EPA Region 5 Records Ctr.
324865

4-1-98

FINAL REPORT

Crude Coal Tar Spill – September 8, 1995
Chicago Sanitary & Ship Canal
Koppers Industries, Inc.
Stickney Terminal
4100 South Laramie
Stickney, Illinois

Prepared for:

U. S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois

Prepared Pursuant to:

Administrative Order
Docket No. V-W-96-AO-01
Issued October 5, 1995

Prepared by:

Koppers Industries, Inc.
3900 South Laramie Avenue
Stickney, Illinois

April 1, 1998

VOLUME 1 of 2

WILDMAN, HARROLD, ALLEN & DIXON
225 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606-1229
(312) 201-2000
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April 22, 1998

JAMES R. MORRIN
(312) 201-2564

VIA MESSENGER DELIVERY

Ms. Karen Vendl
Environmental Scientist
Mail Code HSE-5J
U.S. Environmental Protection Agency
5th Floor
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Koppers Industries Inc.
Stickney Tar Spill - Final Report
Request For Notice of Completion and
Supplement to Final Report for 9/8/95 Crude Coal Tar Spill

Dear Ms. Vendl:

By letter of April 1, 1998, I transmitted to you the two-volume Final Report prepared by Koppers Industries, Inc. for filing with the U.S. EPA pursuant to Administrative Order No. V-W-96-AO-01. This letter supplements two deficiencies in the Final Report: The Final Report, as submitted, failed to contain the Certification of Completion required under § 3.5 of the Administrative Order; and, we failed to include with the Final Report a request for Notice of Completion as provided under Section XII of the Administrative Order.

Attached to this letter is the Certification, which has been signed by Mr. Mark Cilley of Koppers Industries, Inc. As to the Notice of Completion, please allow this letter to stand as Koppers Industries' request, pursuant to Section XII of the Administrative Order, that U.S. EPA provide Koppers Industries, Inc. with a Notice of Completion of the work required by the Order.

Please call me if you have any questions.

Sincerely,

James R. Morrin

JRM:cr
cc: Mr. William Smith
Mr. Mark Cilley
Enclosure

STATE OF ILLINOIS)
) SS.
COUNTY OF COOK)

AFFIDAVIT OF MARK A. CILLEY

Mark A. Cilley, being first duly sworn upon oath, deposes and states as follows:

1. I am employed by Koppers Industries, Inc. as its Environmental, Health & Safety Manager at the Koppers Industries, Inc. Stickney, Illinois Facility and Terminal (Company).

2. I am the employee at Koppers Industries, Inc. who at all times has had principal responsibility for the Company's compliance with Administrative Order No. V-W-96-AO-01, issued in connection with a crude coal tar spill that occurred from the Koppers Industries, Inc. Stickney Terminal on or about September 8, 1985.

3. On April 1, 1998, I caused to be filed with U.S. EPA, a Final Report, which consisted of two volumes of information responsive to the requirements of the Administrative Order.

4. Pursuant to § 3.5 of the Administrative Order and under penalty of law, I hereby certify that, to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the Final Report, the information submitted therein is true, accurate and complete.

FURTHER, YOUR AFFIANT SAYETH NOT.

Mark A. Cilley
Mark A. Cilley
Environmental, Health & Safety Manager
Koppers Industries, Inc.

SUBSCRIBED AND SWORN
TO BEFORE ME THIS 22nd
DAY OF April, 1998.

Carol Ryan

"OFFICIAL SEAL"
CAROL RYAN
Notary Public, State of Illinois
My Commission Expires 8-28-99

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April 1, 1998

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VIA MESSENGER DELIVERY

Ms. Karen Vendl
Environmental Scientist
Mail Code HSE-5J
U.S. Environmental Protection Agency
5th Floor
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Koppers Industries Inc.
Stickney Tar Spill
Final Report

Dear Ms. Vendl:

This letter accompanies the Final Report of Koppers Industries, Inc. on the September 8, 1995 tar spill. This Report collects and organizes by date all documents previously submitted to U.S. EPA, with the exception of the Health & Safety Plan, which was filed at the beginning of the project. Copies of the Final Report will also be forwarded to the Illinois Environmental Protection Agency and the Metropolitan Water Reclamation District within a few days.

Should you have any questions regarding the report, feel free to contact Mr. Mark Cilley at the Stickney Plant.

Very truly yours,

James R. Morrin

JRM:cr

Enclosures

cc: Mr. Allen Anderson (w/encls.)
Mr. Randall D. Collins (w/o encls.)
Mr. Mark A. Cilley (w/o encls.)

FINAL REPORT

Crude Coal Tar Spill – September 8, 1995
Chicago Sanitary & Ship Canal
Koppers Industries, Inc.
Stickney Terminal
4100 South Laramie
Stickney, Illinois

Prepared for:

U. S. Environmental Protection Agency
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3900 South Laramie Avenue
Stickney, Illinois

April 1, 1998

VOLUME 1 of 2

FINAL REPORT

Crude Coal Tar Spill - September 8, 1995
Chicago Sanitary & Ship Canal
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1. Introduction

Koppers Industries, Inc., operates a plant at 3900 South Laramie Avenue, in Stickney, Illinois. At this plant, Koppers a produces coal tar products and phthalic anhydride which operations have an SIC code of 2865. There are 135 personnel employed at this site. In conjunction with plant operations, Koppers also operates a bulk terminal and storage facility along the Chicago Sanitary & Ship Canal at 4100 South Laramie in Stickney.

On Friday, September 8, 1995, between 7:35 p.m. and 8:20 p.m., an estimated 17,000 gallons (170,000 pounds) of coal tar/coal tar mixture was released from a transfer pipeline onto the ground and into the Chicago Sanitary and Ship Canal from the Koppers Stickney Terminal. The release was caused by a mechanical failure of a welded cap on an 8-inch transfer line.

Containment was initiated by plant personnel using an on-scene boat, motor, slicker boom and absorbent booms and sheets. OSRO (Heritage Remediation Services, Inc.) was contacted and arrived on scene by 11:20 p.m. to assist in further containment and initiate clean-up activities. FG Enterprises was also contacted and arrived on scene by and arrived on scene by 11:00 p.m. with vacuum truck and hoses to assist in clean up activities on shore and at collection points inside the slicker booms. Environmental Marine Services, Inc. was contacted on September 13, 1995, and arrived on scene Friday, September 15, 1995, to begin underwater recovery of the released material.

All agency notifications were completed and agency personnel arrived on scene starting at 9:30 p.m. (Mr. David Seaholm-MWRD), at 11:00 p.m. (Mr. James Pilko and Mr. Mack Meade-US Coast Guard). On September 9, 1995 at 2 a.m. (Mr. Walter Neid-U.S. EPA) at 0930 (Mr. Robert D. Roache-Cook County Environmental Control) arrived on site. Jurisdiction over the incident was finally released to U.S. EPA OSC Walter Neid. The current OSC is Ms. Karen A.Vendl.

All soil remediated from the site was stored on site until analytical results were received from a laboratory (Environmental Monitoring and Technologies). Coal Tar is not an Extremely Hazardous Substance. All Coal Tar removed from the bottom of the Sanitary Shipping Canal was treated in the Koppers Wastewater Treatment Plant (WWTP) and the treated effluent was discharged to the Canal pursuant to a temporary discharge permit issued by the Illinois Environmental Protection Agency.

No crude oil was involved in this release. All material involved was coal tar/coal tar mixture (CAS #65996-89-6).

There were no injuries or public health risk associated with this incident.

At the time of the incident, there was approximately 5,309,350 gallons of coal tar in storage.

The foregoing information was initially reported to appropriate federal and state agencies within four hours of the incident.

On October 5, the United States Environmental Protection Agency issued to Koppers Industries, Inc., Administrative Order No. V-W-96-AO-01 (Appendix A), which essentially required Koppers to take all remediation actions consistent with the Order and the directions of the On Scene Coordinators assigned to the Site.

2. Summary of Actions Taken To Comply With Order

Koppers took the following actions respecting the U.S. EPA Administrative Order, which are fully detailed in Tabs 1-40 of Appendix D:

1. Koppers removed all contaminated surface soils adjacent to the Canal, and installed monitoring wells adjacent to the Canal bank to assure that cleanup of all contaminated soils had been achieved;

2. Koppers installed, and maintained throughout subsequent dredging operations, absorbent booms that were positioned to trap surface contaminants emanating from the original spill and from subsequent dredging activities.

3. Pursuant to direction of the initial On-Scene Coordinator, Koppers commenced "Diver Assisted Dredging" (DAD), employing individual divers equipped with a hand-operated dredge-head.

4. Pursuant to direction of the initial On-Scene Coordinator, Koppers used divers to apply an underwater sealant to the sheet piling adjacent to the spill site;

5. Koppers performed modifications to its existing Wastewater Treatment Plant (WWTP), utilizing spare tankage to accept the dredged materials, treat same in the WWTP, and discharge the treated effluent to the Chicago Sanitary & Ship Canal pursuant to a temporary discharge permit issued to KII from the Illinois Environmental Protection Agency (Tab 2). Koppers regularly sampled and analyzed the WWTP dredged material effluent, and reported the results to U.S. EPA, the IEPA, and the Metropolitan Water Reclamation District of Chicago, on a bi-weekly basis. (See, Progress Reports w/attached effluent analyses, Tabs 3, 4, 5, 7, 9, 11, 12, 15, 16, 18, 20, 23, and 29.). Throughout this matter, IEPA and MWRD were furnished with copies of the Koppers Progress Reports.

6. The DAD method initially employed to effect dredging proved inefficient and unmanageable due to the heavy silting conditions in the Canal. After reviewing various alternatives, and with the approval of the U.S. EPA On-Scene Coordinator, Koppers continued to dredge using a barge-mounted dredge that was anchored by cabling to the shore and operated from the barge through mechanical controls. This permitted consistent dredging, and precise placement and documentation of dredging activities.

7. Koppers permanently removed the pipeline that was involved in the release.

8. Koppers completed dredging operations in May 1996, after which it commenced work to determine whether dredging activities had removed the spilled coal tar.

9. Between May 1996 and Spring 1997, Koppers performed various sampling and analyses activities of Canal sediments and sheen, and submitted same to U.S. EPA.

10. On January 29, 1998, U.S. EPA issued a letter to Koppers requesting the preparation and filing of this Final Report pursuant to the Administrative Order and applicable federal regulations.

3. Total Costs Incurred In Complying With Order

The attached journal voucher reports (Appendix C) were extracted from the books and records of Koppers Industries, Inc., and set forth the costs incurred by Koppers associated with the remediation of the September 8, 1995 release. Contractors used are listed under the vendor heading in alphabetical order. At the top of the report (center) the month and year listed is the date through which that particular report has captioned the cost. To date, Koppers Industries, Inc. has spent $5,024,079 in response to this incident.

4. Materials Removed Off-Site or Handled On-Site

All dredged material was first processed though API separators to remove the coal tar and sediment from the water. All wastewater was then processed through Koppers Industries, Inc., on-site wastewater treatment plant that included API separators, dissolved air flotation units, equalization tank, biological treatment via activated sludge, and carbon units that were retrofitted to the end of the process. All wastewater discharge was returned to the Chicago Sanitary and Shipping Canal under USEPA emergency discharge authorization and in accordance with discharge limitations from Illinois EPA under Emergency Response Incident #951884. During the remediation, approximately 83.5 million gallons of water was treated and returned to the Canal.

The solidified material (coal tar and sediment) and contaminated refuse from personal protective equipment, debris collected in booms, absorbent materials and equipment that could not be decontaminated (shovels, plastic etc.), was disposed of at the facility identified below. During the course of remediation, approximately 7,836,000 pounds of material was disposed of.

A. Disposal Options Considered

1. The first option considered was recycling through the tar distillation facility on site. Because the sediment could not be physically separated from the coal tar, which created a very high ash content well above our specifications, this option was deemed infeasible.

2. The second option considered was fuel blending at a cement kiln. This option was also deemed infeasible due to the BTU value of this material being less than 5,000 BTU/lb.

3. The third option considered was incineration. Due to the cost associated with this option it was also deemed infeasible.

4. The last option considered was solidification and land disposal. Since a TCLP analysis showed the waste to be non-hazardous under RCRA, and permits were in place for similar material at County Environmental of Livingston, this option was chosen.

B. Destination of Disposed Materials

All material disposed of was properly shipped and manifested to County Environmental of Livingston, in Pontiac, Illinois.

