68 we had a mechanical failure of the float gauging devise on shipping tank T-68, which resulted in the over filling of this tank. A calculated quantity of 6.985 tons was spilled from the tank, with about 95 % of it contained on paved black top. We calculated that 100 % of the pitch was recovered, 99 % was recycled, and 1 % was disposed of as a non – hazardous material.

New procedures were written for this transfer operation, to eliminate a reoccurrence, Plus, we have since added radar level indicators to both of these tanks, for better control of this transfer operation.

CONTAINMENT / DIVERSIONARY STRUCTURES ADDED SINCE 1888:

◊ Asphalt Black toping to the following area's :

Road way behind the office and over the inside railroad tracks.
Around the service building and up to the doorway of the new pencil pitch storage building.
Around the back of the old pencil pitch storage building, including the truck wash pit and the turn around for the liquid pitch trucks.
All around tank T-200, and under and behind the rail car loading station.
The old creosote truck loading area, and the creosote railcar unloading area.

- Containment around tanks or pump location's:

  Pump containment in the tank farm for T-102 Fume Recovery tank, tank T-67, and the central tank farm transfer pump. Containment around the hot oil heater unit's E-170 and E-270, hot oil pumps and liquid pitch pumps adjacent to and around heater E-170, hot oil pumps around heater E-270, liquid pitch tank T-200 and liquid pitch pump's P-220 and P-225, and around the hot oil pumps behind tank T-200.

- The following is a list of capital projects that have been completed since 1988, this information is taken off of our asset property listing:

  Creosote tank car unloading system.
  New makeup water tank for the steam boiler.
  Micro Motion Meter for the rail car pitch loading station.
  Insulation of the liquid pitch cut back pipelines.
  Tank farm concrete containment areas.
  Pitch melter system.
  Fin tube hot oil heater elements for tank T-68.
  Insulation for the pitch melter tank.
  New pencil pitch storage building.
  Rebuild/restore the oil burning capabilities of the steam boiler.
  Replace the roof on the melter tank T-65.
  Re-insulate the roof of the melter tanks T-65.
  Install new lighting equipment around the melter and new pitch storage building.
  Rebuild the storm water collection system.
  Add zero speed controls to the melter conveyor.
  Replace the original gateway the melter tank T-65.
  Install two metal doors to the new pencil pitch storage building.
  Install the liquid pitch truck loading line and system.
  Added a new sump and sump pump to track 5 area.
  Added a temperature control valve to the sidewall-heating loop on the melter.
  Added audio and visual alarms to the melter hot oil heater.
  Asphalt paving.
  Pencil pitch hauling truck caps.
  821 Case front-end loader.
  Rebuild and upgraded the storm water discharge system.
  Fume tank recovery system upgrades.
  Liquid pitch unloading terminal.
  Liquid pitch tank car-unloading pump.
  Used Toyota forklift.

WASTE REDUCTION ACTIVITIES :

- We have eliminated the sale of creosote and other coal tar distillates that were a big part of our sales in past years, and in the process eliminated the major potential cause of hazardous waste generation, from our operations. In addition, we have paved the areas where these products were handled, thus, eliminating the possibility of an RQ incident.

BEST MANAGEMENT PRACTICIES AND PROCESS IMPROVEMENTS :

- The following is a list of procedures and policies that have been written or issued since 1988:

Melter Operating Procedure.
Truck Top Hoist Inspection Form.
Pencil Pitch Truck Top Inspection Form.
Pencil Pitch Melter Loading Report.
Melter Transfer Report.
Pumping Transfer Procedure From Melter to T-68.
T-200 Transfer Log.
Pitch Tank Truck Loading Procedure.
Pitch Truck Float Adjustment Procedure.
Pitch Rail Tank car Loading Procedure.
Field Data Collection Log.
Control Room Data Collection Log.
Boiler Operation – Start-Up and Shut-Down.
Boiler Chemical Mixing Procedure.
Fume Recovery System – Start-Up and Shut-Down.
Lock Out / Tag Out Book and Log.
Fume Tank T-102 Wash Oil Change-Out.
Preventative Maintenance Check List.
Portable Took Inspection Log.
Fire Fighting Equipment / First Aid Location Map.
Fire Hydrant and Equipment House Inspection Form.
Fire Extinguisher, Eye Wash and Safety Shower Inspection Form.
Oil/Water Separator, Rain Drain and Sump Inspection Report.
Time Clock Policy.
Hazardous Job Pre-Meeting Form.
Fork Lift Daily Record Log.
Rolling Equipment Inspection Log.
Monthly Area Safety / Housekeeping Inspection Report.

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001
Fax: (412) 227-2423

September 23, 1999

Amos Kamerer
Koppers Industries Inc.
Portland Northwest Terminal
7540 NW Saint Helens Road
Portland, OR 97210-3663

RE: Y2K/ BEAZER QUESTIONNAIRE

Dear Amos :

Koppers is completing an in-depth study of our facilities in order to establish all possible claims KII might tender to Beazer prior to the termination of the Asset Purchase Agreement (APA) on December 31, 2000. KU Resources has been assisting us in this study.

KU Resources is tasked with researching issues at the facilities. This involves historical research on the facility, review of documents, photographs and engineering reports (both in our possession and in Beazer's) and, in some cases, interviews with plant employees.

In an effort to identify all issues, we need your assistance. KU Resources has developed the attached questionnaire to assist in this effort. As you read the questionnaire you will see we are attempting to document and quantify every action KII has taken since it assumed control of the facility which may have limited the impact that KII had on the site during our period of ownership.

Please review the questionnaire and provide thorough and accurate responses to each item. If a section does not apply to your facility, please provide a detailed explanation why you feel it does not apply. Please provide your response by 12/27/99. As always, if I can be of any assistance, please contact me at (412) 227-2883.

Sincerely,

Traci I. Self

cc: Leslie Reis
Jim Dietz
Tom DuPlessis
Tim Basilone

cc: T. J. Turner

RECEIVED
SEP 27 1999
KOPPERS INDS, INC.
PORTLAND OR

QUESTIONNAIRE

OPERATING, ENGINEERING, AND PROCESS IMPROVEMENTS POST-ASSET PURCHASE AGREEMENT

Questionnaire Objective: *Document KII's environmental stewardship activities and results since the time of the Asset Purchase Agreement (APA), with regard to the potential release of regulated substances to soil, groundwater, surface water, and sediment.*

Operating Practices and Procedures

SPCC Upgrades

List operating procedures, control measures, and countermeasures that have been established since 1988 to:

- ✓ Prevent spills;
- ✓ Prevent spills from migrating off-site;
- ✓ Contain, cleanup, and mitigate spills.

Describe any spill since 1988, corrective actions taken, and area of plant affected.

List any containment or diversionary structures installed since 1988 and where within the plant these structures were installed.

How often is the plant's SPCC/Contingency Plan updated? How many times has the Plan been reviewed and/or updated since 1988?

Waste Reduction Activities

List any operating practices that have been established since 1988 to:

- ✓ Avoid generating waste;
- ✓ Minimize the quantity of waste generated;
- ✓ Recover, recycle and reuse waste.

Best Management Practices

List any operating practices or structures that have been established since 1988 to:

- ✓ Handle non-stormwater discharge;
- ✓ Improve operation and maintenance of processes and equipment;
- ✓ Implement careful storage practices;
- ✓ Schedule routine cleanup operations; and
- ✓ Train employees on good housekeeping.

Describe any program of inspection or routine maintenance of process equipment, tanks, drums, containers, etc.

Describe any sediment and erosion control measures installed and the portion of the plant these structures control.

Describe any stormwater management controls such as vegetative swales, reuse of collected stormwater, collection systems, infiltration trenches, or detention ponds, etc., and the portion of the plant these structures manage/control.

Other

List any other housekeeping or environmental stewardship initiatives and corresponding results.

Engineering and Treating Practices

Treating Solutions	List any change of treating solutions or upgrades in treating solution efficacy (retention within the wood), since 1988.
Plant Configuration	List any changes in the plant configuration or change in use/non-use of any of the plant area, since 1988.
Process Improvements	List any improvements to the process related to: ✓ Reducing or minimizing the amount of treating solution released to the environment (drippage); ✓ Use and disposal of contact water; ✓ Tank upgrades or use/nonuse; ✓ drip pad upgrades; ✓ Storage area consolidation; ✓ Piping upgrades; ✓ Etc.
Water	List the presence, location, and use of any groundwater wells used to supply water to the plant.

List all capital projects implemented at the plant since 1988, which were beneficial in preventing or cleaning-up soil and/or groundwater contamination.

LAIDLAW ENVIRONMENTAL SERVICES
"An Equal Opportunity Employer"

LOKERN - 518
LAIDLAW ENV.SVCS OF CALIFORNIA,INC.
2500 W.LOKERN ROAD
BUTTONWILLOW, CA 93206
Telephone: 805-835-[illegible]

FEDERAL ID NUMBER: 57-0891472

DATE	INVOICE NO.
06/16/93	51830616027

RECEIVED
JUN 21 1993

Page 001

931866 - 3 -

KOPPERS INDS. INC.
PORTLAND OR

ATTN: JOHN OXFORD
KOPPERS INDUSTRIES, INC.
7540 N.W.SAINT HELENS ROAD
PORTLAND, OR 97210-3663

KOPPERS INDUSTRIES, INC.
7540 N.W.SAINT HELENS ROAD
PORTLAND, OR 97210-3663
SALES: DANN SCHOENDORF

TRANSPORTED BY	TERMS	DATE SHIPPED	P.O. NUMBER
LES	Net 10 Days	04/21/93	

WORK ORDER NO.	QUANTITY SHIPPED	DESCRIPTION	UNIT PRICE	AMOUNT
[illegible]	1.000	PROFILING FEE	350.0000	350.00
		MANIFEST #: WASTE CODE: 1464IDR		
		PROFESSIONAL SERVICES GROUP SUBTOTAL		$ 350.00
		SUBTOTAL FOR INVOICE		$ 350.00
		County Tax		$ 0.00

ENTERED JUN 23 1993

Please Remit To: LAIDLAW ENV.SVCS OF CALIFORNIA,INC.
P.O. BOX 100026
PASADENA, CA 91189-0026

TOTAL DUE $ 350.00

585-4501-585001 8/92

CUSTOMER COPY

KI 37G REV.2 2M 6/90

GIL	DET	S-DET	LOC	DEPT	TAX	EMP #	MOVE # / PO #	AMOUNT
305	807		9270	900	0362			350 00

CIRCLE TERMS ON INVOICE

INV 51830616027 DATE 06/16/93

A/P DEPARTMENT USE ONLY

VENDOR NUMBER 0 0 8 3 7 0 0 0 1

TERMS CODE 045 DUE DATE / /

OK TO PAY J.C. O'Konek

IMPORTANT: CIRCLE TERMS ON INVOICE

GROSS AMOUNT	
DISCOUNT %	
NET $	350 00

DIVISION	MONTH	AUDIT NUMBER
483	06	92720565

Koppers019960

LAIDLAW ENVIRONMENTAL SERVICES
"An Equal Opportunity Employer"

LOKERN - 518
LAIDLAW ENV.SVCS OF CALIFORNIA,INC.
2500 W.LOKERN ROAD
BUTTONWILLOW, CA 93206
Telephone: 805-835-5801

FEDERAL ID NUMBER: 57-0891472

DATE	INVOICE NO.
06/16/93	51830616027

931866 - 3 -

ATTN: JOHN OXFORD
KOPPERS INDUSTRIES, INC.
7540 N.W.SAINT HELENS ROAD

PORTLAND, OR 97210-3663

KOPPERS INDUSTRIES, INC.
7540 N.W.SAINT HELENS ROAD

PORTLAND, OR 97210-3663
SALES: DANN SCHOENDORF

TRANSPORTED BY	TERMS	DATE SHIPPED	P.O. NUMBER
LES	Net 10 Days	04/21/93	

WORK ORDER NO.	QUANTITY SHIPPED	DESCRIPTION	UNIT PRICE	AMOUNT
15867	1.000	PROFILING FEE	350.0000	350.00
		MANIFEST # WASTE CODE: 1464IDR		
		PROFESSIONAL SERVICES GROUP SUBTOTAL		$ 350.00
		SUBTOTAL FOR INVOICE		$ 350.00
		County Tax		$ 0.00

Please Remit To: LAIDLAW ENV.SVCS OF CALIFORNIA,INC.
P.O. BOX 100026

PASADENA, CA 91189-0026

TOTAL DUE $ 350.00

585-4501-585001 6/92

REMITTANCE COPY

LAIDLAW
ENVIRONMENTAL
SERVICES

Generator Name: KOPPERS

Sample Description: CREOSOTE SPILL CLEAN UP

Laboratory Number: 15867
Date Received: 4-6-93
Date Reported: 4-13-93

Metal Name	Result (mg/kg)	TCLP Result (mg/kg)	Analytical Method (1)
Barium	14		7080
Cadmium	ND		7130
Chromium	ND		7190
Copper	ND		7201
Lead	54		7420
Nickel	ND		7520
Silver	ND		7760
Thallium	ND		7840
Vanadium	ND		7910
Zinc	106		7950

Constituent	Result (mg/kg)
Total PCB's	<5
TOX	442
Total VOC	ND

Other Constituents	Spot Test	Total (ppm)	Reactive (ppm)
Sulfide	NEGATIVE		
Cyanide	NEGATIVE		
Ammonia			
Fluoride			
Hexavalent Chromium			
Formaldehyde			
Phenols	POSITIVE	1.5	
Halogenated Organics			
Absorbancy	FAIL		
% Solids			
% Water			
% Oil			
% Unrecoverable			
pH	5.45		
Specific Gravity			
Flashpoint (PMCC)			

1 - "Test Methods For Evaluating Solid Wastes", SW 846, September 1986

Comments:

Laidlaw Environmental Services (Lokern), Inc.
2500 West Lokern Road Post Office Box 787 Buttonwillow, California 93206
Phone 805.762.7372 Fax 805.762.7681

A Recycled Paper

BC LABORATORIES

LAIDLAW ENVIRONMENTAL SERVICES
P. O. BOX 787
BUTTONWILLOW, CA 93206
Attn.: PURCHASING 1-762-7372

Date Reported: 04/09/93 Page 1
Date Received: 04/06/93
Laboratory No.: 93-03216-3

Sample Description: #15867 KOPPERS CO.-PORTLAND CREOSOTE SPILL CLEANUP

TOTAL CONTAMINANTS
(California Code of Regulations, Title 22, Section 66261)

Constituents	Sample Results	Units	Method P.Q.L.	Method	Regulatory Criteria STLC mg/L	Regulatory Criteria TTLC mg/kg
Arsenic	3.9	mg/kg	1.0	SW-7060	5.0	500.
Mercury	0.25	mg/kg	0.2	SW-7471	0.2	20.
Selenium	None Detected	mg/kg	1.0	SW-7740	1.0	100.

Comment: All above constituents are reported on an as received (wet) sample basis. Results reported represent totals (TTLC) as sample subjected to appropriate techniques to determine total levels.

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte detectable based on sample size used and analytical technique employed).
STLC = Soluble Threshold Limit Concentration
TTLC = Total Threshold Limit Concentration

REFERENCES:
SW = "Test Methods for Evaluating Solid Wastes Physical/Chemical Methods", EPA-SW-846, September, 1986.