5. Analytical Results of All Sampling & Analyses Performed

All sampling and analyses results can be divided into two categories: 1) sampling and analyses of wastewater effluent from the Koppers Waste Treatment Plant — these were wastewaters that were discharged to the Chicago Sanitary & Ship Canal pursuant to a temporary IEPA discharge permit; and 2) sampling and analyses of the virgin coal tar product from the pipeline that failed, and sampling and analyses of Canal sediments and Canal surface sheens to determine cleanup efficacy.

The sampling analyses data for both categories are referenced in Appendix B, which is the table summary of all documents included with this report. Sampling and analyses of WWTP effluent can be found with reference to a particular Progress Report by date. Sampling and analyses data for Canal sediments can be found at:

Tab 25 - Sample results, May 19, 1996
Tab 33 - Preliminary qualitative data, A.D. Little & Company
Tab 34 - Final Report, 1/30/97, A.D. Little & Company
Tab 37 - Sheen Sediment Analysis, 10/17/97, A.D. Little & Company

A

APPENDIX A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF: KOPPERS INDUSTRIES, INC. CICERO, ILLINOIS FPN 096001 Respondent.	))))))))	Docket No. V-W-96-AO-01 ADMINISTRATIVE ORDER PURSUANT TO SECTION 311 OF THE CLEAN WATER ACT 33 U.S.C. § 1321

I. JURISDICTION AND GENERAL PROVISIONS

This Order is issued by the United States Environmental Protection Agency ("U.S. EPA") to Koppers Industries, Incorporated ("Koppers" or "Respondent"). The Order is issued pursuant to the authority vested in the President of the United States by Section 311(c), (e), and (m) of the Clean Water Act ("CWA"), 33 U.S.C. § 1321(c), (e) and (m). This authority has been delegated to the Administrator of the United States Environmental Protection Agency ("U.S. EPA") by Executive Order 12777 (October 22, 1991), and further delegated to the Regional Administrators by U.S. EPA Delegation Nos. 2-85, 2-89, and 2-13, and to the Director of the Waste Management Division by a Regional Delegation, dated September 17, 1992. Effective October 1, 1995, the authority was redelegated from the Director of the Waste Management Division to the Director of the Superfund Division.

This Order provides for performance of removal actions and reimbursement of removal costs incurred by the United States in connection with property located at 3900 South Laramie Avenue, Cicero, Illinois, and the Chicago Sanitary and Ship Canal ("Canal"). This Order requires Respondent to conduct removal actions described herein to abate an imminent and substantial threat to the public health or welfare of the United States, including fish, shellfish, and wildlife, public and private property, shorelines, beaches, habitat, and other living and nonliving natural resources under the jurisdiction or control of the United States, because of an actual or threatened discharge of oil from a facility in violation of Section 311(b) of CWA, 33 U.S.C. § 1321(b).

Pursuant to Section 311(e)(1)(B) of CWA, 33 U.S.C. § 1321(e)(1)(B), U.S. EPA has notified the State of Illinois of the issuance of this Order.

II. PARTIES BOUND

This Order applies to and is binding upon Respondent and Respondent's heirs, receivers, trustees, successors and assigns.

Any change in ownership or corporate status of Koppers Industries, Inc., including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Order. Respondent is jointly and severally liable for carrying out all activities required by this Order.

Respondent shall ensure that its contractors, subcontractors, and representatives comply with this Order. Respondent shall be responsible for any noncompliance with this Order.

III. FINDINGS OF FACT

Based on available information, U.S. EPA hereby finds that:

1. Koppers Industries, Inc., owns and operates a chemical manufacturing facility ("Facility") at 3900 South Laramie Avenue, Cicero, Illinois. The Facility operates as a producer of coal tar products, including tar, creosote, and other oil-based products.

2. On September 8, 1995, at 8:15 p.m., Koppers discovered a spill of approximately 17,000 gallons of crude coal tar which discharged into the Chicago Sanitary and Ship Canal ("Canal"). The source of the spill was a storage tank transfer pipeline, located adjacent to the Canal. The cause of the spill was a ruptured weld joint on the transfer pipeline.

3. Koppers reported the discharge to the National Response Center ("NRC") on September 9, 1995, at 12:22 a.m.. The NRC Incident Reports are found in Attachment A of this order. The U.S. EPA On-Scene Coordinator, Walter Nied, responded on September 9, 1995 and began monitoring Koppers' cleanup activities.

4. Due to its physical characteristics, most of the crude coal tar settled through the water column and accumulated on the bottom of the Canal. It is likely that the crude coal tar also contaminated soils on the shoreline around the ruptured pipeline.

IV. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, U.S. EPA has determined that:

1. The Facility is an "onshore facility" as defined by Section 311(a)(10) of CWA, 33 U.S.C. § 1321(a)(10), and by Section 1001(24) of the Oil Pollution Act ("OPA"), 33 U.S.C. § 2701(24).

2. Respondent is a "person" as defined by Section 311(a)(7) of CWA, 33 U.S.C. § 1321(a)(7), and by Section 1001(27) of OPA, 33 U.S.C. § 2701(27).

3. Respondent is an "owner or operator" of the Facility as defined by Section 311(a)(6) of CWA, 33 U.S.C. § 1321(a)(6), and by Section 1001(26) of OPA, 33 U.S.C. § 2701(26).

4. A "removal" as defined in Section 311(a)(8) of CWA, 33 U.S.C. § 1321(a)(8) and Section 1001(30) of OPA, 33 U.S.C. § 2701(30), is necessary at the Facility to minimize and mitigate damage to the public health or welfare.

5. An actual or threatened "discharge" as defined in Section 311(a)(2) of CWA, 33 U.S.C. § 1321(a)(2) and Section 1001(7) of OPA, 33 U.S.C. § 2701(7), and 40 C.F.R. § 110.1, is occurring or has occurred at or from the Facility.

6. Crude coal tar is an "oil" as defined in Section 311(a)(1) of CWA, 33 U.S.C. § 1321(a)(1) and Section 1001(23) of OPA, 33 U.S.C. § 2701(23), and is currently present at and around the Facility.

7. The Chicago Sanitary and Ship Canal is a "navigable water" of the United States as defined in Section 502(7) of the CWA, 33 U.S.C. § 1362(7) and Section 1001(21) of OPA, 33 U.S.C. § 2701(21).

8. The Canal is a "natural resource" within the meaning of the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. § 300.5, and Section 1001(20) of OPA, 33 U.S.C. § 2701(20).

9. "Natural resources", as defined in the NCP, 40 C.F.R. § 300.5, and Section 1001(20) of the OPA, 33 U.S.C. § 2701(20), may be affected by the discharge at or from the Facility.

10. The Facility may pose an imminent and substantial threat to the public health or welfare of the United States because of an actual discharge of crude coal tar from the Facility in violation of Section 311(b) of CWA, 33 U.S.C. § 1321(b).

11. There is or has been a release of regulated substances into the environment from the aboveground piping owned and/or operated by Respondent.

12. The measures set forth in this Order are necessary to protect human health and the environment and to abate, minimize, stabilize, mitigate or eliminate the discharge or threat of a discharge of oil at or from the Facility.

13. Under Section 1002(b)(1) of OPA, 33 U.S.C. § 2702(b)(1), Respondent is liable to the United States Government for all removal costs incurred by the United States in connection with the Facility.

14. Under Section 311(b) of CWA, 33 U.S.C. §1321(b), Respondent may be subject to a civil penalty in an amount up to $25,000 per day of violation or an amount up to $1,000 per barrel of oil discharged.

V. ORDER

Based upon the foregoing Findings of Fact, Conclusions of Law and Determinations, U.S. EPA hereby orders Respondent to comply with the following provisions, including but not limited to all documents attached to or incorporated into this Order, and perform the following actions:

1. Notice of Intent to Comply

Respondent shall notify EPA in writing within 3 business days after the effective date of this Order of Respondent's irrevocable intent to comply with this Order. Failure of Respondent to provide such notification within this time period shall be a violation of this Order.

2. Designation of Contractor, Project Coordinator, and On-Scene Coordinator

Respondent shall retain (a) contractor(s) to investigate the source and extent of contamination and to implement the removal actions to abate the actual, or threat of an, ongoing discharge to the Canal. Respondent shall notify U.S. EPA of the name and qualifications of such contractor(s) within 5 business days of the effective date of this Order. Respondent shall also notify U.S. EPA of the name and qualifications of any other contractors or subcontractors retained to perform work under this Order. U.S. EPA retains the right to disapprove any of the contractors and/or subcontractors retained by the Respondent. If U.S. EPA disapproves a selected contractor, Respondent shall retain a different contractor within 3 business days following U.S. EPA's disapproval and shall notify U.S. EPA of that contractor's name and qualifications within 4 business days of U.S. EPA's disapproval.

Within 5 business days after the effective date of this Order, the Respondent shall designate a Project Coordinator who shall be responsible for administration of all the Respondent's actions required by the Order. Respondent shall submit the designated coordinator's name, address, telephone number, and qualifications to U.S. EPA. To the greatest extent possible, the Project Coordinator shall be present on-site or readily available during

site work. U.S. EPA retains the right to disapprove of any Project Coordinator named by the Respondent. If U.S. EPA disapproves a selected project coordinator, Respondent shall retain a different Project Coordinator within 3 business days following U.S. EPA's disapproval and shall notify U.S. EPA of that person's name and qualifications within 4 business days of U.S. EPA's disapproval. Receipt by Respondent's Project Coordinator of any notice or communication from U.S. EPA relating to this Order shall constitute receipt by Respondent.

The U.S. EPA has designated Karen Vendl and Leonard Zintak of the Emergency Response Branch, Region 5, as its On-Scene Coordinators ("OSC"). Respondent shall direct all submissions required by this Order to the OSC at: U.S. Environmental Protection Agency, Emergency Response Section, 77 West Jackson Boulevard, Mail Code HSE-5J, Chicago Illinois 60604-3590, by certified mail, express mail, or commercial courier service. Respondent is encouraged to make its submissions to U.S. EPA on recycled paper (which includes significant postconsumer waste paper content where possible) using two-sided copies.

U.S. EPA and Respondent shall have the right, subject to the preceding paragraph, to change their designated OSC or Project Coordinator. U.S. EPA shall notify the Respondent, and Respondent shall notify U.S. EPA, as early as possible before such a change is made, but in no case longer than 24 hours after such a change. The initial notification may be made orally but it shall be promptly followed by a written notice.

3. Work to Be Performed

A. Respondent shall perform the work set forth in the following Statement of Work. "Work" as used in this Order shall mean all requirements of this Order and all requirements of the Statement of Work.

B. Unless otherwise specified, all reports and notifications required by this Order to be given to U.S. EPA shall be submitted to:

Leonard Zintak / Karen Vendl
On-Scene Coordinator
U.S. Environmental Protection Agency
Emergency & Enforcement Response Branch (HSE-5J)
77 West Jackson Boulevard
Chicago, IL 60604
Telephone (312) 886-4246 / (312) 886-7194

C. All containment, remediation, mitigation, and removal action performed by the Respondent, shall be consistent with the OPA, the CWA, and the NCP.

D. The Respondent shall perform the following Statement of Work:

1. Develop and implement a site Health & Safety Plan;

2. Develop and implement an air monitoring plan;

3. Develop and implement a sampling and analysis plan;

4. Propose cleanup standards for the contaminated sediment in the Chicago Sanitary and Ship Canal (the Canal);

5. Prevent further leakage of crude coal tar and coal tar constituents into the Canal;

6. Determine the horizontal and vertical extent of contamination in the Canal;

7. Contain and recover the crude coal tar and coal tar constituents that have spilled into the Canal;

8. Prevent the migration of contaminants during the Canal cleanup;

9. Confirm cleanup of the Canal sediments.

E. Contamination on the adjacent shoreline near the ruptured pipeline shall be addressed under a separate administrative order.

3.1 Work Plan and Implementation

Within 5 business days after the effective date of this Order, the Respondent shall submit to U.S. EPA for approval a draft Work Plan for performing the removal activities set forth above. The draft Work Plan shall provide a description of, and an expeditious schedule for, the activities required by this Order.

U.S. EPA may approve, disapprove, require revisions to, or modify the draft Work Plan. If U.S. EPA requires revisions, Respondent shall submit a revised draft Work Plan within 2 business days of notification. Respondent shall implement the Work Plan as finally approved by U.S. EPA in accordance with the schedule approved by U.S. EPA. The approved Work Plan, the schedule, and any subsequent modifications shall be fully enforceable under this Order.

Respondent shall not commence or undertake any future removal actions at the Facility without prior U.S. EPA approval.

3.2 Health and Safety Plan

An approved site health and safety plan shall be in effect before any significant clean-up activities commence. The Respondents shall submit for U.S. EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-site work under this Order. This plan shall comply with applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If U.S. EPA determines it is appropriate, the plan shall also include contingency planning.

Respondents shall incorporate all changes to the plan recommended by U.S. EPA, and implement the plan during the removal action.

3.3 Quality Assurance and Sampling

All sampling and analyses performed pursuant to this Order shall conform to U.S. EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondent shall develop a plan to ensure the sampling and laboratory analysis complies with U.S. EPA QA/QC guidance.

Upon request by U.S. EPA, Respondent shall have such a laboratory analyze samples submitted by U.S. EPA for quality assurance monitoring. Respondent shall provide to U.S. EPA the quality assurance/quality control procedures followed by all sampling teams and laboratories performing data collection and/or analysis. Respondent shall also ensure provision of analytical tracking information consistent with the NCP and may use OSWER Directive No. 9240.0-2B, "Extending the Tracking of Analytical Services to PRP-Lead Superfund Sites" as guidance.

Upon request by U.S. EPA, Respondent shall allow U.S. EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by Respondent or its contractors or agents while performing work under this Order. Respondent shall notify U.S. EPA not less than 3 business days in advance of any sample collection activity. U.S. EPA shall have the right to take any additional samples that it deems necessary. U.S. EPA shall give Respondent advance notice of such activity so that it may take split and/or duplicate samples.

3.4 Reporting

Respondent shall submit a bi-weekly written progress report to U.S. EPA concerning actions undertaken pursuant to this Order, beginning 14 calendar days after the effective date of this Order and continuing until the termination of this Order, unless otherwise directed in writing by the OSC. These reports shall describe all significant developments during the preceding period, including the work performed and any problems

encountered, analytical data received during the reporting period, and developments anticipated during the next reporting period, including a schedule of work to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

Respondent shall, at least 30 days prior to the conveyance of any interest in real property at the Facility, give written notice of this Order to the transferee and written notice of the proposed conveyance to U.S. EPA and the State. The notice to U.S. EPA and the State shall include the name and address of the transferee. The party conveying such an interest shall require that the transferee will provide access as described in Section V.3 (Access to Property and Information).

The OSC may request weekly reports when the activities at the site warrant a higher reporting frequency.

3.5 Final Report

Within 60 calendar days after completion of construction and implementation of the removal actions required under this Order, Respondent shall submit for U.S. EPA review a final report summarizing the actions taken to comply with this Order. The final report shall conform to the requirements set forth in Section 300.165 of the NCP, 40 C.F.R. § 300.165. The final report shall also include a good faith estimate of total costs incurred in complying with the Order, a listing of quantities and types of materials removed off-site or handled on-site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destinations of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits).

The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

> Under penalty of law, I certify that, to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of this report, the information submitted is true, accurate, and complete.

4. Access to Property and Information

Respondent shall provide or obtain access to the Facility and off-site areas to which access is necessary to implement this Order, and shall provide access to all records and documentation related to the conditions at the Facility and the actions conducted pursuant to this Order. Such access shall be provided

to U.S. EPA, the U.S. Coast Guard ("USCG"), the U.S. Fish and Wildlife Service, and their employees, contractors, agents, consultants, designees, representatives, and State of Illinois representatives. These individuals shall be permitted to move freely at the Facility and appropriate off-site areas in order to conduct actions which U.S. EPA determines to be necessary. Respondent shall submit to U.S. EPA the results of all sampling or tests and all other data generated by Respondent or its contractor(s), or on the Respondent's behalf during implementation of this Order.

Where work under this Order is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements within 14 calendar days after the effective date of this Order, or as otherwise specified in writing by the OSC. Respondent shall immediately notify U.S. EPA if, after using its best efforts, it is unable to obtain such agreements. Respondent shall describe in writing its efforts to obtain access. U.S. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as U.S. EPA deems appropriate. Respondent shall reimburse U.S. EPA for all costs and attorneys' fees incurred by the United States in obtaining such access.

5. Record Retention, Documentation, Availability of Information

Respondent shall preserve all documents and information relating to work performed under this Order for six years following completion of the removal actions required by this Order. At the end of this six year period and at least 60 days before any document or information is destroyed, Respondent shall notify U.S. EPA that such documents and information are available to U.S. EPA for inspection, and upon request, shall provide the originals or copies of such documents and information to U.S. EPA. In addition, Respondent shall provide documents and information retained under this Section at any time before expiration of the six year period at the written request of U.S. EPA.

6. Off-Site Shipments

Respondent shall, prior to any off-facility shipment of oil, oil-contaminated soil, or oil-contaminated water, provide written notification of such shipment to the appropriate Illinois Environmental Protection Agency ("IEPA") official and to the U.S. EPA OSC. The notification shall include (1) the name and location of the facility to which the oil will be shipped; (2) the type and quantity of the oil to be shipped; (3) the expected schedule for the shipment of the oil; and (4) the method of transportation of the shipment of oil. Respondent shall also notify the appropriate IEPA official of major changes in the shipment plan, such as a decision to ship the oil to another

facility. All off-site shipments of oil, oil-contaminated soil and oil-contaminated water shall be transported, stored, and disposed of in accordance with all applicable U.S. Department of Transportation regulations, with the NCP and with all other applicable Federal, state and local laws and regulations.

7. Compliance With Other Laws

Respondent shall perform all actions required pursuant to this Order in accordance with all applicable local, state, and federal laws and regulations.

8. Emergency Response and Notification of Discharges

If any incident, or change in Facility conditions, during the activities conducted pursuant to this Order causes or threatens to cause a discharge of oil and/or hazardous substances from the Facility or an endangerment to the public health, welfare, or the environment, the Respondent shall immediately take all appropriate action to prevent, abate or minimize such discharge or endangerment caused or threatened by the discharge. Respondent shall also immediately notify the OSC or, in the event of his/her unavailability, shall notify the Regional Duty Officer, Emergency Response Branch, Region V at (312) 353-2318, of the incident or Facility conditions. If Respondent fails to respond, U.S. EPA may respond to the discharge or endangerment and reserves the right to recover costs associated with that hazardous substance response. The United States reserves the right to recover costs associated with that oil response.

Respondent shall submit a written report to U.S. EPA within 7 business days after each discharge, setting forth the events that occurred and the measures taken or to be taken to mitigate any discharge or endangerment caused or threatened by the discharge and to prevent the reoccurrence of such a discharge. Respondent shall also comply with any other applicable notification requirements, including, if applicable, those in CWA Section 311, 33 U.S.C. § 1321, CERCLA Section 103, 42 U.S.C. § 9603, and Section 304 of the Emergency Planning and Community Right-To-Know Act, 42 U.S.C. § 11004.

9. Additional Work

In the event U.S. EPA or the Respondent determines that additional work, not otherwise included in the Work Plan, is necessary to protect human health and/or the environment, notification of additional work shall be provided to all parties.

Additional work determined to be necessary by Respondent shall be subject to the written approval of U.S. EPA.

Additional work determined to be necessary by Respondent and approved by U.S. EPA, or determined to be necessary by U.S. EPA

and requested of Respondent, shall be completed by Respondent in accordance with the standards and specifications determined or approved by EPA. Respondent shall propose and submit a schedule for additional work for U.S. EPA approval. U.S. EPA may modify or determine the schedule for additional work. Additional work shall be performed in a manner consistent with the purposes and objectives of this Consent Order.

10. Paperwork Reduction Act

The information required to be maintained or submitted pursuant to this Order is not subject to the Paperwork Reduction Act of 1980, 44 U.S.C. §§ 3501 et seq.

VI. COMPLIANCE WITH THIS ORDER

Violation of any provision of this Order may subject Respondent to civil penalties of up to twenty-five thousand dollars ($25,000) per day of violation or an amount up to 3 times the costs incurred by the Oil Spill Liability Trust Fund, as provided in Section 311(b)(7)(B) of CWA, 33 U.S.C. § 1321(b)(7)(B). Should Respondents violate this Order or any portion hereof, U.S. EPA may carry out the required actions unilaterally, pursuant to Section 311(c) of CWA, 33 U.S.C. § 1321(c), and/or may seek judicial enforcement of this Order pursuant to Section 311(e) of CWA, 33 U.S.C. § 1321(e).

VII. AUTHORITY OF THE U.S. EPA ON-SCENE COORDINATOR

The OSC shall be responsible for overseeing the proper and complete implementation of this Order. The OSC shall have the authority vested in an OSC by the NCP, 40 C.F.R. § 300.120, and the authority contained in Section 311(c) of CWA, 33 U.S.C. § 1321(c), including the authority to:

(1) remove or arrange for the removal of a discharge, and mitigate or prevent a substantial threat of a discharge, at any time;

(2) direct or monitor all Federal, State and private action to remove a discharge;

(3) remove and, if necessary, destroy a vessel discharging or threatening to discharge, by whatever means available; and

(4) determine when the removal is complete.

Absence of the OSC from the Facility shall not be cause for stoppage of work unless specifically directed by the OSC.

VIII. REIMBURSEMENT OF COSTS

Respondent shall reimburse United States, upon written demand, for all response costs incurred by the United States in overseeing Respondent's implementation of the requirements of this Order. U.S. EPA may submit to Respondent on a periodic basis a bill for all response costs incurred by the United States with respect to this Order. Response costs shall consist of all costs, including indirect costs, incurred by U.S. EPA, its employees, agents, contractors, consultants and other authorized and/or designated representatives in connection with U.S. EPA's oversight and or/performance of the Work Plan.

Respondents shall, within thirty (30) calendar days of receipt of a bill and accounting, remit a check for the amount of those costs made payable to the United States Coast Guard, or make such payment via electronic transfer, as directed by the U.S. EPA Project Coordinator. Interest at a rate established in 4 C.F.R. § 102.13, pursuant to 40 C.F.R. § 13.11(a), shall begin to accrue on the unpaid balance from the day after the expiration of the thirty-day period notwithstanding any dispute or an objection to any portion of the costs. Checks shall specifically reference the Facility and FPN (096001) and be sent to:

United States Coast Guard - Oil Pollution
Re: FPN 096001
P.O. Box 7777-W7615
Philadelphia, Pennsylvania 19175-7615

Respondent shall simultaneously transmit a copy of the check to the Director, Waste Management Division, U.S. EPA Region 5, 77 West Jackson Blvd., Chicago, Illinois, 60604-3590. Payments shall be designated as "Response Costs - Koppers Coal Tar Spill" and shall reference the payor's name and address and the docket number of this Order.

Interest at a rate established by the Department of the Treasury pursuant to 31 U.S.C. § 3717 and 4 C.F.R. § 102.13 shall begin to accrue on the unpaid balance from the day after the expiration of the 30 day period notwithstanding any dispute or an objection to any portion of the costs.

IX. RESERVATION OF RIGHTS AGAINST RESPONDENT

Except as specifically provided in this Order, nothing herein shall limit the power and authority of U.S. EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened discharge of oil at or from the Facility. Further, nothing herein shall prevent U.S. EPA from seeking legal or equitable relief to enforce the terms of this Order. U.S. EPA also reserves the right to take any other legal or equitable action as it deems appropriate and necessary,

or to require the Respondent in the future to perform additional activities pursuant to CWA or any other applicable law.

X. CLAIMS AGAINST OTHER PARTIES

Nothing in this Order shall constitute or be construed as a discharge from any claim, cause of action or demand in law or equity against any person, firm, partnership, venturer or corporation not bound by this Order for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, discharge, or disposal of any oil, solid wastes, pollutants, hazardous substances or contaminants found at, taken to, or taken from the Facility or for any other liability for costs or expenses related to the work.

XI. MODIFICATION

Modifications to any plan or schedule may be made in writing by the OSC or at the OSC's oral direction. If the OSC makes an oral modification, it will be memorialized in writing within 7 business days; however, the effective date of the modification shall be the date of the OSC's oral direction. Any other requirements of this Order may be modified in writing by mutual agreement of the parties.

If Respondent seeks permission to deviate from any approved plan or schedule, Respondent's Project Coordinator shall submit a written request to U.S. EPA for approval outlining the proposed modification and its basis.

No informal advice, guidance, suggestion, or comment by U.S. EPA regarding reports, plans, specifications, schedules, or any other writing submitted by the Respondent shall relieve Respondent of its obligations to obtain such formal approval as may be required by this Order, and to comply with all requirements of this Order unless it is formally modified.