Department Supervisor

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

FAX TRANSMITTAL

KOPPERS INDUSTRIES, INC.
7540 NW SAINT HELENS RD.
PORTLAND, OR 97210-3663

TELEPHONE: 503-286-3681
FAX: 503-285-2831

TO: Jill Merrill, ACCI

DATE:
5//4/99

FROM: Amos Kamerer

TOTAL # OF
PAGES: 6

SUBJECT: 1998 SARA Report

Jill,

Attached is the info that we discussed earlier today.

The following tanks were put into storm water surge service as of 4/30/98:
T-3, T-17, T-23, and T-34

If any questions, please call.

Amos

IF THIS TRANSMITTAL IS RECEIVED IN ERROR, PLEASE ADVISE.

(51)

HAZARDOUS AND NON-HAZARDOUS DISPOSAL LOG
KOPPERS INDUSTRIES, INC.
PORTLAND, OREGON TERMINAL

Date of Shipment	Destination	Handled By	Material Shipped	Quantity Shipped
4/24/90	Arlington, Oregon	Chem-Security Systems	creosote spill, rags & absorbents	20 drums
5/18/93	Lohern, Calif.	Laidlaw Environmental Services	creosote spill, rags & absorbents	3 drums
9/28/95	San Jose, Calif.	USPCI-Solvent Services	creosote spill, rags & absorbents	3 drums
7/02/97	Houston, Texas	Eltes Environmental Services	no-longer used laboratory chemicals	4 lab packs
3/05/98	Delta, BC, Canada	Laidlaw Environmental Services	creosote spill, rags & absorbents	2 drums
3/05/98	Knolls, Ut.	Laidlaw Environmental Services	refined tar spill rags & absorbents (non-hazardous)	6 drums
1/18/99	Clive,Utah	Safety –Kleen (TG) Inc.	creosote spill, rags & absorbents	4 drums

Koppers019965

(16)

SPILL/RELEASE REPORT

1 - GENERAL INFORMATION

OERS No. 98-0227

a. Company/Individual Name: Koppers Industries, Inc.

b. Address: 7540 NW St Helens Road
Portland, OR 97210

c. Company Contact Person: Amos Kamerer

d. Phone Number(s): (503) 286-3681

e. Specific on-site location of the release (and address if different from above):
Area around tank #68

Please provide a map of the site showing area(s) where the release occurred, any sample collection locations, location of roads/ditches/surface water bodies, etc.

2 - RELEASE INFORMATION

a. Date/Time Release started: estimated 1:05pm Date/Time stopped: 1:15pm

b. Release was reported to (specify Date/Time/Name of Person contacted where applicable):

ODEQ

OERS 1/28/98, 5:50pm, Tami

NRC 1/28/98, 5:40pm, Miss Ebner

(1)Other (describe): Portland Fire Bureau, Station #22, Bill Henle, 1/28/98, 1:30pm

c. Person(s) reporting release: Amos Kamerer

d. Name, quantity and physical state (gas, liquid, solid or semi-solid) of material(s) released:
coal tar pitch, liquid

Please attach copies of material safety data sheets (MSDS) for released material(s).

e. The release affected: ___Air ___Groundwater ___Surface Water ___Soil _X_Sediment

f. Name and distance to nearest surface water body(s), even if unaffected (include locations of creeks, streams, rivers and ditches that discharge to surface water on maps):
Willamette River, about 2,000 feet to the north

Has the release reached the surface water identified above?: ___Yes _X_No
Could the release potentially reach the surface water identified above? ___Yes _X_No
Explain: Coal tar pitch solidifies as hard as coal at ambient temperatures, when contained and cooled, we picked it up and recycled it.

g. Depth to nearest aquifer/groundwater: unknown

Is nearest aquifer/groundwater potable (drinkable)? ___Yes _X_No
Has the release reached the nearest aquifer/groundwater? ___Yes _X_No
Explain: Material solidifies when cooled and is not water soluable.

(1) City of Portland, Environmental Services, Steve Rosenberger, John Holtrop, 1/28/98, 1:30pm

h. Release or potential release to the air occurred? ___Yes _X_No
Explain:

i. Was there a threat to public safety? ___Yes _X_No
j. Is there potential for future releases? ___Yes _X_No
Explain: Similar event is possible, but unlikely.

k. Describe other effects/impacts from release (emergency evacuation, fish kills, etc.):
Insignificant environmental impact.

l. Describe how the release occurred. Include details such as the release source, cause, contributing weather factors, activities occurring prior to or during the release, dates and times of various activities, first responders involved in containment activities, etc.:
While transferring molten pitch to our shipping tank, T-68, the tank over flowed due to the mechanical failure of the gauging device. All spilled material was contained on site. 100% was recovered. 99% was recycled, and 1% was disposed of as a non-hazardous material. A passer by called 911 and the Portland Fire Bureau station #22 responded at about 1:30pm, saw that we had the material contained, and then departed.

3 - SITE INFORMATION

a. Adjacent land uses include (check all that apply and depict on site maps):
___Residential ___Commercial ___Light Industrial _X_Heavy Industrial
___Agricultural ___Other (describe):
b. What is the population density surrounding the site: light
c. Is the site and/or release area secured by fencing or other means? _X_Yes ___No
d. Soil types (check all that apply): ___alluvial ___bedrock _X_clay _X_sandy
___silt ___silty loam _X_artificial surface (cement/asphalt/etc.)
e. Describe site topography: Flat

(18)

5 - SAMPLING INFORMATION

Attach copies of all sample data and indicate locations of sample collection on maps.

a. Were samples of contaminated soil collected? ___Yes ___No _X_N/A
b. Were samples of contaminated water collected? ___Yes ___No _X_N/A
c. Were samples collected to show that all contamination had been removed?
___Yes ___No _X_N/A
d. Describe sampling activities, results and discuss rationale for sampling methods:

6 - SPILL REPORT CHECKLIST

To ensure that you have gathered all the information requested by the Department in this Spill/Release Report, please complete the following checklist:

_X_ Map(s) of the site showing buildings, roads, surface water bodies, ditches, waterways, point of the release, extent of contamination, areas of excavation and sample collection locations attached.

_X_ Material Safety Data Sheet (MSDS) for released material(s) attached.

_N/A_ Sampling data/analytical results attached.

_N/A_ Receipts/manifests (if any) for disposal of cleanup materials attached.

_N/A_ Contractor reports (if any) attached.

4 - CLEANUP INFORMATION

a. Was site cleanup performed? _X_ Yes ___ No
If No, explain: _____

b. Who performed the site cleanup?
Company Name: Koppers Industries, Inc.
Address: 7540 NW St Helens Road
Portland, OR 97210
Cleanup Supervisor: T.J. Turner
Phone Number(s): (503) 286-3681

c. Has all contamination been removed from the site? ___ Yes _X_ No
If No, explain: This material has been collected and is being held in a secure area, to be properly land fill disposed of, in the future.

d. Estimated volume of contaminated soil removed: less than 100 pounds

e. Estimated volume of contaminated soil left in place: 0

f. Was a hazardous waste determination made for cleanup materials? ___ Yes _X_ No

g. Based on the determination, are the cleanup materials hazardous wastes?
___ Yes _X_ No If Yes, list all waste codes: _____

h. Was contaminated soil or water disposed of at an off-site location? ___ Yes _X_ No
If yes, attach copies of receipts/manifests/etc., and provide the following information:
Facility Name: _____
Address: _____
Facility Contact: _____
Phone Number(s): _____

i. Is contaminated soil or water being stored and/or treated on-site? _X_ Yes ___ No
If yes, please describe the material(s), storage and/or treatment area, and methods utilized (attach additional sheets if necessary):
This material has been collected and is being held in a secure area, to be properly land fill disposed of, in the future.

j. Describe cleanup activities including what actions were taken, dates and times actions were initiated and completed, volumes of contaminated materials that were removed, etc. (attach additional sheets or contractor reports if necessary or more convenient):
After the pitch cooled and solidified, it was picked up with shovels and front end loaders for recycling back into our process. The calculated spillage was 6.985 tons. All of this was cleaned up and recycled with in 7 working days.

SPEED LETTER®

TO Jill Merrill
Air Compliance Consultants
1050 William Pitt Way
Pittsburgh, PA 15238

FROM Amos Kantack
KEI
Portland

SUBJECT SARA 313

FOLD NO. 9 or 10

MESSAGE

Attached please find the info for Portland —
Let me know if you need anything else —

DATE 4/27/99 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

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AIR/COMPLIANCE CONSULTANTS, INC.

Memorandum

To:	Amos Kamerer
Company:	Koppers Industries, Inc., Portland Tar Plant
From:	Kim Coy/Jill Merrill/Bill Cowell
Date:	March 4, 1999
Subject:	1998 SARA Report

Dear Amos:

We are trying to get a jump-start on the 1998 SARA Report. The following information will be needed to complete the report:

Tanks/Loading Racks/Fugitive Emissions

1. 1998 process production/usage rates for pitch, heavy oil, P1/P13 creosote, UCC, P&R Oil, CMN, NSR, refined tar
2. 1998 tank material contents and throughputs

Scrubber Information

1. Description of scrubber fluids used and time period when used for 1998?
2. Quantity of scrubber fluids used?
3. Description of recycling/disposal/treatment activities associated with the scrubber fluids. For example, if the spent scrubber solution is combined with the heavy oil or other tank(s), how much was combined.

Recycling/Treatment/Disposal Information

1. 1998 water discharge sample information
2. Tank and tank car cleaning
    - Any cleaning activities in 1998? If yes, quantity of material removed from cleaning and description of composition
    - Where did it go and how was it treated?
3. Any waste (sludge, et cetera) incinerated on-site?
4. Information (description and amount) of any other recycling activities?
5. Hazardous waste shipments
    - Type of hazardous waste shipped in/998
    - Quantity of waste
    - Location of where waste was sent and description of how it was treated.

Miscellaneous Information

1. Projected production for 1999 and 2000
2. Have there been any process changes since the 1997 inventory/
3. Has any control equipment been added/removed since 1997 inventory? If s, when?

If you have any questions or comments, please give me a call at 412 826-3636.

Regards, Kim

AIR/COMPLIANCE CONSULTANTS, INC.

Memorandum

J.11 - 5/4/99

To:	Amos Kamerer
Company:	Koppers Industries, Inc., Portland Tar Plant
From:	Kim Coy/Jill Merrill
Date:	May 3, 1999
Subject:	1998 SARA Report

Dear Amos:

Thank you for the tank throughput and waste water data. The following additional data is also needed in order to complete the 1998 inventory:

Tanks 3/23/34/17

1. It is our understanding that some of the tanks are no longer in service. Please provide which tanks are no longer in service, and the date they were taken out of service

Scrubber Information

1. Description of scrubber fluids used and time period when used for 1998?
2. Quantity of scrubber fluids used?
3. Description of recycling/disposal/treatment activities associated with the scrubber fluids. For example, if the spent scrubber solution is combined with the heavy oil or other tank(s), how much was combined. N/A

Recycling/Treatment/Disposal Information

1. Tank and tank car cleaning
   - Any cleaning activities in 1998? If yes, quantity of material removed from cleaning and description of composition N/A
   - Where did it go and how was it treated?
2. Any waste (sludge, et cetera) incinerated on-site?
3. Information (description and amount) of any other recycling activities?
4. Hazardous waste shipments
   - Type of hazardous waste shipped in 1998
   - Quantity of waste
   - Location of where waste was sent and description of how it was treated.

Miscellaneous Information

1. Projected production for 1999 and 2000 71,000 ST.
2. Have there been any process changes since the 1997 inventory? - NO
3. Has any control equipment been added/removed since 1997 inventory? If s, when? -NO

If you have any questions or comments, please give me a call at 412 826-3636.

Regards, Kim

KOPPERS INDUSTRIES

Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Telephone: (412) 227-2001

November 29, 1999

McDowell Welding & Pipefitting, Inc.
4000 NW St. Helens Road
Portland, OR 97210

Attention: Kurt Liebe, General Manager

RE: Pacific Northern Spill on or about August 19, 1999

As you know, Pacific Northern, Inc. has made a claim against Koppers Industries, Inc. ("Koppers") concerning a spill on the property of Pacific Northern, Inc. It is our understanding that this spill resulted from the actions of McDowell Welding & Pipefitting, Inc. ("McDowell") on or about August 19, 1999. Further, it would appear as though this incident was the result of activities your company was performing on behalf of Koppers.

Please be advised that Koppers expects McDowell to indemnify and defend Koppers from any and all liability and responsibility arising out of the incident, and we would ask that you confirm in writing you intention to do so at your earliest convenience.

In addition, attached is the first invoice from Pacific Northern, Inc. for the spill clean up. Please see that it is promptly paid and that I am notified when payment has been made.

Should you have any comments or questions concerning this matter, please do not hesitate to contact me.

Very Truly Yours,

Jack L. Stephenson
Manager of Purchasing

JLS/blh

BCC: Without attachment – Amos Kamerer – Portland
Without attachment - Jim Dietz – K 1650
Without attachment - Tracy Self – K 1801
Without attachment – Steve Kifer – K 1701

PACIFIC NORTHERN INC.
100 West Harrison · Suite 420 North Tower · Seattle, WA 98119
Telephone 206 / 282-4421 · FAX 206 / 282-6574

November 11, 1999

Amos Kamerer
Koppers Industries
7540 NW St. Helens Road
Portland, OR 97210

Dear Amos:

Enclosed is an invoice for the 1st phase of clean up for the spill at Pacific Northern Oil's facility in Portland on August 19, 1999. Please reference my letter to you dated October 5, 1999.

There will be another invoice for the balance that we will be sending to you at the end of the month.

If you have any questions or require additional information please call Brad Perry in our Seattle office. He can be reached at 206-282-4421.

Thank you for your cooperation and assistance with the processing and payment.

Very truly yours,

George Markwood

George Markwood
Vice President

INVOICE NUMBER: 107896

P[redacted]CORP.

100 West Harrison - Suite 420 North Tower
Seattle, WA 98119 206 / 282-4421
TLX 32-1034 TWX 910-444-4043 FAX 206-282-6574

LIFT DATE : 11/10/99
P/O NUMBER :

IN ACCOUNT WITH:
KOPPERS CO.
7540 NW ST HELENS RD
PORTLAND, OR 97210-3663

FOB : SELLER'S TERM.
PUGET SOUND
SHIPPED VIA:

TERMS : UPON RECEIPT OF INVOICE
DUE DATE : 11/10/99

SHIPPED TO:

Late payment penalty 1.5% per month.

LIFT DATE	DESCRIPTION	PRICE	AMOUNT
	OIL SPILL CLEAN UP - PORTLAND, OR		30,895.93
	TOTAL AMOUNT INVOICED (USD)		30,895.93

100 West Harrison / Suite 420 North Tower
Seattle, WA 98119

The amounts determined as owing above shall be conclusive unless purchaser and/or its agent dispute said amounts within twenty days of receipt hereof.