XII. NOTICE OF COMPLETION

After submission of the Final Report, Respondent may request that EPA provide a Notice of Completion of the work required by this Order. If EPA determines, after EPA's review of the Final Report, that all work has been fully performed in accordance with this Order, except for certain continuing obligations required by this Order (e.g., record retention), EPA will provide written notice to the Respondent. If U.S. EPA determines that any removal activities have not been completed in accordance with this Order, U.S. EPA will notify the Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan if appropriate to correct such deficiencies. The Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the U.S. EPA

notice. Failure to implement the approved modified Work Plan shall be a violation of this Order.

XIII. SEVERABILITY

If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated by the court's order.

XIV. OPPORTUNITY TO CONFER

Within 3 business days after issuance of this Order, Respondent may request a conference with U.S. EPA. Any such conference shall be held within 5 business days from the date of the request, unless extended by agreement of the parties. At any conference held pursuant to the request, Respondent may appear in person or be represented by an attorney or other representative.

If a conference is held, Respondent may present any information, arguments or comments regarding this Order. Regardless of whether a conference is held, Respondent may submit any information, arguments or comments (including justifications for any assertions that the Order should be withdrawn against a Respondent), in writing to EPA within 2 business days following the conference, or within 7 business days of issuance of the Order if no conference is requested. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, and does not give Respondent a right to seek review of this Order. Requests for a conference shall be directed to Jeffrey M. Cox, Assistant Regional Counsel, at (312) 353-3112. Written submittal shall be directed as specified in Section V.3 of this Order.

XV. EFFECTIVE DATE

This Order shall be effective upon signature by the Director, Superfund Division, U.S. EPA Region 5.

IT IS SO ORDERED

BY: Wm. E. Muno

DATE: 10/5/95

William E. Muno, Director
Superfund Division
United States Environmental
Protection Agency
Region 5

INFORMATION SHOWN ON THIS FORM IS SUBJECT TO MINOR CHANGES.
OFFICIAL NRC REPORTS ARE SENT TO VNTSC ON A DAILY BASIS.

From: National Response Center
USCG HQ Washington, D.C.
1-800-424-8802

To: MR GEBIEN
U.S. EPA V
Incident Report # 306846

INCIDENT DESCRIPTION

*Report taken by MST3 BRIGHT at 00:22 on 09-SEP-95
Incident Type: PIPELINE
Incident Cause: EQUIPMENT FAILURE
Affected Area: CHICAGO SANITARY SHIPPING CANAL
The incident occurred on 08-SEP-95 at 20:15 local time.
Affected Medium: WATER

REPORTING PARTY

Name: MARK CILLEY
Organization: KOPPERS INDUSTRIES
Address: 3900 S LARAMIE AVE
CICERO, IL 60650
KOPPERS INDUSTRIES called for the responsible party.
Day Phone: (708)6565900
Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name: MARK CILLEY
Organization: KOPPERS INDUSTRIES
Address: 3900 S LARAMIE AVE
CICERO, IL 60650
y Phone: (708)6565900
ype of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

3900 S LARAMIE AVE
CICERO, IL 60650
County: COOK

RELEASED MATERIAL(S)

CHRIS Code: OCT OIL, MISC: COAL TAR
Qty Released: 0 UNK(S) Qty in Water: 0 UNK(S)

SOURCE/CAUSE OF INCIDENT

STORAGE TANK TRANSFER LINE RUPTURED AT A WELD JOINT

SEE ATTACHED NOTE

DAMAGE

Injuries:	Fatalities:	Evacuations:	Damages:	Air Close:	Road Close:
				N	N

REMEDIAL ACTIONS

RELEASE SECURED/BOOMS DEPLOYED/CLEAN-UP CREWS ENROUTE/CHIMS ON SCENE

NOTIFICATIONS BY CALLER

EPA: STATE: CG: Y OTHER: DESC: CHIMS

USCG MEADE

NOTIFICATIONS BY NRC

MSO CHICAGO PO MEADE
09-SEP-95 00:46
NOAA RPTS RGN V (1ST CLASS BB)
09-SEP-95 00:00 (202)2672165

9-12 10:00
BACK TO U.S. EPA
CALLED RICK KARL

INFORMATION SHOWN ON THIS FORM IS SUBJECT TO MINOR CHANGES.
OFFICIAL NRC REPORTS ARE SENT TO VNTSC ON A DAILY BASIS.

From: National Response Center
USCG HQ Washington, D.C.
1-800-424-8802

To: MR GEBIEN
U.S. EPA V
Incident Report # 306846

INCIDENT DESCRIPTION

*Report taken by MST3 BRIGHT at 00:22 on 09-SEP-95

NOTIFICATIONS BY NRC

IL EPA ERT ATTN: DENNIS AHLBERG
09-SEP-95 00:00 (217)7821431
IN DEPT ENV MNGMT ATTN: KEN RHAME
09-SEP-95 00:00 (317)2336358
U.S. EPA V MR GEBIEN

ADDITIONAL INFORMATION

SHEEN SIZE: UNKNOWN WILL NOTIFY: ESDA

***** END OF REPORT # 306846 *****

~~OSC~~

SPILL CALLED INTO REGION 5 BY USCG PO MEADE MSO CHICAGO ON 9/8/95 11:30pm. PO MEADE INDICATED RELEASE RESULTED IN SHEEN ON SANITARY SHIP CANAL. PO MEADE ISSUED NOTICE OF FEDERAL INTEREST. OSC NIED CONTACTED AT 11:35 pm. OSC NIED RESPONDED APPROX 12:15AM. HERITAGE ENVIRONMENTAL ON-SCENE AND DEPLOYED BOOM. MSO PO MEADE ALSO ON-SCENE. PER OSC NIED HOPPERS RESPONSE APPEARS ADEQUATE VIA HERITAGE ENVIR. OSC NIED WILL MAKE FOLLOW-UP VISITS TO SCENE ON 9/9/95.

INFORMATION SHOWN ON THIS FORM IS SUBJECT TO MINOR CHANGES.
OFFICIAL NRC REPORTS ARE SENT TO VNTSC ON A DAILY BASIS.

From: National Response Center
USCG HQ Washington, D.C.
1-800-424-8802 FTS 202-267-2675

To: MR LALL
U.S. EPA V
Incident Report # 308816

INCIDENT DESCRIPTION

*Report taken by MST2 EASON at 18:02 on 26-SEP-95, Incident Type: PIPELINE

Incident Cause: EQUIPMENT FAILURE
Affected Area: CHICAGO SANITARY SHIPPING CANAL
The incident occurred on 08-SEP-95 at 20:15 local time.
Affected Medium: WATER

REPORTING PARTY

Name: MARK CILLEY
Organization: KOPPERS INDUSTRIES
Address: 3900 S LARAMIE AVE
CICERO, IL 60650
KOPPERS INDUSTRIES called for the responsible party.
Day Phone: (708)6565900
Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name: MARK CILLEY
Organization: KOPPERS INDUSTRIES
Address: 3900 S LARAMIE AVE
CICERO, IL 60650
Day Phone: (708)6565900
Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

3900 S LARAMIE AVE
CICERO, IL 60650
County: COOK

RELEASED MATERIAL(S)

CHRIS Code: OCT OIL, MISC: COAL TAR
Qty Released: 0 UNK(S) Qty in Water: 0 UNK(S)

SOURCE/CAUSE OF INCIDENT

STORAGE TANK TRANSFER LINE RUPTURED AT A WELD JOINT

DAMAGE

Injuries:	Fatalities:	Evacuations:	Damages:	Air Close:	Road Close:
				N	N

REMEDIAL ACTIONS

RELEASE SECURED/BOOMS DEPLOYED/CLEAN-UP CREWS ENROUTE/CHIMS ON SCENE

NOTIFICATIONS BY CALLER

EPA: STATE: CG: Y OTHER: DESC: CHIMS

P C. Lall

NOTIFICATIONS BY NRC

U.S. EPA V

ADDITIONAL INFORMATION

SHEEN SIZE: UNKNOWN WILL NOTIFY: ESDA

GENERIC / UPDATE QUESTIONS & ANSWERS

1. WHAT WAS THE ORIGINAL CALL NUMBER?
   306846

2. ADDITIONAL INFORMATION
   QUANTITY IS NOW KNOWN 17,000 GALLONS

3. ADDITIONAL INFORMATION

B

APPENDIX B

Final Report
Koppers Industries, Inc.

LIST OF REPORTS SUBMITTED TO EPA

March 17, 1998
Stickney Tar Spill

(Complete attachments included with submittal except as otherwise noted)

TAB NO.	DATE	ITEM (submitted to U.S. EPA unless otherwise noted)	ATTACHMENTS (Included w/this final Report unless otherwise noted)	SUMMARY/REMARKS
1.	10-1-95	Work Plan and Site Safety Plan	Table of Contents Only	Body of Report Not Included (1 large volume)
2.	10-23-95	IEPA letter to KII setting discharge limitations		Letter sets effluent discharge limitations to Chicago Sanitary & Ship Canal for treatment of dredged materials.
3.	11-03-95	Progress Report	Dredge progress report; Frac. tank analyses; WWTP Flow log; WWTP outfall analyses; progress diagram; dredge progress sketch;	Report slow diving operations, discuss revised timeline
4.	11-22-95	Progress Report	WWTP Flow log; WWTP outfall analyses; progress diagram;	Report EMS dredge operations ceased; (Environmental + Marine Services)
5.	12-01-95	Progress Report	WWTP Flow log; WWTP Outfall Analyses; progress chart;	Discussion of Superior Dredging's continued dredging operations.
6.	12-11-95	Dredge Configuration	Dredge sketch; dredge progress diagram	Discuss dredging rigging, operation and traffic issues.
7.	12-15-95	Progress Report	Dredging Log; WWTP Flow log; WWTP outfall analyses; UWMs; progress chart	Discussion of Superior Dredging's continued dredging operations.
8.	12-28-95	Response to EPA Request for Information	Facility diagram; expense accounting; MWRD Permit; incident notes; incident logs; PPE lists; USCG statements; WWTP laboratory data sheets; effluent treatment system diagram. (Submitted in full)	Omitted From this Report
9.	12-29-95	Progress Report	WWTP flow log; WWTP outfall analyses; UWMs	Discussion of general progress.

TAB NO.	DATE	ITEM (submitted to U.S. EPA unless otherwise noted)	ATTACHMENTS (Included w/this final Report unless otherwise noted)	SUMMARY/REMARKS
10.	01-03-96	Dredge Configuration	Dredge configuration sketch	Discuss dredge rigging, placement, operation and oncoming traffic
11.	01-12-96	Progress Report	WWTP Flow log; WWTP outfall analyses; UWMs;	Discussion of general progress.
12.	01-26-96	Progress Report	No attachments	EMT analyses delayed
13.	1-31-96	KII's Confirmation of Cleanup Sampling and Quality Assurance Project Plan	Table of Contents	Document omitted – Table of Contents Only.
14.	1-31-96	Confirmation of Cleanup Sampling and Quality Assurance Project Plan	Table of Contents Only	Body of Report Not Included (1 large volume)
15.	02-12-96	Progress Report	WWTP Flow log; WWTP outfall analyses;	Discussion of general progress
16.	02-23-96	Progress Report	WWTP Flow log; WWTP outfall analyses; progress chart; UWMs; progress diagrams;	Discussion of general progress; cleanup sampling plan under revision.
17.	2-29-96	Letter to EPA regarding videotaping		KII's response to EPA's request to videotape ongoing cleanup efforts;
18.	3-15-96	Progress Report	UWMs; WWTP Flow log; WWTP Effluent Analyses; second revised confirmation sampling plan	General discussion of dredging progress; submit second revised confirmation sampling plan
19.	3-20-96	Letter from EPA commenting on Draft Confirmation of Cleanup Sampling and Quality Assurance Project Plan		Short comment letter from EPA requesting two changes to draft plan.
20.	3-31-96	Progress Report	UWMs; WWTP Flow log; WWTP effluent analyses; revised sampling collection procedures w/diagrams;	General discussion of dredging progress; confirm diver test to determine integrity of sheet piling repairs;
21.	5-2-96	Letter from EPA regarding continuation of dredging.		Discusses recent sediment analyses and recommends further dredging and requests extension of dredging confirmation of cleanup sampling plan to downstream locations.