50*21515

Koppers019975

ASSOCIATED EARTH SCIENCES, INC

BAINBRIDGE ISLAND OFFICE
179 Madrone Lane North
Bainbridge Island, WA 98110
(206) 780-9370
FAX (206) 780-9438

CORPORATE OFFICE
911 Fifth Avenue, Suite 100
Kirkland, Washington 98033
(425) 827-7701
FAX (425) 827-5424

September 27, 1999

Pacific Northern
100 West Harrison - Ste 420, North Tower
Seattle, WA 98119

Attention: George Markwood

INVOICE NO. B923-BV99125A
PROJECT NO. BV99125A
Portland OR Terminal
PANOCO/WVG

PROFESSIONAL SERVICES: Progress invoice for services recorded through September 17, 1999

Oil Spill Response, Portland, Oregon terminal

Senior Staff Scientist	52.5 hrs @ $65/hr		$3,412.50
Word Processing/Clerical	1.0 hrs @ $35/hr		35.00
Expenses			
Mileage	1108 miles @ $0.40	50x1100x2000	443.20
Meals		$50	30.06
Lodging			88.00
Film developing			6.16
Friedman & Bruya (analytical testing)			1,305.25
		TOTAL	$5,320.17

RECEIVED
SEP 29 1999
BY:

TOTAL DUE THIS BILLING $5,320.17

PLEASE REMIT DUPLICATE COPY!!!

INVOICE

FOSS ENVIRONMENTAL SERVICES

5420 N Lagoon
Portland OR 97217

REMIT TO: **DEPT. 5251, PO BOX 34936**
SEATTLE, WA 98124-1936

Invoice #: I-P9328-01
FES Job #: P9328
Customer PO#:

Invoice Date: September 16, 1999

Customer: Pacific Northern Oil Company
7900 NW St. Helens Rd.
Portland, OR 97210

Contact: Mike Satre
Phone: 286-5321
Fax:
Terms: Net 30 Days

Job Description: Respond to oil spill in tank farm.

Job Location: 7900 NW St. Helens Rd. Portland, OR

Job Date (s): 8/19-8/25/99

50x1100x2000
A 50%
B

Progress Billing: x
Final Billing:

QUANTITY	DESCRIPTION	UOM	UNIT PRICE	EXTENDED PRICE
1	LABOR	EA	$8,185.00	$8,185.00
1	EQUIPMENT	EA	$1,788.30	$1,788.30
1	MATERIALS	EA	$1,155.60	$1,155.60
1	OTHER	EA	$2,254.98	$2,254.98

INVOICE SUBTOTAL	$13,383.88
TAX	$0.00
INVOICE TOTAL	$13,383.88

Currency: USD

THANK YOU FOR YOUR BUSINESS

Tim Archer
503-283-1150
Direct Phone

FED ID #: 91-1572532
A 1.5% PER MONTH FINANCE CHARGE WILL BE ASSESED FOR ALL PAST DUE INVOICES.

CC: ACCOUNTING

Koppers019977

FOSS ENVIRONMENTAL INC.		CUSTOMER NAME:	Pacific Northern Oil C	PHONE:	286-5321	PROGRES	
JOB NUMBER:	P9328	ADDRESS:	7900 NW St. Helens	CONTACT:	Mike Satre	FINAL:	
INVOICE NUMBER:	I-P9328-01	DATE: 9/16/99	Portland, OR 97210	PO:			
JOB DESCRIPTION:	Respond to oil spill in tank farm						
JOB LOCATION:	7900 NW St. Helens Rd. Portland, OR						

LABOR CHARGES		DATE	DATE	DATE	DATE	DATE	DATE	DATE		
LABOR GRADE	RATE	8/19/99	8/20/99	8/23/99	8/24/99	8/25/99			TOTAL	CHARGE
Proj. Manager- T Archer ST	$100.00	3.00	8.00	8.00		4.50			23.5	$2,350.00
Proj. Manager- T Archer OT	$100.00	2.00	4.00	2.00					8.0	$800.00
Supervisor- K Benedict ST	$55.00	0.50							0.5	$27.50
Supervisor- K Benedict OT	$67.00	3.50							3.5	$234.50
Technician- B Asmussen ST	$42.00	3.00	8.00						11.0	$462.00
Technician- B Asmussen OT	$54.00	6.00	2.00						8.0	$432.00
Technician- D Armbruster ST	$42.00	3.00	8.00						11.0	$462.00
Technician- D Armbruster OT	$54.00	3.50	4.00						7.5	$405.00
Technician- B Jolma ST	$42.00		8.00	8.00	8.00				24.0	$1,008.00
Technician- B Jolma OT	$54.00		4.00	2.00	3.00				9.0	$486.00
Technician- B Hyke ST	$42.00			8.00		7.50			15.5	$651.00
Technician- B Hyke OT	$54.00								0.0	$0.00
Technician- R Quiray ST	$42.00	3.00	8.00						11.0	$462.00
Technician- R Quiray OT	$54.00	3.50	4.00						7.5	$405.00
							LABOR TOTAL			$8,185.00

EQUIPMENT CHARGES	RATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
		08/19/99	8/20/99	8/23/99	8/24/99	8/25/99			TOTAL	CHARGE
Pick up - #1073	$100.00	1.00	1.00	1.00		1.00			4.0	$400.00
Mileage	$0.00	19.00	19.00	19.00		19.00			76.0	$0.00
Pick up - #1070	$100.00	1.00							1.0	$100.00
Mileage	$0.00	19.00							19.0	$0.00
Gear Truck 1 Ton- #1021	$125.00	1.00	1.00	1.00	1.00	1.00			5.0	$625.00
Mileage	$0.00	38.00	19.00	19.00	19.00	19.00			114.0	$0.00
Gear Truck 1 Ton- #1023	$125.00		1.00						1.0	$125.00
Mileage	$0.00		19.00						19.0	$0.00
70 bbl Vacuum Truck/HR	$38.00	2.50	4.00						6.5	$247.00
Mileage	$0.00	29.00	29.00						58.0	$0.00
Air Compressor	$100.00	1.00							1.0	$100.00
Vac-u-max	$80.00	1.00							1.0	$80.00
Drum Dolly	$0.00	1.00	1.00						2.0	$0.00
Cellular Phone	$50.00	1.00	1.00	1.00	1.00	1.00			5.0	$250.00
Hand Tools	$5.00	5.00	3.00	3.00	1.00				12.0	$60.00
Discount	10%								-198.7	-$198.70
	RATE					EQUIP TOTAL				$1,788.30

MATERIALS CHARGES	RATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
		8/19/99	8/20/99	8/23/99	8/24/99	8/25/99			TOTAL	CHARGE
Level D PPE	$35.00		4.00	3.00	1.00				8.0	$280.00
Rain Gear	$20.00	2.00							2.0	$40.00
Black Rubber Gloves	$8.00	4.00				2.00			6.0	$48.00
Cotton Gloves	$2.00					3.00			3.0	$6.00
Floor Dry	$7.50	40.00	10.00						50.0	$375.00
Sorbent Pads	$75.00	1.00		1.00	1.00				3.0	$225.00
55 Gallon Drums	$45.00	6.00							6.0	$270.00
Rags	$75.00		1.00						1.0	$75.00
Hand Cleaner	$10.00		1.00						1.0	$10.00
Simple Green	$15.00		1.00						1.0	$15.00
Visqueen	$78.00		1.00						1.0	$78.00
Drum Liners	$1.36		10.00						10.0	$13.60
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
						MATL TOTAL				$1,155.60

MISC. CHARGES	RATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
		8/19/99	8/20/99	8/23/99	8/24/99	8/25/99			TOTAL	CHARGE
Spencer Environmental- Box Rental	18%		1911						1,911.00	$2,254.98
									0.00	$0.00
									0.00	$0.00
						MISC TOTAL				$2,254.98
						TOTAL CHARGES				$13,383.88

Koppers019978

SPENCER ENVIRONMENTAL

Protecting the Environment

6400 SE 101st Ave. • Portland, Oregon 97266
(503) 788-4612 Fax: (503) 788-4629

INVOICE #: 49151

DATE: Aug 30 99

BILL TO:
FOSS ENVIRONMENTAL
5420 N LAGOON AVE
PORTLAND, OR 97217

LOCATION:
PACIFIC NORTHERN OIL CO
7900 NW ST HELENS RD
PORTLAND, OR

CUST #	EMP INT	PO #	DATE OF JOB	JOB #	TERMS NET	DUE DATE	ORDER #
19040	ES		Aug 20 99		30 DAYS	Sep/29/99	66265

DELIVER 20 YARD DROP BOXES TO SITE FOR OIL SPILL CLEAN-UP. TRANSFER BOXES ON-SITE AS DIRECTED BY CLIENT.

02/20/99: DELIVER (2) 20 YARD BOXES #H-6 & #H-5

0001-00NT-0103-0SHS	TRK TRANSPORT#103 STANDAR	8.00	70.00	HR	560.00
0005- REN-0004-	DROP BOX RENTAL (20 YARD	11.00	14.50	DA	159.50
0005- REN-0004-	DROP BOX RENTAL (20 YARD	11.00	14.50	DA	159.50
0004-00Y2-0BOX-0SUS	DROP BOX LINER (SITE CLEA	4.00	40.00	EA	160.00

02/23/99: DELIVER (2) ADDITIONAL 20 YARD BOXES AND STANDY BY FOR MOVING AND WEIGHING OF BOXES ON-SITE FOR CLIENT

0001-00NT-0103-0SHS	TRK TRANSPORT#103 STANDAR	8.00	70.00	HR	560.00
0001-00NT-101A-0SHS	TRLR TRANSPORT#101A STAND	8.00	10.00	HR	80.00
0005- REN-0004-	DROP BOX RENTAL (20 YARD	8.00	14.50	DA	116.00
0005- REN-0004-	DROP BOX RENTAL (20 YARD	8.00	14.50	DA	116.00

RECEIVED
SEP 07 1999
Ans'd.....

PLEASE REMIT PAYMENT TO:
6400 S.E. 101st AVENUE
PORTLAND, OR. 97266-5142

ORDERED BY: TIM ARCHER - 283-1150

0.00

1,911.00

PAY THIS AMOUNT →

A FINANCIAL CHARGE of 1½% per month may be applied to any Past Due amount. Past Due Accounts may be placed on C.O.D. without notification. If outside collection action is necessary purchaser shall pay all costs of collection including reasonable attorney fees.

INVOICE

FOSS ENVIRONMENTAL SERVICES
5420 N Lagoon
Portland OR 97217

REMIT TO: DEPT. 5251, PO BOX 34936
SEATTLE, WA 98124-1936

Invoice Date: November 4, 1999

Invoice #: I-P9328-02
FES Job #: P9328
Customer PO#:

Customer: Pacific Northern Oil Co
7900 NW St. Helens
Portland, OR

Contact: Mike Satre
Phone: 286-5321
Fax:
Terms: Net 30 Days

Job Description: Disposal of Contaminated Soil

Job Location: Portland

Job Date (s): 10/5/-10/7/99

Progress Billing:
Final Billing: X

QUANTITY	DESCRIPTION	UOM	UNIT PRICE	EXTENDED PRICE
1	LABOR	EA	$1,774.00	$1,774.00
1	EQUIPMENT	EA	$413.55	$413.55
1	MATERIALS	EA	$105.00	$105.00
1	OTHER	EA	$9,899.33	$9,899.33
				$0.00
				$0.00
			INVOICE SUBTOTAL	$12,191.88
			TAX	$0.00
			INVOICE TOTAL	$12,191.88

Currency: USD

THANK YOU FOR YOUR BUSINESS

Tim Archer
503-283-1160
Direct Phone

FED ID #: 91-1572532
A 1.5% PER MONTH FINANCE CHARGE WILL BE ASSESED FOR ALL PAST DUE INVOICES.

CC: ACCOUNTING

50 x 110 x 20

Revenue

revenue

FOSS ENVIRONMENTAL INC.			CUSTOMER NAME:	Pacific Northern Oil Co	PHONE:	286-5321	PROGRESS:		
JOB NUMBER:	P9328		ADDRESS:	7900 NW St. Helens	CONTACT:	Mike Satre	FINAL:	X	
INVOICE NUMBER:	I-P9328-02	DATE:	11/4/99	Portland, OR	PO:				
JOB DESCRIPTION:	Disposal of contaminated soil								
JOB LOCATION:	Portland								

LABOR CHARGES		DATE	DATE	DATE	DATE	DATE	DATE	DATE		
LABOR GRADE	RATE	10/5/99	10/6/99	10/7/99					TOTAL	CHARGE
Project Manager T. Archer ST	$100.00	1.00							1.0	$100.00
Project Manager T. Archer OT	$100.00								0.0	$0.00
Supervisor S. Teeters ST	$55.00		4.00	8.00					12.0	$660.00
Supervisor S. Teeters OT	$67.00								0.0	$0.00
Technician B. Walls ST	$42.00	3	4.00	8.00					15.0	$630.00
Technician B. Walls OT	$54.00								0.0	$0.00
Technician R. Quiray ST	$48.00		4.00						4.0	$192.00
Technician R. Quiray OT	$54.00								0.0	$0.00
Technician B. Assmussen ST	$48.00		4.00						4.0	$192.00
Technician B. Assmussen OT	$54.00								0.0	$0.00
									0.0	$0.00
						LABOR TOTAL				$1,774.00

EQUIPMENT CHARGES	RATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
		10/05/99	10/6/99	10/7/99					TOTAL	CHARGE
One Ton Gear Truck	$100.00	1.00	1.00	1.00					3.0	$300.00
Cell Phone	$50.00		1.00	2.00					3.0	$150.00
Hand Tools	$5.00		2.00						2.0	$10.00
Discount	10%								-464.5	-$46.45
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
	RATE					EQUIP TOTAL				$415.55

MATERIALS CHARGES	RATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
		10/5/99	10/6/99	10/7/99					TOTAL	CHARGE
Level D PPE	$35.00		3.00						3.0	$105.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
									0.0	$0.00
						MATL TOTAL				$105.00

MISC. CHARGES	RATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
		10/5/99	10/6/99	10/7/99					TOTAL	CHARGE
Dump Truck Rental	18%			$470.00					$84.60	$554.60
Drop Box Rental	18%	$2,892.00							$520.56	$3,412.56
Fill Material	18%			$553.48					599.63	$653.11
Disposal	18%		$2,131.86	$1,763.92					701.24	$4,597.02
Backhoe Rental	18%	$257.00							$46.26	$303.26
Loader Landscaper 60hp	18%			$271.00					$48.78	$319.78
Plate Compactor Rental	18%	$50.00							$9.00	$59.00
						MISC TOTAL				$9,899.33
						TOTAL CHARGES				$12,191.88

ID:

JUN 15'03 4:43 No.002 P.04

INVOICE FACSIMILE

** COPY **

Equipment Rental

R.A. No. 1146898-

PAGE

BRANCH: 724	BILL TO CUSTOMER: 1277360	SHIPPING ADDRESS
9724 HERTZ EQUIPMENT 4939 N.E. COLUMBIA BLVD. PORTLAND, OR 97218 503-287-5799	FOSS ENVIRONMENTAL SERVICES CO 5420 NORTH LAGOON PORTLAND, CA 99999	PORTLAND WILL CALL COLUMBIA BLVD PORTLAND, OR 97218 510-749-1390

DESCRIPTION/CHARGES

EST START: 10/07/99 8:00 EST RETURN: 10/07/99 3:30 DROP DATE:

SHIPPED BY: ORDERED BY: SHANE DROP TIME:

ORDER DATE: 10/07/99 SALESPERSON: 773 SALES COORDINATOR:

PO# / JOB#: T932806 / 1 - PORTLAND WILL CA

Rates include maintenance service

Qty	Equipment #	Min	Day	Week	4 Week	Amou
1	BOXDUMP/12-14YD/DSL 656140024 Make: IH Model: 2674-01 Ser #: 1HTGLATT9YH252718	445.00	445.00	1335.00	4000.00	445.