TAB NO.	DATE	ITEM (submitted to U.S. EPA unless otherwise noted)	ATTACHMENTS (Included w/this final Report unless otherwise noted)	SUMMARY/REMARKS
22.	5-13-96	Letter to EPA discussing Dredging Issues	Dredging Pass Charts (2); Crude Tar constituent range data sheets; constituent comparison sheets (fresh product v. sediment samples); spilled material removal calculation memo; map showing extent of contamination (11/27/95)	Letter submitted to EPA at meeting of KII representatives with EPA on May 13, 1996 regarding the continuation of dredging. Memo outlines reasons that KII believed that further dredging of the Canal was unnecessary.
23.	5-15-96	Progress Report	UWMs; WWTP flow log; WWTP effluent analyses;	General discussion of dredging and treatment progress and notice of completion of cleanup confirmation sampling plan.
24.	5-24-96	USCG Oil Sample Analysis Report	Identification, chain-of-custody, and laboratory data sheets	Results from U.S. Coast Guard's analysis of Canal sediment sample.
25.	7-25-96	KII's submission of laboratory analyses of May 19, 1996 Canal sediment samples	Report dated 7/18/96 by A.D. Little, Inc., entitled, "Report on Chemical Fingerprinting of Sediment and Coal Tar Samples", including attachments.	Cover letter to July 18, 1996 Arthur D. Little Report .
26.	8-30-96	Notice of KII Intent to Remove Boom		Notice by KII to EPA of KII's intent to remove Canal boom.
27.	8-30-96	Notice of KII Intent to Remove and Dismantle Pipeline		Notice by KII to EPA of intention to remove and dismantle pipeline that was involved in the September 1996 spill.
28.	9-9-96	U.S. EPA's Response to 8/30/96 EPA letter Re: Boom Maintenance		Memorializes KII/EPA agreement to maintain boom in place pending meeting between parties.
29.	9-25-96	Progress Report	UWMs; WWTP flow log; WWTP outfall analyses; USCG Oil Spill Handling Guide;	Discussion of general progress; discussion o taking test core sediment sample to perform analysis to determine age of spilled material
30.	10-31-96	Final Sampling & Analysis Plan to EPA		KII's submission of A.D. Little & Company's 10/31/96 Final Sampling and Analysis Plan
31.	11-1-96	Letter to EPA		Follow-up submission to KII's 10/31/96 Sampling and Analysis Plan, containing Sampling and Analysis Schedule and Coordination.

TAB NO.	DATE	ITEM (submitted to U.S. EPA unless otherwise noted)	ATTACHMENTS (Included w/this final Report unless otherwise noted)	SUMMARY/REMARKS
32.	11-1-96	Second Letter to EPA notifying of intention to remove pipeline		Letter notifying EPA of dismantling of pipeline involved in spill beginning November 12, 1996.
33.	11-26-96	A.D. Little Fax to U.S. EPA		A.D. Little's transmission of preliminary qualitative data from equipment blanks and a sample from the cleanup project
34.	1-31-97	KII's submission of Final Report of A.D. Little & Company	A.D. Little Final Report dated 1/30/97	Cover letter to A.D. Little's final report, "Chemical Fingerprinting of Sediment Samples Collected at the Chicago Sanitary and Ship Canal"
35.	3-13-97	EPA letter to KII		EPA letter granting KII permission to remove 3 booms and reposition 1 boom, and request that KII maintain a daily inspection record
36.	10-10-97	Letter from U.S. EPA		EPA requesting analytical results of samples taken June 13, 1997.
37.	10-21-97	A.D. Little Sheen/Sediment Sample Analysis	Arthur D. Little Report dated 10/17/97	KII's submission of 10/17/97 Arthur D. Little Report containing analysis of June 1997 sheen/sediment sampling.
38.	10-23-97	Proposal for Work from A.D. Little		Scope of Work by A.D. Little for preparation of Sampling and Analysis Plan, data interpretation, and Report. (Accepted by KII on 10/24/96)
39.	1-29-98	U.S. EPA letter requesting Final Report		EPA letter commenting that the time is appropriate for submission of KII Final Report on cleanup pursuant to Administrative Order
40.	3-25-98	Boom Maintenance Log		KII's Boom Maintenance Log (not previously submitted to EPA)

C

APPENDIX C

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
December 1995

	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
Full Version)	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		33	ACCOUNT # CORRECTIONS	0	0	7,518	0	0	0	7,518
1322	60			25		33	ACCOUNT # CORRECTIONS	0	0	1,765	0	0	0	1,765
1322	60			25		32	BEAR COMMUNICATIONS IN	0	0	0	0	2,499	0	2,499
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	64,385	64,385
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	3,644	3,644
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	7,844	7,844
1322	60			25		32	CALGON CARBON CORP	0	0	0	23,808	0	0	23,808
1322	60			25		32	CALGON CARBON CORP	0	0	0	30,264	0	0	30,264
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	3,644	0	3,644
1322	60			25		32	COUNTY ENVIRONMENTAL	0	0	0	730	0	0	730
1322	60			25		32	COUNTY ENVIRONMENTAL	0	0	0	0	0	365	365
1322	60			25		32	COUNTY ENVIRONMENTAL L	0	0	0	0	0	1,070	1,070
1322	60			25		32	COUNTY ENVIRONMENTAL L	0	0	0	0	0	520	520
1322	60			25		32	DREISILKER ELECTRIC MO	0	0	0	0	0	667	667
1322	60			25		32	DREISILKER ELECTRIC MO	0	0	0	0	0	589	589
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	0	0	282,140	282,140
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	0	138,427	0	138,427
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	114,479	0	0	114,479
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	107,813	0	0	107,813
322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	1,890	0	0	1,890
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	9,765	0	9,765
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	8,795	0	8,795
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	4,884	0	4,884
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	13,939	0	0	13,939
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	208	0	208
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	8,256	0	8,256
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	5,692	0	5,692
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	501	0	501
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	2,665	0	2,665
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	2,664	0	2,664
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	3,606	0	3,606
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	2,361	0	2,361
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	3,979	0	3,979
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	4,146	0	4,146
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	1,434	0	1,434
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	400	400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	354	354
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	1,504	1,504
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	5,559	5,559
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	900	900
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	5,874	5,874

	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
Full Version)	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	870	870
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	1,154	1,154
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	652	652
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	435	435
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	4,623	0	4,623
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	1,060	1,060
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	680	680
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	834	834
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	501	501
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,485	2,485
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	3,000	3,000
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	1,087	1,087
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,100	2,100
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	3,400	3,400
322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	410	410
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,124	2,124
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	1,830	1,830
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	3,932	0	0	3,932
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	5,536	0	0	5,536
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	329	0	0	329
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,002	0	0	1,002
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	3,040	0	0	3,040
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	354	0	0	354
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	392	0	0	392
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	4,030	0	0	4,030
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,440	0	0	2,440
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	329	0	0	329
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,818	0	0	1,818
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,058	0	0	2,058
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	3,421	0	0	3,421

Full Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	All	All	All

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1322	60			25	32	F G	ENTERPRISES INC	0	0	0	1,504	0	0	1,504
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	1,062	0	0	1,062
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	996	0	0	996
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	4,602	0	0	4,602
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	329	0	0	329
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	2,940	0	0	2,940
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	4,400	0	0	4,400
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	3,390	0	0	3,390
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	4,596	0	0	4,596
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	7,007	0	0	7,007
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	4,212	0	0	4,212
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	5,210	0	0	5,210
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	4,606	0	0	4,606
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	4,298	0	0	4,298
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	1,716	0	0	1,716
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	2,982	0	0	2,982
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	4,658	0	0	4,658
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	2,349	0	0	2,349
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	5,924	0	0	5,924
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	4,472	0	0	4,472
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	2,870	0	0	2,870
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	329	0	0	329
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	3,874	0	0	3,874
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	10,329	0	0	10,329
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	4,266	0	0	4,266
1322	60			25	32	F G	ENTERPRISES INC	0	0	0	8,538	0	0	8,538
1322	60			25	32	GILCO	SCAFFOLDING CO	0	0	0	0	562	0	562
1322	60			25	32	HERITAGE		0	0	0	0	0	106,559	106,559
1322	60			25	32	HERITAGE		0	0	0	0	0	66,576	66,576
1322	60			25	32	HERITAGE		0	0	0	0	0	56,777	56,777
1322	60			25	32	HERITAGE		0	0	0	0	0	155,149	155,149
1322	60			25	32	HERITAGE		0	0	0	160,512	0	0	160,512
1322	60			25	32	HERITAGE		0	0	0	0	133,794	0	133,794
1322	60			25	32	HERITAGE		0	0	0	108,281	0	0	108,281
1322	60			25	32	HOLIDAY	INN LAGRANGE C	0	0	0	0	768	0	768
1322	60			25	32	HOLIDAY	INN LAGRANGE C	0	0	0	0	775	0	775
1322	60			25	32	HOLIDAY	INN LAGRANGE C	0	0	0	743	0	0	743
1322	60			25	32	HOLIDAY	INN LAGRANGE C	0	0	0	753	0	0	753
1322	60			25	32	HOLIDAY	INN LAGRANGE C	0	0	0	1,012	0	0	1,012
1322	60			25	32	HOLIDAY	INN LAGRANGE C	0	0	0	784	0	0	784
1322	60			25	32	HOLIDAY	INN LAGRANGE C	0	0	0	752	0	0	752

	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
ull Version)	1322	60	All	All	25	All	All	All

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1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	732	0	0	732
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	283	0	0	283
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	793	0	0	793
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	723	0	0	723
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	753	0	0	753
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	765	0	0	765
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	710	0	0	710
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	732	0	0	732
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	898	0	0	898
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	561	561
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	149	149
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	582	582
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	860	860
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	145	145
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	72	72
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	690	690
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	559	559
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	372	372
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	754	754
322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	880	0	880
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	904	0	904
1322	60			25		33	HYRE ENTRY FROM R FOST	0	0	0	0	0	432	432
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	0	444	444
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	695	0	695
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	131	0	131
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	0	198	198
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	0	186	186
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	238	0	0	238
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	255	0	0	255
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	984	0	0	984
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	4,465	0	0	0	4,465
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	1,035	0	0	1,035
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	1,357	0	0	1,357
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	30	0	0	30
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	341	0	341
1322	60			25		32	J B BRENNY & ASSOC	0	0	0	0	32	0	32
1322	60			25		32	J B BRENNY & ASSOC	0	0	0	0	27	0	27
1322	60			25		32	JOLIET VALVES INC	0	0	0	69	0	0	69
1322	60			25		32	JOLIET VALVES INC	0	0	0	30	0	0	30
1322	60			25		32	JOLIET VALVES INC	0	0	35	0	0	0	35
1322	60			25		32	JOLIET VALVES INC	0	0	0	1,408	0	0	1,408

Full Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	All	All	All

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1322	60			25		32	JOLIET VALVES INC	0	0	0	108	0	0	108
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	109	0	109
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	867	0	867
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	307	0	307
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	10	0	10
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	28	0	28
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	305	0	305
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	102	0	102
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	42	0	42
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	333	0	333
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	68	68
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	0	440	0	440
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	23,710	0	0	23,710
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	440	0	0	440
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	2,400	0	0	2,400
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	4,450	0	0	4,450
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	4,882	0	4,882
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	300	0	0	300
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	6,000	6,000
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	3,478	3,478
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	3,812	3,812
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	2,512	2,512
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	6,105	6,105
1322	60			25		32	MACK PUMP & EQUIPMENT	0	0	0	0	0	1,634	1,634
1322	60			25		32	MACK PUMP & EQUIPMENT	0	0	0	0	1,008	0	1,008
1322	60			25		32	MAURITZON INC	0	0	0	0	0	27	27
1322	60			25		32	MCJUNKIN CORP	0	0	0	61	0	0	61
1322	60			25		32	MCMASTER-CARR SUPPLY C	0	0	0	1,443	0	0	1,443
1322	60			25		32	MCMASTER-CARR SUPPLY C	0	0	0	46	0	0	46
1322	60			25		32	MCMASTER-CARR SUPPLY C	0	0	0	370	0	0	370
1322	60			25		32	MCMASTER-CARR SUPPLY C	0	0	0	416	0	0	416
1322	60			25		32	MILLTRONICS INC	0	0	0	2,212	0	0	2,212
1322	60			25		32	MOORE PRODUCTS CO	0	0	0	390	0	0	390
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	4,800	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	80	80
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	4,800	0	4,800
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	31	0	0	31
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	1,606	0	0	1,606
1322	60			25		32	PORTABLE TOOL SALES &	0	0	1,002	0	0	0	1,002
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	0	7	0	7
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	0	316	0	316

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CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
December 1995