MI OUT: 4361.10 MI IN: 4415.00 TOTAL: 53.90 MIL CHG:

SALES ITEMS:

Qty	Item number	Unit	Price	
10	REFUEL 4041000001	EA	2.500	25.

Sub-total: 445.

Fuel: 25.

Taxable Sub-total: 0.00

Total: 470.

Direct All Inquiries To:
Hertz Equipment Rental
P.O. Box 26960
Oklahoma City, OK 73126-0390
Telephone: (800) 468-8492

Thank You For Renting From HERTZ Equipment Rental

Charges Are Subject To Final Audit

CUSTOMER IS RESPONSIBLE FOR FUEL, FLATS, AND DAMAG

Carefully read the terms and conditions on reverse side of this page

Actual Invoice Will Be Sen

SPENCER ENVIRONMENTAL

Protecting the Environment

6400 SE 101st Ave. • Portland, Oregon 97266
(503) 788-4612 Fax: (503) 788-4629

INVOICE #: 50086

DATE: Sep 30 99

BILL TO:
FOSS ENVIRONMENTAL
5420 N LAGOON AVE
PORTLAND, OR 97217

LOCATION:
FOSS ENVIRONMENTAL @
PNOCO
7900 NW ST. HELENS RD
PORTLAND OR 97210

CUST #	EMP INT	PO #	DATE OF JOB	JOB #	TERMS NET	DUE DATE	ORDER #
19040	ES		Sep 28 99		30 DAYS	Oct/30/99	67517

LOAD & TRANSPORT (5) 20YD DROP BOXES TO TPS SOIL FACILITY FOR DISPOSAL.
TIM ARCHER WILL MEET YOU ON SITE WITH MANIFESTS.
BOX #'S H-6, H-11, H-14, H-5, & 6469.

0001-00NT-0103-0SHR	TRK TRANSPORT #103 STANDA	9.00 OK	70.00	HR	630.00
0005- REN-0HH2-0SDR	DROP BOX RENTAL (20 YARD	29.00 OK	14.50	DA	420.50
0005- REN-0HH2-0SDR	DROP BOX RENTAL (20 YARD	29.00 OK	14.50	DA	420.50
0005- REN-0HH2-0SDR	DROP BOX RENTAL (20 YARD	29.00 OK	14.50	DA	420.50
0005- REN-0HH2-0SDR	DROP BOX RENTAL (20 YARD	29.00 OK	14.50	DA	420.50
0005- REN-0HH2-0SDR	DROP BOX RENTAL (20 YARD	40.00 OK	14.50	DA	580.00

LAST BOX RENTAL ITEM IS FOR 40 DAYS DUE TO NOT BILLING FOR BOX H-11 ON INVOICE NUMBER 49151

RECEIVED
OCT 8 1999
Ass'd.....

PLEASE REMIT PAYMENT TO:
6400 S.E. 101st AVENUE
PORTLAND, OR. 97266-5142

0.00

2,892.00

PAY THIS AMOUNT →

ORDERED BY: [redacted]
TIM ARCHER

A FINANCIAL CHARGE of 1½% per month may be applied to any Past Due amount. Past Due Accounts may be placed on C.O.D. without notification. If outside collection action is necessary purchaser shall pay all costs of collection including reasonable attorney fees.

ANGELL QUARRY
ANGELL QUARRY

PO BOX 83449
PORTLAND OR 97283 449
(503) 286-4201

MORSE BROS.

CCB #2101 **STATEMENT**

Please Retain this Portion and Remit to:

PO Box 7 Lebanon OR 97355-0007
(541) 451-5141

READY MIX CONCRETE
SAND & GRAVEL
CRUSHED ROCK
HIGHWAY CONSTRUCTION
PRESTRESS CONCRETE

FOSS ENVIRONMENTAL
JOHN H PETERSON
5420 N LAGOON AVE
PORTLAND OR 97217-7638

RECEIVED
OCT 29 1999
Ans'd

Date: 10/25/99

3032400

INVOICE NUMBER	DATE	DESCRIPTION	AMOUNT
0746	10/07/99	INVOICE	274.90
0746	10/07/99	INVOICE	278.58

CURRENT	30 DAYS			AMOUNT
553.48	.00	.00	.00	553.48

PLEASE PAY THIS AMOUNT

TERMS: NET 15TH OF MONTH. A service charge of 1½% per month, or a minimum of $1.00, will be made on the unpaid balance at the end of the following month's billing cycle. This is an ANNUAL PERCENTAGE RATE OF 18%.

NOTICE: See reverse side for important information regarding your rights to dispute billing errors.

II #57 (12/98)

JUN 15'03 4:44 No.002 P.06

ID:

MORSE BROS.

IMPORTANT:

Please return this stub with your remittance to the address below.

PO BOX 7
LEBANON OR 97355-0007

FOR MONTH ENDED 10/25/99
ACCOUNT NO. 3032400-02-20

FOSS ENVIRONMENTAL

To insure proper credit to your account, if you are paying by invoice, please check (√) items paid.

REFERENCE NUMBER	√	DATE	AMOUNT
120746		10/07/99	274.90
120746		10/07/99	278.58

PLEASE PAY THIS AMOUNT 553.48

201

xtension

3.48

Pink—File/Requester
Canary—Accounting
White—Purchasing

Koppers019984

[redacted]

TPS
TECHNOLOGIES INC.

For Questions Call:
(407) 886-9570 x116 or 162
(800) 940-2666
Fax (407) 886-8300

REMIT TO: TPS TECHNOLOGIES, INC.
P.O. BOX 100103
PASADENA, CA 91189-0103

INVOICE NUMBER 005777

TPS JOB: 09-04211

RECEIVED
OCT 18 1999
Ans'd

SOLD TO: FOSS ENVIRONMENTAL
5420 N. Lagoon Avenue
PORTLAND OR 97217

REFERENCE: Pacific Northern Oil Company
7900 NW St Helens Road
Portland OR 97210

Customer PO# P932805

ACCOUNT NO.	SALESPERSON	FACILITY	TERMS	INVOICE DATE
1000459	PH	109	Net 30 Days	10/07/99

CODE	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
		Contact: Tim Archer		
REM	51.88	CONTAMINATED SOIL REMEDIATION	34.00	$1,763.92
			TOTAL:	$1,763.92

A ThermoRetec Company

Thank You

ORIGINAL

United Rentals
4621 NW ST. HELENS RD
PORTLAND, OR 97210-1299
503-796-1235

Formerly Power Rents Inc.

Remit To:
UNITED RENTALS
PO BOX 2533
PORTLAND, OR 97208-2533

RENTAL RETURN INVOICE

** COPY **

Job Site:
FOSS ENVIRONMENTAL/PORTLAND
5420 N LAGOON AVE
PORTLAND, OR 97217

C#: 503-283-1150 J#: 503-283-1150

Customer: 71881
FOSS ENVIRONMENTAL/PORTLAND
5420 N LAGOON AVE
PORTLAND, OR 97217

Invoice #.... 5505748-002
Invoice date 10/08/99
Date out..... 10/06/99 10:00 AM
Date in..... 10/07/99 2:00 PM
Job Loc..... 7900 NW ST HELENS RD,
Job No.....
P.O. #..... P932803
Ordered By.. TIM ARCHER
Written by.. UR268DS
Terms..... Net 30 Days

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	BACKHOE/LOADER 2WD 70HP	245.00	245.00	875.00	2950.00	225.00
	140-1-9 Make: CASE Model: 580L Ser #: JJG0222066					
	HR OUT: 1633.80 HR IN: 1638.40 TOTAL: 4.60					
	140-1-9					
1	BACKHOE BUCKET 24IN	20.00	20.00	80.00	200.00	N/C
	ATTN. TIM ARCHER					
	BACKED CHARGED TO ONE DAY. SORRY WE					
	WERE LATER. THANK YOU, DON					

SALES ITEMS:

Qty	Item number	Unit	Price	
6	DSL	EA	2.000	12.00
	DIESEL			
	PICKUP CHARGE			20.00
	DRUE TO DEL			

RECEIVED
OCT 14 1999
Ans'd.

COPY

PLEASE PAY FROM
THIS COPY

Sub-total: 245.00
Fuel: 12.00
Total: 257.00

OPTIONAL DAMAGE WAIVER: Upon accepting the optional damage waiver, the Customer agrees to pay a charge equal to 12% of the rental charges on Equipment Customer wants covered by the Damage Waiver. In return, United agrees to waive certain claims for accidental damage to such covered Equipment occurring during normal and careful use. ACCIDENTAL DAMAGE WAIVER IS NOT INSURANCE! Customer remains liable for all damages listed under Accidental Damage Waiver provisions in the Terms and Conditions on back page, including Customer's negligence or for Equipment theft.

Customer Accepts [ ]
Customer Declines [ ]

READ BEFORE SIGNING: United hereby leases to Customer the Equipment (as defined in the Terms and Conditions on the reverse side) and Customer hereby accepts all TERMS AND CONDITIONS listed in this rental agreement, including the Terms and Conditions set forth on the reverse side, which the undersigned has read and understands. REMINDERS: (1) Rates do not include fuel or delivery; (2) Optional Damage Waiver charge is 12% of the total rental charge for covered Equipment; (3) Customer pays for all time the Equipment is out, including Saturdays, Sundays and Holidays; (4) This rental agreement supersedes all other purchase orders or terms and conditions contained in any of Customer's agreements or forms; (5) Customer assumes all risk and is responsible for all damages and other costs, including late charges. Details of the above as well as other obligations and responsibilities are contained in the TERMS AND CONDITIONS ON REVERSE. THE INDIVIDUAL SIGNING BELOW AS OR ON BEHALF OF CUSTOMER: (1) AGREES TO ALL OF THE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS RENTAL AGREEMENT; (2) ACKNOWLEDGES RECEIPT OF THE EQUIPMENT IN GOOD WORKING ORDER AND (3) IS FULLY FAMILIAR WITH ITS OPERATION AND USE.

X

Koppers019986

ID: JUN 15'03 4:52 No.003 P.01

United Rentals

4621 NW ST. HELENS RD
PORTLAND, OR 97210-1299
503-796-1235

Formerly Power Rents Inc.

Remit To:
UNITED RENTALS
PO BOX 5293
PORTLAND, OR 97208-5293

Job Site:
FOSS ENVIRONMENTAL/PORTLAND
PACIFIC NORTHERN OIL
7900 NW ST HELENS RD
PORTLAND, OR 97200
C#: 503-283-1150 J#: 503-283-1150

RENTAL RETURN INVOICE

** COPY **

Customer 71881
FOSS ENVIRONMENTAL/PORTLAND
5420 N LAGOON AVE
PORTLAND, OR 97217

Invoice # 5533583-001
Invoice date 10/14/99
Date out 10/07/99 11:00 AM
Date in 10/07/99 2:00 PM
Job Loc PACIFIC NORTHERN OIL
Job No 19 FOSS ENVIRONMENT
P.O. # P932803
Ordered by SHANE
Written by UR268DS
Terms Net 30 Days

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	LOADER LANDSCAPER 4WD 60HP 115-6-13	225.00	225.00	765.00	2300.00	225.00

Make: CASE Model: 570LXT 4X4 Ser #: JJG0225896
HR OUT: 414.60 HR IN: 416.70 TOTAL: 2.10

SALES ITEMS:

Qty	Item number	Unit	Price	Amount
1	EPA ENVIRONMENTAL FEE	EA		N/C
3	DSL DIESEL	EA	2.000	6.00
	DELIVERY CHARGE			20.00
	PICKUP CHARGE CLIFF TO DROP			20.00

COPY

RECEIVED
OCT 6 1999

Sub-total: 265.00
Fuel: 6.00
Total: 271.00

PLEASE PAY FROM THIS COPY

OPTIONAL DAMAGE WAIVER: Upon accepting the optional damage waiver, the Customer agrees to pay a charge equal to 12% of the rental charges on Equipment Customer wants covered by the Damage Waiver. ... DAMAGE WAIVER IS NOT INSURANCE ... ACCIDENTAL ...
Customer Accepts ( )
Customer Declines ( )

READ BEFORE SIGNING: ... ON BEHALF OF CUSTOMER: (1) AGREES TO ALL OF THE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS RENTAL AGREEMENT, (2) ACKNOWLEDGES RECEIPT OF THE EQUIPMENT IN GOOD WORKING ORDER AND (3) IS FULLY FAMILIAR WITH ITS OPERATION AND USE.

X

CUSTOMER SIGNATURE DATE NAME PRINTED DELIVERED BY DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

Hertz

ORIGINAL INVOICE

10/07/99

CUSTOMER NUMBER: 1277360

INVOICE NUMBER: 713501

FOSS ENVIRONMENTAL SERVICE
5420 NORTH LAGOON
PORTLAND CA 99999

PO NUMBER : T932807
JOB NUMBER :
ORDERED BY : SHANE
ORDER DATE : 10/07/99
DELIVERED BY: CUSTOMER
RETURNED BY: CUSTOMER
ORIGINAL RA#:

SHIPPING ADDRESS:	RENTING LOCATION:
PORTLAND HILL CALL COLUMBIA BLVD PORTLAND OR 97218	PORTLAND, OR BRANCH# 9724 PHONE: (503) 287-5789

START DATE/TIME : 10/07/99 08:10
END DATE/TIME : 10/07/99 15:30 RENTAL DAYS: 1.0

RENTAL	50.00
TAXABLE CHARGES	50.00
SALES TAX	0.00
TOTAL CHARGES	50.00

RECEIVED
OCT 19 1999
Ans'd

NET DUE 50.00

PAYMENT TERMS ARE NET 10 DAYS

LATE CHARGES MAY APPLY

FOR CUSTOMER SERVICE AND BILLING INQUIRIES CALL 1-800-456-6492

DIRECT PAYMENT TO:

HERTZ EQUIPMENT RENTAL
P. O. BOX 26390
OKLAHOMA CITY, OK 73126-0390

THANK YOU FOR RENTING FROM HERTZ!

PLEASE PAY THIS AMOUNT: 50.00

QTY	EQUIPMENT DESCRIPTION	DAY	WEEK	4WEEK	RENTAL AMT
01	MULTIQUI MVC90H PLATE COMPACTOR IC#: 075-01-9114 ITEM#: 003407454 SERIAL#: G4630	50.00	145.00	430.00	50.00

Detach at perforation and send bottom portion with payment.

10/07/99

FOSS ENVIRONMENTAL SERVICE
5420 NORTH LAGOON
PORTLAND CA 99999

Customer Number: 1277360
Invoice Number: 713501

PLEASE PAY THIS AMOUNT: 50.00

Form HE0214

Koppers019988

INTEROFFICE

To:	W.E. Swearingen	From:	Amos S. Kamerer
Location:	K-1800	Location:	Portland, OR
Subject:	Tar Spill	Date:	October 31, 1995

This is to confirm the spill of approximately 750 gals. of K-364 tar on Thursday, October 26, 1995, at about 3:45pm.