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	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	287	0	0	287
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	44	0	0	44
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	4,173	0	0	4,173
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	8,623	0	0	8,623
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	1,704	0	0	1,704
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	0	662	662
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	6,295	0	6,295
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	4,720	0	4,720
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	936	0	936
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	0	1,782	1,782
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	0	4,715	4,715
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	0	1,629	1,629
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	0	452	452
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	0	2,922	2,922
1322	60			25		32	SURE-SEAL INC	0	0	0	0	1,066	0	1,066
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	4,851	4,851
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	1,499	1,499
1322	60			25		55	TAR HOURLY PAYROLL	0	0	6,371	0	0	0	6,371
1322	60			25		55	TAR HOURLY PAYROLL	0	0	16,530	0	0	0	16,530
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	11,435	0	0	11,435
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	27,531	0	0	27,531
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	5,585	0	5,585
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	12,374	0	12,374
1322	60			25		32	W W GRAINGER INC	0	0	0	100	0	0	100
1322	60			25		32	W W GRAINGER INC	0	0	0	1,070	0	0	1,070
1322	60			25		32	W W GRAINGER INC	0	0	0	26	0	0	26
1322	60			25		32	W W GRAINGER INC	0	0	0	301	0	0	301
1322	60			25		32	W W GRAINGER INC	0	0	0	52	0	0	52
1322	60			25		32	W W GRAINGER INC	0	0	0	6	0	0	6
1322	60			25		32	W W GRAINGER INC	0	0	0	0	0	87	87
1322	60			25		32	W W GRAINGER INC	0	0	0	0	1,002	0	1,002
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	4	0	4
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	287	0	287
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	145	0	145
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	287	0	287
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	4	0	4
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	287	0	0	287
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	287	0	0	287
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	145	0	145
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	283	0	0	283
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	1,409	0	0	1,409

Full Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	239	0	239
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	171	0	171
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	35	0	0	35
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	180	0	0	180
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	0	400	400
TOTAL LOCATION (0060) STICKNEY INDUSTRIAL								0	0	37,686	803,511	393,874	863,417	2,098,488
TOTAL REPORT								0	0	37,686	803,511	393,874	863,417	2,098,488

CARBON MATERIALS AND CHEMICALS

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	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
(Full Version)	1322	60	All	All	25	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
1322	60			25		32	AMERICAN DISPOSAL SERV	0	0	0	5,885	0	0	5,885
1322	60			25		32	AMERICAN DISPOSAL SERV	0	0	0	5,350	0	0	5,350
1322	60			25		32	AMERICAN DISPOSAL SERV	0	0	0	11,770	0	0	11,770
1322	60			25		32	AMERICAN DISPOSAL SERV	0	0	0	0	20,330	0	20,330
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	11,488	0	11,488
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	11,488	0	11,488
1322	60			25		32	CALGON CARBON CORP	0	0	0	7,844	0	0	7,844
1322	60			25		32	CALGON CARBON CORP	0	0	0	7,844	0	0	7,844
1322	60			25		32	CALGON CARBON CORP	15,641-	0	0	0	0	0	15,641-
1322	60			25		32	CALGON CARBON CORP	52,768-	0	0	0	0	0	52,768-
1322	60			25		32	CALGON CARBON CORP	68,409	0	0	0	0	0	68,409
1322	60			25		32	CALGON CARBON CORP	0	11,144	0	0	0	0	11,144
1322	60			25		32	CALGON CARBON CORP	0	31,652	0	0	0	0	31,652
1322	60			25		32	CLAYTON ENVIRONMENTAL	0	0	0	0	57,314	0	57,314
1322	60			25		32	CLAYTON ENVIRONMENTAL	0	0	4,945	0	0	0	4,945
1322	60			25		33	CODING CORRECTIONS JV	3,470	0	0	0	0	0	3,470
1322	60			25		32	CONTINENTAL STEEL TANK	0	0	0	0	3,075	0	3,075
1322	60			25		33	CORR. DISTR. JV By STA	0	0	0	0	57,314-	0	57,314-
1322	60			25		33	CORRECT ACCT DIST JV B	0	0	0	0	0	1,294	1,294
1322	60			25		32	COUNTY ENVIRONMENTAL L	0	0	3,210	0	0	0	3,210
	60			25		32	COUNTY ENVIRONMENTAL L	0	0	20,865	0	0	0	20,865
1322	60			25		32	COUNTY ENVIRONMENTAL L	10,165	0	0	0	0	0	10,165
1322	60			25		32	COUNTY ENVIRONMENTAL L	12,305	0	0	0	0	0	12,305
1322	60			25		32	COUNTY ENVIRONMENTAL L	19,260	0	0	0	0	0	19,260
1322	60			25		32	ENGINEERING & TESTING	0	1,898	0	0	0	0	1,898
1322	60			25		32	ENGINEERING & TESTING	0	0	0	0	655	0	655
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	0	0	22,863	22,863
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	1,725	1,725
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	4,780	4,780
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	7,386	0	0	7,386
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	3,596	0	3,596
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	3,910	0	3,910
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	5,214	0	0	0	5,214
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	4,378	0	0	0	4,378
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	1,200	0	0	0	1,200
1322	60			25		32	ENVIRONMENTAL MONITORI	1,572	0	0	0	0	0	1,572
1322	60			25		32	ENVIRONMENTAL MONITORI	5,564	0	0	0	0	0	5,564
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	1,416	0	0	0	0	0	1,416
1322	60			25		32	F G ENTERPRISES INC	450	0	0	0	0	0	450
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400

Koppers Industries Inc.
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1322	60	All	All	25	All	All	JV# 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
1322	60			25	32	F	G ENTERPRISES INC	854	0	0	0	0	0	854
1322	60			25	32	F	G ENTERPRISES INC	630	0	0	0	0	0	630
1322	60			25	32	F	G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	2,106	0	0	0	0	0	2,106
1322	60			25	32	F	G ENTERPRISES INC	2,625	0	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	940	0	0	0	0	0	940
1322	60			25	32	F	G ENTERPRISES INC	420	0	0	0	0	0	420
1322	60			25	32	F	G ENTERPRISES INC	1,062	0	0	0	0	0	1,062
1322	60			25	32	F	G ENTERPRISES INC	2,005	0	0	0	0	0	2,005
1322	60			25	32	F	G ENTERPRISES INC	354	0	0	0	0	0	354
1322	60			25	32	F	G ENTERPRISES INC	420	0	0	0	0	0	420
1322	60			25	32	F	G ENTERPRISES INC	435	0	0	0	0	0	435
1322	60			25	32	F	G ENTERPRISES INC	2,625	0	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	9,500	0	0	0	0	0	9,500
1322	60			25	32	F	G ENTERPRISES INC	405	0	0	0	0	0	405
1322	60			25	32	F	G ENTERPRISES INC	250	0	0	0	0	0	250
1322	60			25	32	F	G ENTERPRISES INC	710	0	0	0	0	0	710
1322	60			25	32	F	G ENTERPRISES INC	960	0	0	0	0	0	960
1322	60			25	32	F	G ENTERPRISES INC	501	0	0	0	0	0	501
1322	60			25	32	F	G ENTERPRISES INC	630	0	0	0	0	0	630
	60			25	32	F	G ENTERPRISES INC	450	0	0	0	0	0	450
1322	60			25	32	F	G ENTERPRISES INC	2,625	0	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	450	0	0	0	0	0	450
1322	60			25	32	F	G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	2,996	0	0	0	0	0	2,996
1322	60			25	32	F	G ENTERPRISES INC	450	0	0	0	0	0	450
1322	60			25	32	F	G ENTERPRISES INC	420	0	0	0	0	0	420
1322	60			25	32	F	G ENTERPRISES INC	1,734	0	0	0	0	0	1,734
1322	60			25	32	F	G ENTERPRISES INC	2,114	0	0	0	0	0	2,114
1322	60			25	32	F	G ENTERPRISES INC	1,500	0	0	0	0	0	1,500
1322	60			25	32	F	G ENTERPRISES INC	2,451	0	0	0	0	0	2,451
1322	60			25	32	F	G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	2,625	0	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	1,002	0	0	0	0	0	1,002
1322	60			25	32	F	G ENTERPRISES INC	1,062	0	0	0	0	0	1,062
1322	60			25	32	F	G ENTERPRISES INC	602	0	0	0	0	0	602
1322	60			25	32	F	G ENTERPRISES INC	600	0	0	0	0	0	600
1322	60			25	32	F	G ENTERPRISES INC	0	2,010	0	0	0	0	2,010
1322	60			25	32	F	G ENTERPRISES INC	0	708	0	0	0	0	708
1322	60			25	32	F	G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	872	0	0	0	0	872

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	1322	60	All	All	25	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
1322	60			25	32	F	G ENTERPRISES INC	0	1,376	0	0	0	0	1,376
1322	60			25	32	F	G ENTERPRISES INC	0	1,074	0	0	0	0	1,074
1322	60			25	32	F	G ENTERPRISES INC	0	708	0	0	0	0	708
1322	60			25	32	F	G ENTERPRISES INC	354	0	0	0	0	0	354
1322	60			25	32	F	G ENTERPRISES INC	804	0	0	0	0	0	804
1322	60			25	32	F	G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	2,625	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	2,625	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	488	0	0	0	0	488
1322	60			25	32	F	G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	2,625	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	2,775	0	0	0	0	2,775
1322	60			25	32	F	G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	216	0	0	0	0	216
1322	60			25	32	F	G ENTERPRISES INC	0	0	664	0	0	0	664
1322	60			25	32	F	G ENTERPRISES INC	0	0	780	0	0	0	780
1322	60			25	32	F	G ENTERPRISES INC	0	0	3,672	0	0	0	3,672
1322	60			25	32	F	G ENTERPRISES INC	0	0	2,400	0	0	0	2,400
1	60			25	32	F	G ENTERPRISES INC	0	0	2,160	0	0	0	2,160
1322	60			25	32	F	G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	2,625	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	2,625	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	354	0	0	0	0	354
1322	60			25	32	F	G ENTERPRISES INC	0	1,002	0	0	0	0	1,002
1322	60			25	32	F	G ENTERPRISES INC	0	2,625	0	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	1,709	0	0	0	0	1,709
1322	60			25	32	F	G ENTERPRISES INC	0	1,504	0	0	0	0	1,504
1322	60			25	32	F	G ENTERPRISES INC	0	354	0	0	0	0	354
1322	60			25	32	F	G ENTERPRISES INC	0	435	0	0	0	0	435
1322	60			25	32	F	G ENTERPRISES INC	0	361	0	0	0	0	361
1322	60			25	32	F	G ENTERPRISES INC	0	756	0	0	0	0	756
1322	60			25	32	F	G ENTERPRISES INC	0	708	0	0	0	0	708
1322	60			25	32	F	G ENTERPRISES INC	0	178	0	0	0	0	178
1322	60			25	32	F	G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	840	0	0	0	0	840
1322	60			25	32	F	G ENTERPRISES INC	0	896	0	0	0	0	896
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,320	0	0	1,320
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,625	0	0	2,625

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(Full Version)	1322	60	All	All	25	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
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	232	0	0	232
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,314	0	0	1,314
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,625	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	1,785	0	0	0	1,785
1322	60			25	32	F	G ENTERPRISES INC	0	0	2,400	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	848	0	0	0	848
1322	60			25	32	F	G ENTERPRISES INC	0	0	2,400	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	2,400	0	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	1,179	0	0	0	1,179
1322	60			25	32	F	G ENTERPRISES INC	0	0	2,625	0	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	0	1,304	0	0	0	1,304
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	696	0	0	696
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	743	0	0	743
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,190	0	0	2,190
1	60			25	32	F	G ENTERPRISES INC	0	0	0	2,625	0	0	2,625
13[illegible]	60			25	32	F	G ENTERPRISES INC	0	0	0	456	0	0	456
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,377	0	0	1,377
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,625	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,408	0	0	1,408
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,704	0	0	1,704
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,625	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,088	0	0	1,088
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,625	0	0	2,625
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	696	0	0	696
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,368	0	0	1,368
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	367	0	0	367
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	1,328	0	0	1,328
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	912	0	0	912
1322	60			25	32	F	G ENTERPRISES INC	0	0	0	432	0	0	432

(F	Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
		1322	60	All	All	25	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
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,169	0	0	2,169
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,625	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,085	0	0	2,085
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,400	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	944	0	944
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	4,725	0	4,725
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	2,400	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	1,112	0	1,112
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	232	0	232
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	1,772	0	1,772
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	2,175	0	2,175
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,625	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	1,328	1,328
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	2,400	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	448	0	448
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	4,725	0	4,725
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	2,400	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	912	0	912
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	448	448
1[illegible]	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	4,725	4,725
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	2,925	2,925
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	680	680
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	178	178
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	984	984
1322	60			25		32	HERITAGE	0	0	0	0	0	45,350	45,350
1322	60			25		32	HERITAGE	0	0	0	0	0	81,949	81,949
1322	60			25		32	HERITAGE	0	0	0	0	0	221,596	221,596
1322	60			25		32	HERITAGE	0	0	0	0	0	21,922	21,922
1322	60			25		32	HERITAGE	0	0	0	0	61,492	0	61,492
1322	60			25		32	HERITAGE	0	0	0	221,075	0	0	221,075
1322	60			25		32	HERITAGE	0	0	0	212,085	0	0	212,085
1322	60			25		32	HERITAGE	0	0	0	58,799	0	0	58,799
1322	60			25		32	HERITAGE	0	39,632	0	0	0	0	39,632
1322	60			25		32	HERITAGE	0	121,512	0	0	0	0	121,512
1322	60			25		32	HERITAGE	0	81,995	0	0	0	0	81,995
1322	60			25		32	HERITAGE	349,788	0	0	0	0	0	349,788
1322	60			25		32	IMPERIAL CRANE SERVICE	0	2,600	0	0	0	0	2,600
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	3,944	0	0	0	0	3,944
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	293	0	0	0	0	293
1322	60			25		32	INDUSTRIAL SERVICE PRO	80	0	0	0	0	0	80

CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
June 1995

Requested By ALIOTO

	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
(Full Version)	1322	60	All	All	25	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
1322	60			25		32	JOLIET VALVES INC	0	0	0	18	0	0	18
1322	60			25		32	JOLIET VALVES INC	0	0	0	3	0	0	3
1322	60			25		32	JOLIET VALVES INC	0	0	0	348	0	0	348
1322	60			25		32	JOLIET VALVES INC	0	0	0	3,547	0	0	3,547
1322	60			25		32	JOLIET VALVES INC	0	0	0	28	0	0	28
1322	60			25		32	JOLIET VALVES INC	0	0	0	220	0	0	220
1322	60			25		32	JOLIET VALVES INC	0	0	0	357	0	0	357
1322	60			25		32	JOLIET VALVES INC	0	0	0	15	0	0	15
1322	60			25		32	JOLIET VALVES INC	0	0	0	1,217	0	0	1,217
1322	60			25		32	LA GRANGE CRANE SERVIC	1,975	0	0	0	0	0	1,975
1322	60			25		32	LA GRANGE CRANE SERVIC	875	0	0	0	0	0	875
1322	60			25		32	LA GRANGE CRANE SERVIC	0	605	0	0	0	0	605
1322	60			25		32	PATTEN POWER SYSTEMS	0	4,800	0	0	0	0	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	4,800	0	0	0	0	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	80	0	0	0	0	80
1322	60			25		32	PATTEN POWER SYSTEMS	80	0	0	0	0	0	80
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	4,800	0	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	4,800	0	0	0	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	4,800	0	0	4,800
1322	60			25		32	PEERLESS METAL PRODUCT	3,712	0	0	0	0	0	3,712
[illegible]	60			25		32	PORTABLE TOOL SALES &	505	0	0	0	0	0	505
1322	60			25		32	PORTABLE TOOL SALES &	275	0	0	0	0	0	275
1322	60			25		32	PORTABLE TOOL SALES &	741	0	0	0	0	0	741
1322	60			25		32	PORTABLE TOOL SALES &	110	0	0	0	0	0	110
1322	60			25		32	SCHECK MECHANICAL CORP	12,585	0	0	0	0	0	12,585
1322	60			25		32	SCHECK MECHANICAL CORP	0	1,029	0	0	0	0	1,029
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	1,500	0	0	0	1,500
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	3,335	0	0	3,335
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	512	0	0	512
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	350	0	350
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	61	61
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	502	502
1322	60			25		55	TAR HOURLY PAYROLL	1,116	0	0	0	0	0	1,116
1322	60			25		55	TAR HOURLY PAYROLL	294	0	0	0	0	0	294
1322	60			25		55	TAR HOURLY PAYROLL	0	529	0	0	0	0	529
1322	60			25		55	TAR HOURLY PAYROLL	0	3,789	0	0	0	0	3,789
1322	60			25		55	TAR HOURLY PAYROLL	0	0	436	0	0	0	436
1322	60			25		55	TAR HOURLY PAYROLL	0	0	2,873	0	0	0	2,873
1322	60			25		32	UNITED PARCEL SERVICE	0	5	0	0	0	0	5
1322	60			25		32	WASTE SYSTEMS INC	13,750	0	0	0	0	0	13,750
1322	60			25		32	WIRTZ RENTALS CO	120	0	0	0	0	0	120

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Requested By ALIOTO June 1996

(F Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	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
1322	60			25		32	WIRTZ RENTALS CO	120	0	0	0	0	0	120
1322	60			25		32	WIRTZ RENTALS CO	539	0	0	0	0	0	539
1322	60			25		32	WIRTZ RENTALS CO	140	0	0	0	0	0	140
1322	60			25		32	WIRTZ RENTALS CO	0	120	0	0	0	0	120
1322	60			25		32	WIRTZ RENTALS CO	0	0	120	0	0	0	120
TOTAL LOCATION (0060) STICKNEY INDUSTRIAL								502,778	367,101	74,158	626,523	143,029	418,110	2,131,699
TOTAL REPORT								502,778	367,101	74,158	626,523	143,029	418,110	2,131,699

Journal Voucher Inquiry Report

Requested By ALIOTO December 1996

(F ^^ Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		32	AMERICAN DISPOSAL SERV	0	0	0	0	0	0	5,350
1322	60			25		32	AMERICAN DISPOSAL SERV	0	0	0	0	0	0	11,770
1322	60			25		32	AMERICAN DISPOSAL SERV	0	0	0	0	0	0	20,330
1322	60			25		32	AMERICAN DISPOSAL SERV	0	6,420	0	0	0	0	6,420
1322	60			25		32	AMERICAN DISPOSAL SERV	0	6,420	0	0	0	0	6,420
1322	60			25		32	AMERICAN DISPOSAL SERV	0	8,560	0	0	0	0	8,560
1322	60			25		32	AMERICAN DISPOSAL SERV	0	2,140	0	0	0	0	2,140
1322	60			25		32	AMERICAN DISPOSAL SERV	0	0	0	0	0	0	5,885
1322	60			25		32	ARTHUR D LITTLE INC	0	0	0	5,500	0	0	5,500
1322	60			25		32	CALGON CARBON CORP	0	0	0	4,200	0	0	4,200
1322	60			25		32	CALGON CARBON CORP	0	0	0	7,288	0	0	7,288
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	388	0	388
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	406	0	406
1322	60			25		32	CALGON CARBON CORP	0	0	0	128	0	0	128
1322	60			25		32	CALGON CARBON CORP	0	11,488	0	0	0	0	11,488
1322	60			25		32	CALGON CARBON CORP	0	11,488	0	0	0	0	11,488
1322	60			25		32	CALGON CARBON CORP	0	11,488	0	0	0	0	11,488
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	0	15,641-
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	0	52,768-
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	0	68,409
1	60			25		32	CALGON CARBON CORP	0	0	0	0	0	0	11,488
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	0	11,488
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	0	7,844
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	0	7,844
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	0	11,144
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	0	31,652
1322	60			25		44	CASH RECEIPTS	0	0	0	0	0	1,725,000-	1,725,000-
1322	60			25		32	CLAYTON ENVIRONMENTAL	0	0	0	0	0	0	57,314
1322	60			25		32	CLAYTON ENVIRONMENTAL	0	0	0	0	0	0	4,945
1322	60			25		33	CODING CORRECTIONS JV	0	0	0	0	0	0	3,470
1322	60			25		32	CONTINENTAL STEEL TANK	0	0	0	0	0	0	3,075
1322	60			25		33	CORR. DISTR. JV By STA	0	0	0	0	0	0	57,314-
1322	60			25		33	CORRECT ACCT DIST JV 8	0	0	0	0	0	0	1,294
1322	60			25		32	COUNTY ENVIRONMENTAL L	0	0	0	0	0	0	12,305
1322	60			25		32	COUNTY ENVIRONMENTAL L	0	0	0	0	0	0	19,260
1322	60			25		32	COUNTY ENVIRONMENTAL L	0	0	0	0	0	0	3,210
1322	60			25		32	COUNTY ENVIRONMENTAL L	0	0	0	0	0	0	20,865
1322	60			25		32	COUNTY ENVIRONMENTAL L	0	0	0	0	0	0	10,165
1322	60			25		32	ENGINEERING & TESTING	0	0	0	0	0	0	1,898
1322	60			25		32	ENGINEERING & TESTING	0	0	0	0	0	6,153	6,153
1322	60			25		32	ENGINEERING & TESTING	0	0	0	0	0	0	655

CARBON MATERIALS AND CHEMICALS
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(Full Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	0	0	0	22,863
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	4,780
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	1,725
1322	60			25		32	ENVIRONMENTAL MONITORI	4,345	0	0	0	0	0	4,345
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	3,596
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	3,910
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	7,386
1322	60			25		32	ENVIRONMENTAL MONITORI	0	1,304	0	0	0	0	1,304
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	1,572
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	5,564
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	4,378
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	5,214
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	0	0	1,200
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,320
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	232
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,314
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,304
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,160
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,179
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	848
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,785
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	664
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	780
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	3,672
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	896
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	354
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,002
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
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(F Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	708
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,709
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,504
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	354
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	435
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	361
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	756
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	708
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	178
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	840
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	872
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,376
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,074
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	216
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,010
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	708
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	804
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	600
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	354
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	488
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,775
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	630
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	940
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	420
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,062
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,005
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	354
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	420

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	1322	50	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	435
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	9,600
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	405
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	250
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	710
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	960
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	501
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	630
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	450
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	450
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,995
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	450
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	420
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,734
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,114
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,500
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,451
1	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,002
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,062
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	602
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,106
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,416
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	450
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	854
1322	60			25		32	F G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	1,225	0	0	0	0	1,225
1322	60			25		32	F G ENTERPRISES INC	0	1,225	0	0	0	0	1,225
1322	60			25		32	F G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	2,400	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	231	0	0	0	0	231
1322	60			25		32	F G ENTERPRISES INC	0	865	0	0	0	0	865

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	1322	60	All	All	25	All	All	All

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1322	60			25		32	F G ENTERPRISES INC	0	2,309	0	0	0	0	2,308
1322	60			25		32	F G ENTERPRISES INC	0	0	3,057-	0	0	0	3,057-
1322	60			25		32	F G ENTERPRISES INC	0	4,052	0	0	0	0	4,052
1322	60			25		32	F G ENTERPRISES INC	0	0	2,400	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	175	0	0	0	175
1322	60			25		32	F G ENTERPRISES INC	0	0	175	0	0	0	175
1322	60			25		32	F G ENTERPRISES INC	0	0	175	0	0	0	175
1322	60			25		32	F G ENTERPRISES INC	0	0	432	0	0	0	432
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	2,125	2,125
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	108	108
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	3,725	3,725
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	2,036	2,036
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	1,710	1,710
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	462	462
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	21,000	21,000
1322	60			25		32	F G ENTERPRISES INC	0	0	0	432	0	0	432
1322	60			25		32	F G ENTERPRISES INC	0	0	0	270-	0	0	270-
1322	60			25		32	F G ENTERPRISES INC	0	0	0	464	0	0	464
1322	60			25		32	F G ENTERPRISES INC	0	0	492	0	0	0	492
1322	60			25		32	F G ENTERPRISES INC	0	0	3,048	0	0	0	3,048
1	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	4,725
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	944
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	232
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,772
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,175
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	696
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,190
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	456
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,377
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,406
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,704
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	743

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1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,088
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	696
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,368
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	367
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,328
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	912
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	432
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,169
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,085
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
[illegible]	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	2,625	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	2,808	0	0	0	0	0	2,808
1322	60			25		32	F G ENTERPRISES INC	480	0	0	0	0	0	480
1322	60			25		32	F G ENTERPRISES INC	1,592	0	0	0	0	0	1,592
1322	60			25		32	F G ENTERPRISES INC	1,453	0	0	0	0	0	1,453
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	680	0	0	0	0	0	680
1322	60			25		32	F G ENTERPRISES INC	1,540	0	0	0	0	0	1,540
1322	60			25		32	F G ENTERPRISES INC	1,416	0	0	0	0	0	1,416
1322	60			25		32	F G ENTERPRISES INC	2,036	0	0	0	0	0	2,036
1322	60			25		32	F G ENTERPRISES INC	1,996	0	0	0	0	0	1,996
1322	60			25		32	F G ENTERPRISES INC	2,625	0	0	0	0	0	2,625
1322	60			25		32	F G ENTERPRISES INC	4,725	0	0	0	0	0	4,725
1322	60			25		32	F G ENTERPRISES INC	4,725	0	0	0	0	0	4,725
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,328
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	912