We were making a batch of K-1535 tar in tank car KPCX 502, which entails the blending of K-364 tar and light uncorrected distillate. After transferring the K-364 tar to the tank car, a circulation pump was engaged to circulate the material in the car. There is another line off of this pump, operated by a ball valve, that has about 100' of flex hose's attached to it, to be used when making transfers to a second car. Apparently the ball valve arm had been bumped and was slightly opened. Thus small amounts of the K-364 was being pumped into the line while also circulating into the car, without notice. It was about 15 minutes before the leak was observed.

Because the material was about 250° F at the time, it was very difficult to attempt to clean up. Absorbent pads and sand were used to stop the spread of the material, and ultimately we put cold water on it for cooling purpose and the clean up process commenced.

The disposal of this non hazardous waste was made thru Sanifill Northwest, Inc., Hillsboro, Or. where we have a special waste permit for the disposal of our tar and pitch debris. Fortunately no one was injured and other than the obvious items like the lost product, cleanup materials, labor costs and disposal costs, no further loss was incurred. Also, I can't begin to tell you how glad I am that this area was paved. These kinds of problem on unpaved areas would increase the cost ten fold or more.

Last, to prevent this from happening again I have instituted a new policy that makes it mandatory that the secondary line, off of this pump, is to be disconnected and capped when not in use.

Amos

Amos S. Kamerer

cc: W.W. Turner

9-24-90

KOPPERS

7540 N.W. St. Helens Rd.
Portland, Oregon 97210
(503) 286-3681

PRODUCT SAFETY
SEP 27 1990

Bill, The Refined Tar spill was Completly removed to Astoria on 9-24-90. 1st Truck on 9-21-90. 2nd Truck loaded and out 9-24-90
Copies of Manifest are attached for your records

J.A. Oxford

JOHN A. OXFORD

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. 0 A D 0 2 7 7 3 4 3 5 9 — Manifest Document No. 9 2 1 9 0
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 N.W. ST HELENS RD PORTLAND OR
4. Generator's Phone 503 [illegible] 97210

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: GRESHAM TRANSFER
6. US EPA ID Number: 0 A D 0 5 0 9 7 3 4 3 7
C. State Transporter's ID
D. Transporter's Phone [illegible]

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: O R D 0 8 9 4 5 2 3 5 3
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/ Waste No.
a. NOT REGULATED BY HAZ CFR	001	DT	20	Y	X
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a.
b.
c.
d.

WPS			Handling Code		
			Cu. Yd.		
Area	S	D	Q	PR	Lbs.
					Gal.

15. Special Handling Instructions and Additional Information **Waste Profile Sheet Number(s)** K46457
a.
b.
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	Signature	Month Day Year
JOHN A OXFORD	John A Oxford	09 21 90

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Roy Jack Rooney	Roy Jack Rooney	09 21 90

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

Koppers019991

CO BINED NIFORM STRAIC T BILL LADIN AND F EIGHT E LL ORIGINAL • N T NEG ABLE

CRESHAM TRANSFER INC.
P.O. BOX 30689
PORTLAND, OR 97230

Portland Bulk Dispatch 503-255-7902 Fax: 503-255-9245
Portland Heavy Haul Dispatch 503-255-7904 Fax: 503-257-9028
Portland Nationwide WATS 800-727-7900

Seattle 206-878-7980
Seattle Fax: 206-878-0229
Seattle Nationwide WATS 800-727-7980

RECEIVE, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

	DATE	TRUCK #	TRAILER #		P.O. #
10-081775	09/21/90	18-284	09-190	17-283	

SHIPPER	CHEMICAL WASTE MANAGEMENT, NW.	CITY & STATE: ARLINGTON OR	SHIPPER B.L. #: 92190
CONSIGNEE	KOPPERS INC	CITY & STATE: PORTLAND OR	ROUTE CODE: 2
BILL TO CODE: CHEARL	BILL TO NAME: CHEMICAL WASTE MANAGEMENT, NW.	CITY & STATE: ARLINGTON OR	C.O.D.: $ .00

COMMODITY CODE	NO. SHIPPING UNITS	KIND OF PACKAGING, DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	NET WEIGHT (Subject to Correction)	RATE	CHARGES
138	1.00	CONTAMINATED SOIL			
		Gross Tare Net 41600			

SHIPPER SIGNATURE: J a O'Hard	LOADING DRIVER: Roy Jack Rooney		PILOT CARS: ONE ◯ TWO ◯	
	DATE: 9/21/90	TIME ARRIVED: 0800	STARTED LOADING: 0900	TIME LEFT: 1030
CONSIGNEE SIGNATURE: RECEIVED ABOVE FREIGHT IN GOOD ORDER.	UNLOADING DRIVER: Roy Jack Rooney		PILOT CARS: ONE ◯ TWO ◯	
	DATE: 9/21/90	TIME ARRIVED	STARTED UNLOADING	TIME LEFT

SHIPPER

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. ORD 0 27 7 34 3 59 — Manifest Document No. 92 4 90
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 OR 97210

4. Generator's Phone (503) 286-3681

5. Transporter 1 Company Name: CHEM-SECURITY SYSTEMS
6. US EPA ID Number: ORD 0 69 4 5 2 3 5 3

7. Transporter 2 Company Name:
8. US EPA ID Number:

9. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT OF THE NORTHWEST INC.
~~Chem-Security Systems, Inc.~~
Star Route
Arlington, Oregon 97812
10. US EPA ID Number: ORD 0 8 9 4 5 2 3 5 3

A. State Manifest Document Number:
B. State Generator's ID:
C. State Transporter's ID:
D. Transporter's Phone: 503-454-2643
E. State Transporter's ID:
F. Transporter's Phone:
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. NOT REGULATED BY 49 CFR	001	DT	20	Y	X004
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above — K. WPS — Handling Code: Cu. Yd. / Area / S / D / Q / PR / Lbs / Gal

a.
b.
c.
d.

15. Special Handling Instructions and Additional Information — Waste Profile Sheet Number(s)
a.
b. K46457
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: 0 92 4 90

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: FREY MARRETT — Signature: [signature] — Month Day Year: 0 92 4 90

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:

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

GENERATORS COPY

KOPPERS INDUSTRIES

INTEROFFICE CORRESPONDENCE

& PRODUCT SAFETY
AUG 06 1990

To: WM SWEARINGEN

Location: K-1800

From: JOHN A OXFORD

Location: N.W. PLANT

Date: 8-3-90

Subject: PACIFIC NORTHERN OIL SPILL ON TRK # 4 KOPPERS LEASED PROPERTY

EXPLANATIONS OF PHOTOS #1 THRU # 31 SEE BACK OF PHOTOS.

1.) TRACK #4 LEASED TO NORTHERN OIL FROM S.E. TO N.E.
2.) SECOND CAR IN STRING FROM S.E. TO N.E.
3.) CLOSEUP OF SPILLED #6 BUNKER FUEL OIL.
4.) THIRD CAR IN STRING FROM S.E. TO N.E.
5.) CLOSEUP OF OIL UNDERNEATH , 3RD CAR IN STRING.
6.) THIS IS THE CAR THAT LEAKED. Material LOADED IN THE CAR WITH PARTIALLY OPEN INSIDE VALVE AND NO OUTSIDE VALVE ONLY A SCREW ON CAP.
7.) SAME AS PHOTO # 6 DIFFERENT ANGLE.
8.) FENCE LINE AT N.E. CORNER OF PROPERTY FIFTH CAR IN STRING.
9.) EAST SIDE OF TRACK 5TH CAR IN STRING.
10.) DEPICTS OIL THAT RAN TO WEST SIDE OF CAR AND ON OLD KOPPERS LEACH FIELD.
11.) OIL RUNNING ON TO KOPPERS LEACH FIELD.
12.) EXTENT OF OIL RUN OFF ON EAST SIDE OF TRACK #4.
13.) OIL THAT ACTUALLY ENTERED KOPPERS LEACH FIELD.
14.) SAME AS #13
15.) PICTURE IN THIRD CAR IN STRING TAKEN FROM EASE SIDE OF TRACK.
16.) CLOSEUP OF #15.
17.) EAST SIDE OF TRACK SHOWING OIL RUN OFF AT VARIOUS SPOTS LOOKING N.E. TO S.E.
18.) EAST SIDE OF TRACK AT THIRD UNLOADING SPOT.
19.) CLOSEUP OF PHOTO 18 N.END OF CAR.
20.) EAST SIDE OF TRACK FIFTH UNLOADING SPOT AT N.E. END OF TRACK NOTE GREEN FIGURE UNDER LADDER OF TANK CAR.
21.) THIS IS THE GREEN FIGURE UNDER TANK CAR IN PREVIOUS PICTURE, YES IT IS A PERSON.
22.) EAST SIDE OF TRACK AT N.E. FENCE LINE NOTE GREEN FIGURE NOW UNDER WHEEL OF TANK CAR.
23.) WIDER ANGLE OF PHOTO #22.
24.) DIFFERENT ANGLE OF PHOTO #23.
25.) CLOSEUP OF PHOTO #23.
26.) PHOTO FROM FENCE LOOKING BACK AT FIFTH UNLOADING SPOT.
27.) TRACK #4 LOOKING NE. TO SE.
28.) EAST SIDE OF TRACK N.E. END 5TH UNLOADING SPOT.
29.) AREA UNDER TANK CAR WHERE DISCHARGE OCCURRED.
30.) SAME AS 29
31.) WEST SIDE OF TRACK LOOKING SE. TO N.E. RIEDEL VACUMN TRUCK.

DISTRIBUTATION:
2-SETS W. SWEARINGEN
1-SET L. FLAHERTY
1 SET PLANT FILE
1_SET R. WIXOM - OREGON DEPT

Spill occurred on July 23 1990 in am!
DEQ (Wixom)

8/20/90
Notes

- KII plant property only partially clean
  got close to wells
- Status 8/20/90 — Wixom keeps after Pacific Northern!
  Oxford says ~~that~~ Wixom agrees ~~that~~ KII property should
  be cleaned up better!

KOPPERS INDUSTRIES

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

Telephone: (503) 286-3681
FAX: (503) 285-2831

May 26, 1989

Mr. Bruce Henderson
N.W. Region D.E.Q.
811 S.W. 6th Ave
Portland, Oregon 97204

Dear Sir:

This letter is to confirm our telephone conversation of May 23, 1989, at which time I informed you that a spill of Coal Tar Creosote of approximately 5-10 gallons occurred at McCormick & Baxter Creosoting Company on the Edgewater Boulevard, Portland, Oregon. This discharge occurred while our truck was delivering a load of Creosote to this customer. The driver had cleared his pumping hose with air pressure and thought the hose was empty and clear. In reality the hose was not empty, and when the driver disconnected the hose from the truck Creosote Oil spilled on to the ground. This happened at approximately 11 AM on May 23, 1989.

As Plant Manager, I dispatched three employees to clean up the spill at McCormick & Baxter's. The material was absorbed and the contaminated soil was put in one 55 gallon drum that is approved for Hazardous Waste. This waste will be disposed of under manifest and in accordance with the law. Please be advised, that the National Response Center was contacted by this writer at 11:25 AM, May 23, 1989 and their Mr. Mackey assigned #7964 to this incident. I then contacted Ms. Claudia Anderson at the Oregon Emergency Response Center at 11:36 AM and she assigned #89-485 to this incident.

Thank you for your concern in this matter and should any further information be needed by your office please feel free to call.

Sincerely,

John A. Oxford
Plant Manager

CC: T Kosmolski McCormick & Baxter
CC: L. Flaherty K-1750
J Batchelder K-1701
W. Swearingen K-1700

KEYSTONE
ENVIRONMENTAL RESOURCES, INC.

Phone: 412/825-9600 3000 Tech Center Dr., Monroeville, PA 15146 Fax: 412/825-9699

May 31, 1989

Mr. Jack Stephenson
Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219

RE: Waste Disposal Authorization
Northwest Terminal

Dear Jack:

Please find attached the following documents which are needed to authorize the disposal of the spill material at the Northwest Terminal.

1. **Chemical Waste Management, Inc. Waste Profile**

   The information is based upon data from previous analyses. Please have the certification at the bottom of the form completed by you or Bill Swearingen.

2. **Letter to John Oxford Concerning Sampling**

   Forward to John Oxford for sampling and completion of information prior to submitting to Chemical Security Systems, Inc.

3. **Land Ban Exemption Demonstration**

   This document is similar to one's previously submitted and has been prepared for J. R. Batchelder's signature. Copies should be distributed as in the past.

4. **Chem Security Systems, Inc. Cover Letter**

   The letter has been prepared for your signature.

Items #1, 2 & 4 and a copy of #3 should be sent to John Oxford for forwarding to Chem Security Systems, Inc. along with the sample.

If I can provide you with further information, please let me know.

Very truly yours,

Jordan M. Dern
Senior Project Manager

JMD:dac
Attachments
cc: W. Swearingen

Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

J09414

J 09414
Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

A. GENERAL INFORMATION

1. Generator Name: Koppers Industries, Inc.
2. Generator USEPA ID: O R D 0 2 7 7 3 4 3 5 9
3. Facility Address: 7540 NW St. Helens Road
4. Generator State ID: _____

Portland, OR 97229
5. Zip Code: 97229

6. Technical Contact: W. E. Swearingen 7. Title: Env. Program Mgr. 8. Phone: (304) 527 - 0110

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO

1. ☐ Generating Facility (A, above), or
2. Company Name: _____ 3. Phone: ( ) _____ - _____
4. Address: _____

_____
5. Zip Code: _____

C.

1. NAME OF WASTE Creosote spill cleanup
2. PROCESS GENERATING WASTE Spill
3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
   ☐ Yes ☒ No If yes, **DO NOT COMPLETE** this form. Contact your Chemical Waste Management, Inc. sales representative for assistance.

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
discolored soil	☐ No ☐ Yes If known, describe: creosote	☒ Solid ☐ Semi-Solid ☐ Liquid ☐ Powder Other: _____	☐ Multilayered ☐ Bi-layered ☒ Single Phased	Range: 1.3 - 1.4	☐ Yes ☒ No Volume: _____ %

7. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☒ 7 ☐ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range _____ - _____ ☐ NA

8. Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☐ 100-139°F ☒ 140-199°F ☐ ≥ 200°F ☐ None ☒ Closed Cup ☐ Open Cup
for pure creosote

E. CHEMICAL COMPOSITION

1.	RANGE MIN. - MAX.	
Creosote	5 - 20	%
Soil	80 - 95	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: _____ %

2. Indicate if this waste contains any of the following:

	NONE	or	LESS THAN	or	ACTUAL
PCB's	☒		☐ < 50 ppm		_____ ppm
Cyanides	☒		☐ < 50 ppm		_____ ppm
Phenolics	☐		☐ < 50 ppm		3,000 ppm
Sulfides	☐		☐ < 50 ppm		2 ppm

F. METALS Indicate if this waste contains any of the following:

1. ☐ EP TOX/TCLP or 2. ☒ Total

METAL	LESS THAN	or	ACTUAL (Parts Per Million)
Arsenic	☐ < 5	☐ < 500	0.22
Barium	☐ < 100		2.2
Cadmium	☐ < 1	☐ < 100	0.09
Chromium	☐ < 5		0.43
Lead	☐ < 5	☐ < 500	0.19
Mercury	☐ < 0.2	☐ < 20	<0.005
Selenium	☐ < 1	☐ < 100	0.11
Silver	☐ < 5		0.13
Chromium-Hex	☐ < 5	☐ < 500	NA
Copper	☐ < 5		2.8
Nickel	☐ < 5	☐ < 134	24
Thallium	☐ < 5	☐ < 130	NA
Zinc	☐ < 5		20
_____	☐ <		_____
_____	☐ <		_____
_____	☐ <		_____

TURN PAGE AND COMPLETE SIDE 2
Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

[ ] J 09414
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☐ Yes ☒ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☐ Yes ☒ No
3. Indicate if this waste is any of the following:
   - ☐ RCRA Reactive
   - ☐ Water Reactive
   - ☐ Explosive
   - ☐ Shock Sensitive
   - ☐ Pyrophoric
   - ☐ Radioactive
   - ☐ Etiological
   - ☐ Pesticide Manufacturing Waste
   - ☐ Other _____
   - ☒ None of the above

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION NA

	LESS THAN or	ACTUAL
Beryllium	☐ < 5000 ppm	_____ ppm
Potassium	☐ < 5000 ppm	_____ ppm
Sodium	☐ < 5000 ppm	_____ ppm
Total Bromine	☐ < 2 %	_____ %
Total Chlorine	☐ < 35 %	_____ %
Total Fluorine	☐ < 1 %	_____ %
Total Sulfur		_____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available. NA

Range

1. Heat Value (BTU/lb): _____ - _____ 2. Water: _____ %
3. Viscosity (cps): _____ @ ☐ _____ °F ☐ 100°F ☐ 150°F
4. Ash: _____ % 5. Settleable solids: _____ %
6. Vapor Pressure @ STP (mm/Hg): _____
7. Is this waste a pumpable liquid? ☐ Yes ☐ No
   Type of pump? _____
8. Can this waste be heated to improve flow? ☐ Yes ☐ No
9. Is this waste soluble in water? ☐ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☐ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☒ Yes ☐ No 2. Anticipated Annual Volume/Units: 4,000 / lbs
3. Proper Shipping Name: Hazardous waste, NOS
4. Hazard Class: ORM-E 5. I.D. #: NA 9189
6. Additional Description: (_____)
7. Method of Shipment: ☐ Bulk Liquid ☐ Bulk Solid ☒ Drum (Type/Size): 17E / 55 Other: _____
8. CERCLA Reportable Quantity (RQ): 1 9. RQ Units (lb/kg): lb
10. USEPA Hazardous Waste? ☒ Yes ☐ No 11. USEPA Hazardous Waste Number(s): U051
12. State Hazardous Waste? ☐ Yes ☒ No 13. State Hazardous Waste Number(s): _____

K. SPECIAL HANDLING INFORMATION _____

☐ Additional Page(s) Attached

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession of the generator has been disclosed.

1. _____ Signature
2. _____ Title
3. _____ Name (Type or Print)
4. _____ Date

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

(16)

SPILL/RELEASE REPORT

1 - GENERAL INFORMATION

OERS No. 98-0227

a. Company/Individual Name: Koppers Industries, Inc.

b. Address: 7540 NW St Helens Road
Portland, OR 97210

c. Company Contact Person: Amos Kamerer

d. Phone Number(s): (503) 286-3681

e. Specific on-site location of the release (and address if different from above):
Area around tank #68

Please provide a map of the site showing area(s) where the release occurred, any sample collection locations, location of roads/ditches/surface water bodies, etc.

2 - RELEASE INFORMATION

a. Date/Time Release started: estimated 1:05pm Date/Time stopped: 1:15pm

b. Release was reported to (specify Date/Time/Name of Person contacted where applicable):
ODEQ
OERS 1/28/98, 5:50pm, Tami
NRC 1/28/98, 5:40pm, Miss Ebner
(1)Other (describe): Portland Fire Bureau, Station #22, Bill Henle, 1/28/98, 1:30pm

c. Person(s) reporting release: Amos Kamerer

d. Name, quantity and physical state (gas, liquid, solid or semi-solid) of material(s) released:
coal tar pitch, liquid

Please attach copies of material safety data sheets (MSDS) for released material(s).

e. The release affected: ___Air ___Groundwater ___Surface Water ___Soil _X_Sediment

f. Name and distance to nearest surface water body(s), even if unaffected (include locations of creeks, streams, rivers and ditches that discharge to surface water on maps):
Willamette River, about 2,000 feet to the north

Has the release reached the surface water identified above?: ___Yes _X_No
Could the release potentially reach the surface water identified above? ___Yes _X_No
Explain: Coal tar pitch solidifies as hard as coal at ambient temperatures, when contained and cooled, we picked it up and recycled it.

g. Depth to nearest aquifer/groundwater: unknown
Is nearest aquifer/groundwater potable (drinkable)? ___Yes _X_No
Has the release reached the nearest aquifer/groundwater? ___Yes _X_No
Explain: Material solidifies when cooled and is not water soluable.

(1) City of Portland, Environmental Services, Steve Rosenberger, John Holtrop, 1/28/98, 1:30pm

h. Release or potential release to the air occurred? ___Yes _X_No
Explain:

i. Was there a threat to public safety? ___Yes _x_No
j. Is there potential for future releases? ___Yes _X_No
Explain: Similar event is possible, but unlikely.

k. Describe other effects/impacts from release (emergency evacuation, fish kills, etc.):
Insignificant environmental impact.

l. Describe how the release occurred. Include details such as the release source, cause, contributing weather factors, activities occurring prior to or during the release, dates and times of various activities, first responders involved in containment activities, etc.:
While transferring molten pitch to our shipping tank, T-68, the tank over flowed due to the mechanical failure of the gauging device. All spilled material was contained on site. 100% was recovered. 99% was recycled, and 1% was disposed of as a non-hazardous material. A passer by called 911 and the Portland Fire Bureau station #22 responded at about 1:30pm, saw that we had the material contained, and then departed.

3 - SITE INFORMATION

a. Adjacent land uses include (check all that apply and depict on site maps):
___Residential ___Commercial ___Light Industrial _X_Heavy Industrial
___Agricultural ___Other (describe):
b. What is the population density surrounding the site: light
c. Is the site and/or release area secured by fencing or other means? _X_Yes ___No
d. Soil types (check all that apply): ___alluvial ___bedrock _x_clay _x_sandy
___silt ___silty loam _X_artificial surface (cement/asphalt/etc.)
e. Describe site topography: Flat

(18)

5 - SAMPLING INFORMATION

Attach copies of all sample data and indicate locations of sample collection on maps.

a. Were samples of contaminated soil collected? ___Yes ___No _x_ N/A
b. Were samples of contaminated water collected? ___Yes ___No _x_ N/A
c. Were samples collected to show that all contamination had been removed?
___Yes ___No _x_ N/A
d. Describe sampling activities, results and discuss rationale for sampling methods:

6 - SPILL REPORT CHECKLIST

To ensure that you have gathered all the information requested by the Department in this Spill/Release Report, please complete the following checklist:

_X_ Map(s) of the site showing buildings, roads, surface water bodies, ditches, waterways, point of the release, extent of contamination, areas of excavation and sample collection locations attached.

_X_ Material Safety Data Sheet (MSDS) for released material(s) attached.

_N/A_ Sampling data/analytical results attached.

_N/A_ Receipts/manifests (if any) for disposal of cleanup materials attached.

_N/A_ Contractor reports (if any) attached.

(19)

4 - CLEANUP INFORMATION

a. Was site cleanup performed? X Yes ___ No
If No, explain: _____

b. Who performed the site cleanup?
Company Name: Koppers Industries, Inc.
Address: 7540 NW St Helens Road
Portland, OR 97210
Cleanup Supervisor: T.J. Turner
Phone Number(s): (503) 286-3681

c. Has all contamination been removed from the site? ___ Yes X No
If No, explain: This material has been collected and is being held in a secure area, to be properly land fill disposed of, in the future.

d. Estimated volume of contaminated soil removed: less than 100 pounds

e. Estimated volume of contaminated soil left in place: 0

f. Was a hazardous waste determination made for cleanup materials? ___ Yes X No

g. Based on the determination, are the cleanup materials hazardous wastes?
___ Yes X No If Yes, list all waste codes: _____

h. Was contaminated soil or water disposed of at an off-site location? ___ Yes X No
If yes, attach copies of receipts/manifests/etc., and provide the following information:
Facility Name: _____
Address: _____
_____
Facility Contact: _____
Phone Number(s): _____

i. Is contaminated soil or water being stored and/or treated on-site? X Yes ___ No
If yes, please describe the material(s), storage and/or treatment area, and methods utilized (attach additional sheets if necessary):
This material has been collected and is being held in a secure area, to be properly land fill disposed of, in the future.

j. Describe cleanup activities including what actions were taken, dates and times actions were initiated and completed, volumes of contaminated materials that were removed, etc. (attach additional sheets or contractor reports if necessary or more convenient):
After the pitch cooled and solidified, it was picked up with shovels and front end loaders for recycling back into our process. The calculated spillage was 6.985 tons. All of this was cleaned up and recycled with in 7 working days.

Environmental Incident Report
October 22,/2003 MV Osprey Arrow

Koppers020004

Pacific Terminal Services, Inc.
Incident Report

Title: Portland Spill 10-22-03

Date & Time of Incident: 10-22-03, 0100 PST

Facility / Area Affected: Dock Date & Time Notification: 10-22-03, 0300 PST

Incident Cost: $0 Lost Production: $0

1. **Incident Summary:** On October 22, 2003, at approximately 0100 hours about 1 to 2 gallons of liquid pitch was spilled into the Willamette River at the Portland Terminal while concluding a transfer from the vessel Osprey Arrow to the Koppers Terminal. The Operator noticed product leaking from the flange at the end of the hose when the ship returned the hose to the terminal. The Operator noticed that the flange was not adequately secured prior to returning the hose to the terminal. The Operators investigated the water from the spill response boat and found no sign of the pitch.
2. **Initial Conditions:** The weather was clear with no wind.
3. **Initiating Event:** One bolt on the blind was missing and others were not tightened properly.
4. **Immediate Corrective Actions:** The blind was properly bolted to the hose flange.
5. **Causes & Corrective Actions:** (Cause 1) The ship's crew did not adequately secure the blind to the hose flange. Only three bolts were used instead of the required four.
(Corrective Action 1) The ship has been advised of the importance of installing the required number of bolts and properly bolting the blind to the hose flange. In addition, in the future operators will verify the blind has been bolted securely to the hose flange prior to receiving the hose from the ship. Koppers is also reviewing their loading procedures and we will incorporate their modifications.
6. **Investigator(s):** Troy Goodman, Pacific Terminal Services, Inc.
7. **Distribution:** All PTSI employees.

Form

Environmental Incident Report
(to be used with K-SHE-014)

Koppers Inc.
Form No. K-FORM-SHE-003
Effective Date: 09/22/03
Revision No: 3
Page 1 of 3

Facility: Northwest Terminal, Portland, OR

Date and time of Incident: 10/22/2003 1:30 AM

FOR REPORTING PURPOSES ONLY- THIS WAS A NON KOPPERS RELEASE.

INCIDENT

Note: Immediately make notifications to NRC, State, Local and Koppers (as applicable)

Type of Incident (check all that apply):

- ☒ Spill, leak or unpermitted release of oil or hazardous material to the air, ground or waterway (reportable
- ☐ Spill or leak of a liquid or solid that is contained on process pad or by other secondary containment (Non-Reportable)
- ☐ Permit limit exceedance or circumstance where specified conditions in a permit were not maintained
- ☐ Complaints of any kind (e.g. odor, noise, et al)
- ☐ Notice of Violation/Letter of Noncompliance/ Agency Action, etc.
- ☐ Other – Noncompliance with any legal requirement, malfunction of a pollution control device or monitor, etc. (Explain below)

Location of Incident:

Gasco Dock portion of the Northwest Terminal operation.

Description of Incident:

After the Koppers liquid pitch unloading hose had been disconnected from the Gasco dock manifold and from the MV Osprey Arrow vessel manifold, the hose was being lowered down to the Koppers unloading hose storage rack at the Gasco dock. The MV osprey Arrow crew had not adiquately tightened the blind flange to the end of the hose. One bolt was missing, one bolt was only hand tightened, leaving an open gap on one side of the flange that was approximately 5/8 " wide. An estimated 1 to 2 gallons of liquid pitch spilled into the Willamette River during this action.

Materials Involved:

Material/Constituent	Quantity Released	RQ	Exceeded RQ?	Media Affected (soil, water, air)
Liquid Coal Tar Pitch/benzo(a)pyrene	from 1 to 2 gallons	7 gals.	No	Water

Notification Log:

Agency	Phone No.	Date	Time	Name of Contact	Notes
NRC					PTSI, Koppers contractor for the dock operations made the notifications, report to follow.
USCG - MSO					Same
Oregon RC					Same

Assessment of Actual or potential hazards to human health or the environment:
None. Picth solidifies when coming in contact with water and fell to the bottom of the river. The USCG has indicated to Gearbulk's agent that according to them, this was a non-reportable incident. We will have to wait for an opinion from ODEQ.

INVESTIGATION

Acts or conditions causing incident (root cause):
Improper blind flange application to the end of the unloading hose by the vessle's crew.

CORRECTIVE ACTION

Containment and Cleanup actions:
None, at this time. Will wait for further opinion by ODEQ.

Disposition of recovered material:

Material	Quantity	Disposal or Storage Location
N/A		

Corrective action (describe what has been done or will be done to prevent recurrence:
Revise the unloading operating procedure to include the inspection of the connected blind flange on the vessel end of the unloading hose by PTSI personnel prior to the transfer of the unloading hose, down to the dock side storage rack. Also, that 4 bolts, at 90 degree angles to one another, and the 2 eyelet bolts used for the cable connection, must all be used and then wrench tightened.

ADDITIONAL INFORMATION/RECOMMENDATIONS:

AGENCY CONTACT DUE TO THIS INCIDENT (Agency Inspector, Person issuing NOV):

(Include date, time, name, title, agency and summary of inspection/visit:

None

Please sign here to indicate that you have reviewed your plant's SPCC Plan and updated it with any required information.

Name: Date:

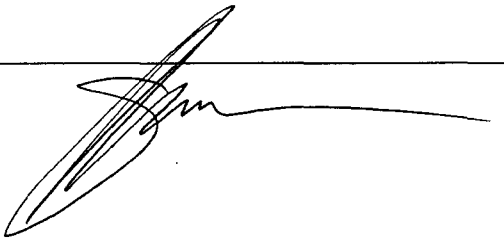
Attach photographs (if available) which show the incident area before, and after response action. Mark date and time of each photo.

Photos: 0

Report completed by:Amos S. Kamerer

Title:Plant Manager

Date: 10/23/2003



PLEASE FAX OR EMAIL THIS FORM TO THE KOPPERS ENVIRONMENTAL DEPARTMENT

KOPPERS

7540 N.W. St. Helens Rd.
Portland, Oregon 97210
(503) 286-3681

TJ ?

Gasket ?

TROY

Report.

Coast guard

State

National

Responsible party

CALL

Not determined !

NAT Resp.

Pt MSO - CG

Ouge passed to DEQ

~~Take picture of hose end~~

~~Scott / do~~

~~Step ladder~~

TJ

Notify TRANSMARINE Agent in the future

~~5:06 AM Jim / cell~~

~~6:09 " Traci~~

~~[illegible]-3864~~

~~J.M. 412 - 897 - 8408~~

AMOS S. KAMERER

KOPPERS
7540 N.W. St. Helens Rd.
Portland, Oregon 97210
(503) 286-3681

Andrisvic

Master OSP
Called

AMOS S. KAMERER

Kamerer Amos

From: Kamerer Amos
Sent: Wednesday, October 22, 2003 2:33 AM
To: Stephen Brown (srb@gearbulk.com)
Cc: Logan Wood (lhw@gearbulk.com); Dietz Jim; Plovic Wayne
Subject: FW: Liquid Pitch Discharge MV Osprey Arrow

Stephen,

The info below is self explanatory. We need to discuss at your earliest convience.

Thanks,

Amos

-----Original Message-----
From: Kamerer Amos
Sent: Wednesday, October 22, 2003 2:29 AM
To: Dietz Jim
Cc: Fitzgerald Kevin; Self Traci; Marcinowski John; Hyde Leslie; Collins Randall
Subject: Liquid Pitch Discharge MV Osprey Arrow

Jim,

We had a spill of from 1 to 2 gallons of liquid pitch into the Willamette River this morning at approx. 0130 hours.

Gearbulk did not adequately tighten the blind flange on the vessel end of the discharge hose and during the disconnecting portion of
the operation, pitch leaked out of that end of the hose and into the river. This end of the hose, is the end that has the control cable
attached to it. It has two regular bolts and two eyelet bolts, where one of these eyelet bolts has the control cable attached to it.
During the return of the hose from the vessel to the storage rack on our dock, it had the 2 eyelet bolts and only one regular bolt,
one regular bolt was missing and the bolts were not fully tightened. I talked to the Officer in charge on the vessel, from the dock,
as the gangway had already been removed, he assured me that all of the bolts had been properly tightened. I explained to him
that this could not have been the case and why would we now have this problem for the first time since we have been doing these
discharges, starting in December of 1999. He had no explanation for the missing bolt. I also explained that I would be reporting this to
Stephen Brown, Operations Manager for Gearbulk Shipping, Vancouver, BC.

I called Traci to verify, that according to K-SHE-014, any quantity of material spilled into the river, regardless of the RQ, was reportable.
I so notified PTSI, our contractor for the tanker man services on the dock. They called their President, Troy Goodman and he will be
making the proper notifications to the various agencies, accordingly.

I will get started on the Incident Report tomorrow.

Amos Kamerer
Phone: 503-286-3681
Fax: 503-285-2831
kamereras@koppers.com

Kamerer Amos

From: Kamerer Amos
Sent: Thursday, October 23, 2003 9:32 AM
To: Dietz Jim
Cc: Fitzgerald Kevin; Self Traci; Hyde Leslie; Marcinowski John; Plovic Wayne; Turner TJ
Subject: RE: OSP145 - OSPREY ARROW MINOR PITCH SPILLAGE

Jim,

Troy Goodman, PTSI, stopped in for a quick visit this morning and advised that he did get a call from ODEQ yesterday on the pitch spill. After he explained the incident and the nature of liquid pitch, she said that she did not think this required any further follow up
by ODEQ, however, she would be passing on the report to the ODEQ Spill Coordinator, who my have a different opinion, but unlikely.

Troy will include all of this in his final incident report.

Amos

-----Original Message-----
From: Dietz Jim
Sent: Wednesday, October 22, 2003 12:34 PM
To: Kamerer Amos
Cc: Fitzgerald Kevin; Self Traci; Hyde Leslie; Marcinowski John; Plovic Wayne; Turner TJ; Troy Goodman (troyg@fammpnw.com)
Subject: RE: OSP145 - OSPREY ARROW MINOR PITCH SPILLAGE

All,

Let's keep in mind that even though the USCG is not pursuing further action, ODEQ may still do so.

Jim

-----Original Message-----
From: Kamerer Amos
Sent: Wednesday, October 22, 2003 2:42 PM
To: Dietz Jim
Cc: Fitzgerald Kevin; Self Traci; Hyde Leslie; Marcinowski John; Plovic Wayne; Turner TJ; Troy Goodman (troyg@fammpnw.com)
Subject: FW: OSP145 - OSPREY ARROW MINOR PITCH SPILLAGE

Jim,

FYI.

Amos

-----Original Message-----
From: srb@gearbulk.com [mailto:srb@gearbulk.com]
Sent: Wednesday, October 22, 2003 11:38 AM
To: Kamerer Amos
Cc: ospmail@kgjs.no; mrg@kgjs.no; hh@kgjs.no; lhw@gearbulk.com; srf@kgjs.no; ndk@gearbulk.com
Subject: OSP145 - OSPREY ARROW MINOR PITCH SPILLAGE

Amos, further to our telecon just now pls find confirmation from Transmarine that USCG has no intent to persue this incident further.

Thanks as always for the great cooperation and prompt despatch of the vessel.

brgds
Stephen

Stephen Brown
Sr. Operations Manager
PHONE [604.647.2107]
www.gearbulk.com

----- Forwarded by Stephen Brown/VAN/GEARBULK on 10/22/2003 11:31 AM -----

"Sandra Avila" <portland@transmarine.com>
10/22/2003 10:59 AM

To: <srb@gearbulk.com>, <lhw@gearbulk.com>, <ospmail@kgjs.no>
cc: "Sandra Avila" <portland@transmarine.com>
Subject: osprey arrow

Categorisation Trade: Vslvoy: OSP145GB Port: Cust: Dept:

Good Morning.

I wanted to put everyones mind at ease.

I spoke with the local USCG Petty Officer Turman, he advised that this was a non-reportable incidecent. So as far as requiring the vessel to do any reporting, its no problem. I understand that the terminal made calls to national response center, but this is the policy that any material spilled is reported.

We do not expect any problems with the USCG.

I understand that Amos of Koppers will be making a report, and has taken pics. I have requested a copy of report.

Best Regards
Sandra Avila
Transmarine Portland
1200 N.W. Naito Parkway, Suite 390
Portland, Oregon 97209
Phone: (503) 242-3864
Fax: (503) 241-4075
email: portland@transmarine.com
STRICTLY CONFIDENTIAL:
The contents of this email and any attachments are strictly confidential and they may not be used or disclosed by someone who is not named a recipient. If you have received this email in error please notify the sender by replying to this email inserting the word 'misdirected' in the subject line.

please reply to: portland@transmarine.com

Kamerer Amos

From: srb@gearbulk.com
Sent: Wednesday, October 22, 2003 11:38 AM
To: Kamerer Amos
Cc: ospmail@kgjs.no; mrg@kgjs.no; hh@kgjs.no; lhw@gearbulk.com; srf@kgjs.no; ndk@gearbulk.com
Subject: OSP145 - OSPREY ARROW MINOR PITCH SPILLAGE

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PHONE [604.647.2107]
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"Sandra Avila" <portland@transmarine.com> 10/22/2003 10:59 AM

To: <srb@gearbulk.com>, <lhw@gearbulk.com>, <ospmail@kgjs.no>
cc: "Sandra Avila" <portland@transmarine.com>
Subject: osprey arrow

Categorisation Trade: Vslvoy: OSP145GB Port: Cust: Dept:

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Best Regards
Sandra Avila
Transmarine Portland
1200 N.W. Naito Parkway, Suite 390
Portland, Oregon 97209
Phone: (503) 242-3864
Fax: (503) 241-4075

email: portland@transmarine.com
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please reply to: portland@transmarine.com

PACIFIC TERMINAL SERVICES, INC.
910 SW Spokane Street, Seattle, Washington 98134
P.O. Box 24005, Seattle, Washington 98124-0005
Tele. (206) 628-0051 Fax (206) 628-0293

INVOICE NO. **IVC000027**

Bill TO: **KOPPER INDUSTRIES, INC.**
7540 NW St Helens Road
Portland, Oregon 97210
Attn: Amos S. Kamerer
Customer ID: **KOPPER**

INVOICE DATE: ~~01/31/2000~~ 3/15/00

DATE	ITEM	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
01/31/2000	CON-REV-PTLD	Manpower Charges	$3,712.50	$3,712.50
		Oil Spill Response	$600.00	$600.00
				$4,312.50

RECEIVED
MAR 20 2000
KOPPERS INDS, INC
PORTLAND OR

Please remit payment by wire to Key Bank Acct # 479681003154,
ABA # 125000574

TOTAL **$4,312.50**

THANK YOU FOR YOU BUSINESS

3934.50

see pg 2

Pacific Terminal Services, Inc.
Portland Terminal- Koppers Billing Log
14-Mar-00

REV #1 3/15/00 - MFH

Vessel: Osprey Arrow 1500 HRS 2-23-00 to 1900HRS 2-24-00

Hours Worked For Koppers

	Hours on Job	Total Hours
Foreman		
Mike Satre	1600/23 to 1800/23	2
Gary Bucknum	1530/23 to 0015/24	8.75
Bill Schaeffner	2330/23 to 0800/24	8.5
Mike Satre	0730/24 to 1600/24	8.5
Wally Weiss	1530/24 to 1900/24	4
Dockman		
Burt Nye	1600/23 to 1800/23	~~8~~ 2
Mark Flower	1800/23 to 0100/24	7
Bud Dahlen	0100/24 to 0900/24	8
Burt Nye	0900/24 to 1800/24	9
Mark Flower	1800/24 to 1900/24	4
Total Hours		~~68.75~~ 61.75
Rate per Hour		$ 54.00
Manpower Charges		**$ 3,712.50** 3,334.50
Oil Spill Response Charge		**$ 600.00** 600.00
Total Due		**$ 4,312.50** 3,934.50

Ok to pay
#5050

RMCAT
ENVIRONMENTAL SERVICES, INC.
CCB # 126132

INVOICE

REMIT TO: **RMCAT ENVIRONMENTAL**
5762 Lamar Street
Arvada CO 80002
Phone Number: (800) 930-0011

BILL TO: **Koppers Industries**
7540 NW St. Helens Rd.
Portland OR 97210
Attn: Amos Kamerer

INVOICE DATE: **Dec. 20, 1999**

INVOICE NUMBER: **90274-1**

CLIENT PO NUMBER: **verbal**

PAYMENT DUE: **January 20, 1999**

JOB NUMBER: **420-9-90274**

Final Invoice

Description of Cost and Work Performed:

Transport and dispose 28.6 tons PCS

Labor	$154.00
Equipment	$45.00
Materials	$17.50
Other Direct Cost	$865.20

Amount Due: **$1,081.70**

If you have any questions concerning this invoice, please contact Bob Janak at 503-408-7404.

Bob Janak
General Manager

RECEIVED
JAN - 4 2000
KOPPERS INDS, INC.
PORTLAND OR

ROCKY MOUNTAIN WEST
DENVER, COLORADO

PACIFIC NORTHWEST
PORTLAND, OREGON

DAILY WORK REPORT

BILL TO CLIENT: Koppers Industries
7540 NW St Helens Rd
Portland, OR 97210
ATTN: Amos Kamerer

DATE: 12/17/1999
CLIENT P.O. #:
RMCAT JOB#: 400-420-9-90274
JOB TIME: 0830-1200

WORK DESCRIPTION:

Mob to site with a 5-cy dump truck and transport PCS to TPS

LABOR:

EMPLOYEE NAME	TIME WORKED	OCCUPATION	STRAIGHT TIME HRS	STRAIGHT TIME RATE	STRAIGHT TIME AMT	OVERTIME HRS	OVERTIME RATE	OVERTIME AMT	TOTAL AMOUNT
Jim Gibbons	0830-1200	Truck Driver	3.50	$40.00	$140.00				$140.00
Kelly Chernault	1400-1430	Admin Support	0.50	$28.00	$14.00				$14.00
								TOTAL LABOR:	$154.00

EQUIPMENT

EQUIPMENT NUMBER	EQUIPMENT DESCRIPTION	USAGE	RATE	TOTAL AMOUNT
	Dump Truck Miles	100	$0.45	$45.00
			TOTAL EQUIPMENT:	$45.00

SUPPLIES & MATERIALS:

SUPPLIES & MATERIALS: DESCRIPTION	QTY	UNIT	RATE	TOTAL AMOUNT
Level D	0.5	ea	$35.00	$17.50
			TOTAL SUPPLIES & MATERIALS:	$17.50

OTHER COSTS:

DESCRIPTION	INVOICE TOTAL	MARK UP	TOTAL AMOUNT
TPS Soil Recyclers of Oregon (22.11 tons)	$632.35	15%	$727.20
United Rentals-Dump Truck	$120.00	15%	$138.00
		15%	
		15%	
		15%	
		15%	
		15%	
		TOTAL OTHER COSTS:	$865.20

DWR SUMMARY OF CATEGORIES:

LABOR:	$ 154.00
EQUIPMENT:	$ 45.00
SUPPLIES & MATERIALS:	$ 17.50
OTHER COSTS:	$ 865.20
TOTAL DAILY CHARGES:	**$ 1,081.70**
TOTAL CHARGES TO DATE:	

PREPARED BY: kkc
CUSTOMER:
RECEIVED BY:

24 Hour Hazardous Materials Emergency Response
(800) 930-0011

[redacted]

TPS
TECHNOLOGIES INC.

For Questions Call:
(407) 886-9570 x116 or 162
(800) 940-2666
Fax (407) 886-8300

REMIT TO: TPS TECHNOLOGIES, INC.
P.O. BOX 100103
PASADENA, CA 91189-0103

INVOICE NUMBER 006037

TPS JOB: 09-03693

SOLD TO: RM CAT Environmental
12823 Northeast Airport Way
Portland, OR 97230

REFERENCE: Koppers Tank Foundation Excava
7540 Northwest St. Helens Road
Portland, OR 97210

Customer PO#

ACCOUNT NO	SALESPERSON	FACILITY	TERMS	INVOICE DATE
1003513	PH	109	Job To Job	12/29/99

CODE	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
		Customer Contact: Bob Janak		
REM	22.11	CONTAMINATED SOIL REMEDIATION	28.60	$632.35

RMCAT Environmental Services, Inc.
Approved: Bulj Job#: 420-9-90274
Date Posted: 12-30-99 By: _____
Amount: $ 632.35
Billable: ☑ Non-Billable: ☐
Budgeted: ☑ Non-Budgeted: ☐

RECEIVED
DEC 30 1999

A ThermoRetec Company

Thank You

TOTAL: $632.35

Koppers020020

United Rentals
5413 NE COLUMBIA BLVD
PORTLAND, OR 97218
503-281-1151

Remit To:
UNITED RENTALS
PO BOX 5233
PORTLAND, OR 97208-5233

RENTAL RETURN INVOICE

** COPY **

Job Site:
RM CAT ENVIROMENTAL SERVICES
20981 SW SCHOLLS-SHERWOOD RD.
RESIDENCE
SHERWOOD, OR 97140
C#: 503-408-7404 J#: 503-408-7404

Customer: 738703
RM CAT ENVIROMENTAL SERVICES
12823 N.E. AIRPORT WAY
PORTLAND, OR 97230

Invoice #... 6686247-002
Invoice date 12/23/99
Date out... 12/09/99 7:30 AM
Date in..... 12/20/99 2:47 PM
Job Loc..... 20981 SW SCHOLLS-SHERW
Job No..... 38- RM CAT ENVIROMEN
P.O. #..... 90267
Ordered By.. STEVE
Written by.. UR366AW
Terms..... Net 30 Days

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	TRUCK DUMP 5YD CLASS C	120.00	120.00	575.00	1525.00	360.00
	305-5-58 Make: FORD Model: F-800 (TRUCK) Ser #: 1FDNF80C3VVA41371					
	MI OUT: 12583.50 MI IN: 12583.50				MIL CHG	.20
					Sub-total:	360.00
					Total:	360.00

455.7 x .20 = 91.14

~~120.00~~ ~~240.00~~
120.00

100 mi KOPPERS / T 1 DAY

~~355.7 MI HARMON T 2 DAYS~~ ~~240.00~~ 71.14 311.14

EQR

OPTIONAL DAMAGE WAIVER: Upon accepting the optional damage waiver, the Customer agrees to pay a charge equal to 12% of the rental charges on Equipment Customer wants covered by the Damage Waiver, in return, United agrees to waive certain claims for additional damage to such covered Equipment occuring during normal and careful use. *ACCIDENTAL DAMAGE WAIVER IS NOT INSURANCE!* Customer remains liable for all damages listed under Accidental Damage Waiver provisions in the Terms and Conditions on back page, including Customer's negligence or for Equipment theft.

Customer Accepts ( )
Customer Declines ( )

READ BEFORE SIGNING: United hereby leases to Customer the Equipment (as defined in the Terms and Conditions on the reverse side) and Customer hereby accepts all *TERMS AND CONDITIONS* listed in this rental agreement, including the Terms and Conditions set forth on the reverse side, which the undersigned has read and understands; REMINDERS: (1) Rates do not include fuel or delivery; (2) Optional Damage Waiver charge is 12% of the total rental charge for covered Equipment; (3) Customer pays for all time the Equipment is out, including Saturdays, Sundays and Holidays. (4) This rental agreement supersedes all other purchase orders or terms and conditions contained in any of Customer's agreements or forms; (5) Customer assumes all risk and is responsible for all damages and other costs, including late charges. Details of the above as well as other obligations and responsibilities are contained in the TERMS AND CONDITIONS ON REVERSE. THE INDIVIDUAL SIGNING BELOW AS OR ON BEHALF OF CUSTOMER: (1) AGREES TO ALL OF THE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS RENTAL AGREEMENT; (2) ACKNOWLEDGES RECEIPT OF THE EQUIPMENT IN GOOD WORKING ORDER AND; (3) IS FULLY FAMILIAR WITH ITS OPERATION AND USE.

X

CUSTOMER SIGNATURE | DATE | NAME PRINTED | DELIVERED BY | DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

Koppers020021

Vendor Name RM Cat

G/L	Detail	Subdetail	Location	Department	Tax	Emp No.	Move No./ PO	Amount	Inv No.	Date
305	807		9270	910	0362			$1,082		
									104769	12/15/99
									Vendor Number	
									382898000	

	Gross Amount	$1,081.70	Terms	Due
	Discount		Code	Date
Authorization	Net	$1,081.70	045	
		Division	Month	Audit No.
		483	1	9270001005

Koppers020022

KOPPERS
INDUSTRIES

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

Telephone: (503) 286-3681
FAX: (503) 285-2831

May 26, 1989

Mr. Bruce Henderson
N.W. Region D.E.Q.
811 S.W. 6th Ave
Portland, Oregon 97204

Dear Sir:

This letter is to confirm our telephone conversation of May 23, 1989, at which time I informed you that a spill of Coal Tar Creosote of approximately 5-10 gallons occurred at McCormick & Baxter Creosoting Company on the Edgewater Boulevard, Portland, Oregon. This discharge occurred while our truck was delivering a load of Creosote to this customer. The driver had cleared his pumping hose with air pressure and thought the hose was empty and clear. In reality the hose was not empty, and when the driver disconnected the hose from the truck Creosote Oil spilled on to the ground. This happened at approximately 11 AM on May 23, 1989.

As Plant Manager, I dispatched three employees to clean up the spill at McCormick & Baxter's. The material was absorbed and the contaminated soil was put in one 55 gallon drum that is approved for Hazardous Waste. This waste will be disposed of under manifest and in accordance with the law. Please be advised, that the National Response Center was contacted by this writer at 11:25 AM, May 23, 1989 and their Mr. Mackey assigned #7964 to this incident. I then contacted Ms. Claudia Anderson at the Oregon Emergency Response Center at 11:36 AM and she assigned #89-485 to this incident.

Thank you for your concern in this matter and should any further information be needed by your office please feel free to call.

Sincerely,

John A Oxford

John A. Oxford
Plant Manager

CC: T Kosmolski McCormick & Baxter
CC: L. Flaherty K-1750
J Batchelder K-1701
W. Swearingen K-1700

KOPPERS INDUSTRIES

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

Telephone: (503) 286-3681
FAX: (503) 285-2831

April 18, 1989

Mr. Richard Wixom
Department of Enviromental Quality
811 S. W. 6Th Ave
Portland, Oregon 97204

Dear Mr. Wixom:

This letter is a follow-up to your telephone conversation with Mr. Harold Beehler of Koppers Industries Inc., Portland, Oregon on April 3, 1989 at 1:40 PM Pacific Standard Time. At that time Mr. Beehler reported to you that while heating a rail car of Coal Tar Creosote here, at our facility, approximately 100 Gallons exited the car through the top manhole. Most of the material was contained on the asphalt pad that surrounds the rail track. As reported by Mr. Beehler the Creosote Oil was contained and absorbed with sand and other absorbent materials. All operations in our plant were suspended and priority was given to the immediate clean-up of this spill. The material was placed in drums that are approved for hazardous waste and will be disposed of in a timely fashion in accordance with our State and Federal laws. It is my understanding that to this incident you have assigned Report # 89-312. Also for your information Mr. Beehler further reported this spill to the National Response Center in Washington, D. C., and they assigned Report #4791 to this spill.

In conclusion, I wish to thank you for your help and concern in this matter and should you need any further information on this incident, please feel free to call.

Sincerely,

John A Oxford

John A. OXFORD
Plant Manager

CC: J.R. Batchelder K-1701
L. Flaherty K-1750
B. Nolan K-1400
B. Swearingen K-1200
Plant File

JAO:mn

DEQ

Richard Wixom

229-6020

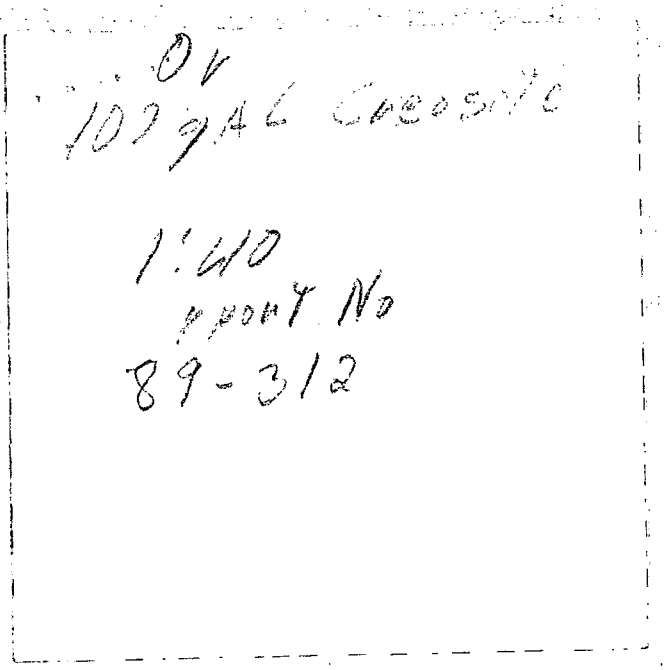
4-3-89

Spill

Reported by Harold Beechler

report No
4791

NATIONAL



Or
100 gal Creosote

1:40
report No
89-312

Author: Traci Self at PITT
Date: 6/4/98 2:32 PM
Priority: Normal
TO: Mark Cilley at CHIMAIN
TO: Steve Lish at Follansbee
TO: Amos Kamerer
TO: Ron Rutledge
Subject: Reportable Spills

---------- Message Contents ----------

Please provide the following information for all reportable releases for your facility from 11/96 thru 5/98:

1. The date of the release
2. Material that was released
3. Quantity released
4. Agencies notified
5. Whether a Notice of Violation or other action issued
6. Description of the release, including the corrective action taken

Please provide the requested information to me by June 11, 1998.

Thank You,

Traci Self

FAX: Traci

10 pages

only 1 Reportable, per the Attached.

Amos
6/7/98

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

February 13, 1998

Loren Garner
Department of Environmental Quality
2020 SW 4th, #400
Portland, OR 97201-5884

Reference: OERS No. 98-0227

Enclosed please find the spill/release report covering the referenced incident number.

Please feel free to call me @ 503-286-3681 if you have any questions.

Sincerely,

Amos S. Kamerer

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: Kevin Fitzgerald DATE: 2/13/98

FROM: Amos TOTAL # OF PAGES: 5

The ATTACHED for your files —

Also, please Review the J.S.A. that I sent yesterday

And advise — We will use this As our new procedure

for this operation.

THANKS

IF THIS TRANSMITTAL IS IN ERROR, PLEASE CALL 503-286-3681 FAX # 503-285-2831

Koppers020030

SPILL/RELEASE REPORT

1 - GENERAL INFORMATION **OERS No.** 98-0227

a. **Company/Individual Name:** Koppers Industries, Inc.

b. **Address:** 7540 NW St Helens Road
Portland, OR 97210

c. **Company Contact Person:** Amos Kamerer

d. **Phone Number(s):** (503) 286-3681

e. Specific on-site location of the release (and address if different from above):
Area around tank #68

Please provide a map of the site showing area(s) where the release occurred, any sample collection locations, location of roads/ditches/surface water bodies, etc.

2 - RELEASE INFORMATION

a. Date/Time Release started: estimated 1:05pm Date/Time stopped: 1:15pm

b. Release was reported to (specify Date/Time/Name of Person contacted where applicable):

ODEQ

OERS 1/28/98, 5:50pm, Tami

NRC 1/28/98, 5:40pm, Miss Ebner

(1)Other (describe): Portland Fire Bureau, Station #22, Bill Henle, 1/28/98, 1:30pm

c. Person(s) reporting release: Amos Kamerer

d. Name, quantity and physical state (gas, liquid, solid or semi-solid) of material(s) released:
coal tar pitch, liquid

Please attach copies of material safety data sheets (MSDS) for released material(s).

e. The release affected: ___Air ___Groundwater ___Surface Water ___Soil _X_Sediment

f. Name and distance to nearest surface water body(s), even if unaffected (include locations of creeks, streams, rivers and ditches that discharge to surface water on maps):
Willamette River, about 2,000 feet to the north

Has the release reached the surface water identified above?: ___Yes _X_No
Could the release potentially reach the surface water identified above? ___Yes _X_No
Explain: Coal tar pitch solidifies as hard as coal at ambient temperatures, when contained and cooled, we picked it up and recycled it.

g. Depth to nearest aquifer/groundwater: unknown

Is nearest aquifer/groundwater potable (drinkable)? ___Yes _X_No
Has the release reached the nearest aquifer/groundwater? ___Yes _X_No
Explain: Material solidifies when cooled and is not water soluable.

(1) City of Portland, Environmental Services, Steve Rosenberger, John Holtrop, 1/28/98, 1:30pm

h. Release or potential release to the air occurred? ___Yes _X_No
Explain:

i. Was there a threat to public safety? ___Yes _X_No
j. Is there potential for future releases? ___Yes _X_No
Explain: Similar event is possible, but unlikely.

k. Describe other effects/impacts from release (emergency evacuation, fish kills, etc.):
Insignificant environmental impact.

l. Describe how the release occurred. Include details such as the release source, cause, contributing weather factors, activities occurring prior to or during the release, dates and times of various activities, first responders involved in containment activities, etc.:
While transferring molten pitch to our shipping tank, T-68, the tank over flowed due to the mechanical failure of the gauging device. All spilled material was contained on site. 100% was recovered. 99% was recycled, and 1% was disposed of as a non-hazardous material. A passer by called 911 and the Portland Fire Bureau station #22 responded at about 1:30pm, saw that we had the material contained, and then departed.

3 - SITE INFORMATION

a. Adjacent land uses include (check all that apply and depict on site maps):
___Residential ___Commercial ___Light Industrial _X_Heavy Industrial
___Agricultural ___Other (describe):
b. What is the population density surrounding the site: light
c. Is the site and/or release area secured by fencing or other means? _X_Yes ___No
d. Soil types (check all that apply): ___alluvial ___bedrock _X_clay _X_sandy
___silt ___silty loam _X_artificial surface (cement/asphalt/etc.)
e. Describe site topography: Flat

4 - CLEANUP INFORMATION

a. Was site cleanup performed? X Yes ___ No
If No, explain: _____

b. Who performed the site cleanup?
Company Name: Koppers Industries, Inc.
Address: 7540 NW St Helens Road
Portland, OR 97210
Cleanup Supervisor: T.J. Turner
Phone Number(s): (503) 286-3681

c. Has all contamination been removed from the site? ___ Yes X No
If No, explain: This material has been collected and is being held in a secure area, to be properly land fill disposed of, in the future.

d. Estimated volume of contaminated soil removed: less than 100 pounds

e. Estimated volume of contaminated soil left in place: 0

f. Was a hazardous waste determination made for cleanup materials? ___ Yes X No

g. Based on the determination, are the cleanup materials hazardous wastes?
___ Yes X No If Yes, list all waste codes: _____

h. Was contaminated soil or water disposed of at an off-site location? ___ Yes X No
If yes, attach copies of receipts/manifests/etc., and provide the following information:
Facility Name: _____
Address: _____
Facility Contact: _____
Phone Number(s): _____

i. Is contaminated soil or water being stored and/or treated on-site? X Yes ___ No
If yes, please describe the material(s), storage and/or treatment area, and methods utilized (attach additional sheets if necessary):
This material has been collected and is being held in a secure area, to be properly land fill disposed of, in the future.

j. Describe cleanup activities including what actions were taken, dates and times actions were initiated and completed, volumes of contaminated materials that were removed, etc. (attach additional sheets or contractor reports if necessary or more convenient):
After the pitch cooled and solidified, it was picked up with shovels and front end loaders for recycling back into our process. The calculated spillage was 6.985 tons. All of this was cleaned up and recycled with in 7 working days.

5 - SAMPLING INFORMATION

Attach copies of all sample data and indicate locations of sample collection on maps.

a. Were samples of contaminated soil collected? ___Yes ___No _X_ N/A
b. Were samples of contaminated water collected? ___Yes ___No _X_ N/A
c. Were samples collected to show that all contamination had been removed?
___Yes ___No _X_ N/A
d. Describe sampling activities, results and discuss rationale for sampling methods:

6 - SPILL REPORT CHECKLIST

To ensure that you have gathered all the information requested by the Department in this Spill/Release Report, please complete the following checklist:

_X_ Map(s) of the site showing buildings, roads, surface water bodies, ditches, waterways, point of the release, extent of contamination, areas of excavation and sample collection locations attached.

_X_ Material Safety Data Sheet (MSDS) for released material(s) attached.

_N/A_ Sampling data/analytical results attached.

_N/A_ Receipts/manifests (if any) for disposal of cleanup materials attached.

_N/A_ Contractor reports (if any) attached.