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	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	1,112
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	448
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	4,725
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	448
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	4,725
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	2,925
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	680
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	178
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	0	984
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	2,400	0	0	0	0	0	2,400
1322	60			25		32	F G ENTERPRISES INC	4,215	0	0	0	0	0	4,215
1322	60			25		32	F G ENTERPRISES INC	1,225	0	0	0	0	0	1,225
1322	60			25		32	F G ENTERPRISES INC	1,335	0	0	0	0	0	1,335
1322	60			25		32	F G ENTERPRISES INC	4,725	0	0	0	0	0	4,725
1322	60			25		32	HERITAGE	0	0	0	0	0	0	81,949
1322	60			25		32	HERITAGE	57,962	0	0	0	0	0	57,962
1322	60			25		32	HERITAGE	0	0	0	0	0	0	45,350
	60			25		32	HERITAGE	0	0	0	0	0	0	21,922
1322	60			25		32	HERITAGE	0	0	0	0	0	0	221,596
1322	60			25		32	HERITAGE	0	0	0	0	0	0	221,075
1322	60			25		32	HERITAGE	0	0	0	0	0	0	212,085
1322	60			25		32	HERITAGE	0	0	0	0	0	0	58,799
1322	60			25		32	HERITAGE	0	0	0	0	0	0	61,492
1322	60			25		32	HERITAGE	0	0	52,990	0	0	0	52,990
1322	60			25		32	HERITAGE	0	0	0	0	39,883	0	39,883
1322	60			25		32	HERITAGE	0	0	0	40,656	0	0	40,656
1322	60			25		32	HERITAGE	0	0	0	0	0	41,423	41,423
1322	60			25		32	HERITAGE	0	92,799	0	0	0	0	92,799
1322	60			25		32	HERITAGE	0	0	0	0	0	0	349,788
1322	60			25		32	HERITAGE	0	0	0	0	0	0	81,995
1322	60			25		32	HERITAGE	0	0	0	0	0	0	121,512
1322	60			25		32	HERITAGE	0	0	0	0	0	0	39,632
1322	60			25		32	IMPERIAL CRANE SERVICE	0	0	0	0	0	0	2,600
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	0	0	3,944
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	0	0	293
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	0	0	80
1322	60			25		32	INTERNATIONAL PIPING S	570	0	0	0	0	0	570
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	0	18

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	1322	60	All	All	25	All	All	All

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1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	0	3
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	0	348
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	0	220
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	0	357
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	0	15
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	0	1,217
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	0	3,547
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	0	28
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	0	436	436
1322	60			25		32	JOLIET VALVES INC	0	0	0	3,434	0	0	3,434
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	2,175	0	0	0	2,175
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	440	0	0	0	440
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	880	0	0	0	880
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	0	0	0	875
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	0	0	0	1,975
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	0	0	0	605
1322	60			25		32	NEW PIG CORP	0	3,670	0	0	0	0	3,670
1322	60			25		32	PATTEN POWER SYSTEMS	0	2,280-	0	0	0	0	2,280-
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	0	80
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	0	4,800
	60			25		32	PATTEN POWER SYSTEMS	4,800	0	0	0	0	0	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	4,800	0	0	0	0	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	0	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	0	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	0	80
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	0	4,800
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	0	4,800
1322	60			25		32	PEERLESS METAL PRODUCT	0	0	0	0	0	0	3,712
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	0	0	0	505
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	0	0	0	275
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	0	0	0	110
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	0	0	0	741
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	0	0	12,585
1322	60			25		32	SCHECK MECHANICAL CORP	0	2,438	0	0	0	0	2,438
1322	60			25		32	SCHECK MECHANICAL CORP	0	734	0	0	0	0	734
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	0	0	1,500
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	0	0	1,029
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	3,789
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	529
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	512
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	3,335

Koppers Industries Inc.
CARBON MATERIALS AND CHEMICALS
Journal Voucher Inquiry Report
December 1996

(F[illegible] Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	2,873
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	436
1322	60			25		55	TAR HOURLY PAYROLL	0	0	1,881	0	0	0	1,881
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	294
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	1,116
1322	60			25		55	TAR HOURLY PAYROLL	0	3,134	0	0	0	0	3,134
1322	60			25		55	TAR HOURLY PAYROLL	0	16	0	0	0	0	16
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	61
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	502
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	0	0	350
1322	60			25		32	UNITED PARCEL SERVICE	24	0	0	0	0	0	24
1322	60			25		32	UNITED PARCEL SERVICE	0	0	0	0	0	0	5
1322	60			25		32	WASTE SYSTEMS INC	0	6,000	0	0	0	0	6,000
1322	60			25		32	WASTE SYSTEMS INC	0	0	0	0	0	0	13,750
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	0	0	120
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	0	0	120
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	0	0	539
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	0	0	140
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	0	0	120
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	0	0	120
TOTAL LOCATION (0050) STICKNEY INDUSTRIAL								136,702	190,125	62,206	61,832	40,677	1,645,822-	977,419
TOTAL REPORT								136,702	190,125	62,206	61,832	40,677	1,645,822-	977,419

Journal Voucher Inquiry Report

Requested By ALIOTO June 1997

(F[illegible] Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	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
1322	60			25			Pr Yr Begin Balance	0	0	0	0	0	0	3,075,907
1322	60			25		32	ARTHUR D LITTLE INC	41,400	0	0	0	0	0	41,400
1322	60			25		32	ARTHUR D LITTLE INC	0	6,640	0	0	0	0	6,640
1322	60			25		32	BERWYN MARINE CENTER I	0	359	0	0	0	0	359
1322	60			25		44	CASH RECEIPTS	1,038,479-	0	0	0	0	0	1,038,479-
1322	60			25		32	CONSOLIDATED PRODUCTS	0	0	1,526	0	0	0	1,526
1322	60			25		33	CORR GL DECEMBER CASH	0	0	0	0	1,725,000	0	1,725,000
1322	60			25		33	CORR GL JANUARY CASH R	0	0	0	0	1,038,479	0	1,038,479
1322	60			25		32	F G ENTERPRISES INC	0	297	0	0	0	0	297-
1322	60			25		32	HERITAGE	0	0	33,536	0	0	0	33,536
1322	60			25		32	HERITAGE	0	0	0	8,714	0	0	8,714
1322	60			25		32	HERITAGE	0	41,291	0	0	0	0	41,291
1322	60			25		32	HERITAGE	42,950	0	0	0	0	0	42,950
1322	60			25		31	ROSE M ALIOTO	0	0	5	0	0	0	5
1322	60			25		32	SUPERIOR SPECIAL SERVI	0	47,048	0	0	0	0	47,048
TOTAL LOCATION (0060) STICKNEY INDUSTRIAL								954,129-	95,041	35,067	8,714	2,763,479	0	5,024,079
T				REPORT				954,129-	95,041	35,067	8,714	2,763,479	0	5,024,079

D

APPENDIX D

(SEE TABS 1-40)

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Final Report
Koppers Industries, Inc.

LIST OF REPORTS SUBMITTED TO EPA

March 17, 1998
Stickney Tar Spill

(Complete attachments included with submittal except as otherwise noted)

TAB NO.	DATE	ITEM (submitted to U.S. EPA unless otherwise noted)	ATTACHMENTS (Included w/this final Report unless otherwise noted)	SUMMARY/REMARKS
1.	10-1-95	Work Plan and Site Safety Plan	Table of Contents Only	Body of Report Not Included (1 large volume)
2.	10-23-95	IEPA letter to KII setting discharge limitations		Letter sets effluent discharge limitations to Chicago Sanitary & Ship Canal for treatment of dredged materials.
3.	11-03-95	Progress Report	Dredge progress report; Frac. tank analyses; WWTP Flow log; WWTP outfall analyses; progress diagram; dredge progress sketch;	Report slow diving operations, discuss revised timeline
4.	11-22-95	Progress Report	WWTP Flow log; WWTP outfall analyses; progress diagram;	Report EMS dredge operations ceased;
5.	12-01-95	Progress Report	WWTP Flow log; WWTP Outfall Analyses; progress chart;	Discussion of Superior Dredging's continued dredging operations.
6.	12-11-95	Dredge Configuration	Dredge sketch; dredge progress diagram	Discuss dredging rigging, operation and traffic issues.
7.	12-15-95	Progress Report	Dredging Log; WWTP Flow log; WWTP outfall analyses; UWMs; progress chart	Discussion of Superior Dredging's continued dredging operations.
8.	12-28-95	Response to EPA Request for Information	Facility diagram; expense accounting; MWRD Permit; incident notes; incident logs; PPE lists; USCG statements; WWTP laboratory data sheets; effluent treatment system diagram. (Submitted in full)	Omitted From this Report
9.	12-29-95	Progress Report	WWTP flow log; WWTP outfall analyses; UWMs	Discussion of general progress.

TAB NO.	DATE	ITEM (submitted to U.S. EPA unless otherwise noted)	ATTACHMENTS (Included w/this final Report unless otherwise noted)	SUMMARY/REMARKS
10.	01-03-96	Dredge Configuration	Dredge configuration sketch	Discuss dredge rigging, placement, operation and oncoming traffic
11.	01-12-96	Progress Report	WWTP Flow log; WWTP outfall analyses; UWMs;	Discussion of general progress.
12.	01-26-96	Progress Report	No attachments	EMT analyses delayed
13.	1-31-96	KII's Confirmation of Cleanup Sampling and Quality Assurance Project Plan	Table of Contents	Document omitted – Table of Contents Only.
14.	1-31-96	Confirmation of Cleanup Sampling and Quality Assurance Project Plan	Table of Contents Only	Body of Report Not Included (1 large volume)
15.	02-12-96	Progress Report	WWTP Flow log; WWTP outfall analyses;	Discussion of general progress
16.	02-23-96	Progress Report	WWTP Flow log; WWTP outfall analyses; progress chart; UWMs; progress diagrams;	Discussion of general progress; cleanup sampling plan under revision.
17.	2-29-96	Letter to EPA regarding videotaping		KII's response to EPA's request to videotape ongoing cleanup efforts;
18.	3-15-96	Progress Report	UWMs; WWTP Flow log; WWTP Effluent Analyses; second revised confirmation sampling plan	General discussion of dredging progress; submit second revised confirmation sampling plan
19.	3-20-96	Letter from EPA commenting on Draft Confirmation of Cleanup Sampling and Quality Assurance Project Plan		Short comment letter from EPA requesting two changes to draft plan.
20.	3-31-96	Progress Report	UWMs; WWTP Flow log; WWTP effluent analyses; revised sampling collection procedures w/diagrams;	General discussion of dredging progress; confirm diver test to determine integrity of sheet piling repairs;

TAB NO.	DATE	ITEM (submitted to U.S. EPA unless otherwise noted)	ATTACHMENTS (Included w/this final Report unless otherwise noted)	SUMMARY/REMARKS
21.	5-2-96	Letter from EPA regarding continuation of dredging.		Discusses recent sediment analyses and recommends further dredging and requests extension of dredging confirmation of cleanup sampling plan to downstream locations.
22.	5-13-96	Letter to EPA discussing Dredging Issues	Dredging Pass Charts (2); Crude Tar constituent range data sheets; constituent comparison sheets (fresh product v. sediment samples); spilled material removal calculation memo; map showing extent of contamination (11/27/95)	Letter submitted to EPA at meeting of KII representatives with EPA on May 13, 1996 regarding the continuation of dredging. Memo outlines reasons that KII believed that further dredging of the Canal was unnecessary.
23.	5-15-96	Progress Report	UWMs; WWTP flow log; WWTP effluent analyses;	General discussion of dredging and treatment progress and notice of completion of cleanup confirmation sampling plan.
24.	5-24-96	USCG Oil Sample Analysis Report	Identification, chain-of-custody, and laboratory data sheets	Results from U.S. Coast Guard's analysis of Canal sediment sample.
25.	7-25-96	KII's submission of laboratory analyses of May 19, 1996 Canal sediment samples	Report dated 7/18/96 by A.D. Little, Inc., entitled, "Report on Chemical Fingerprinting of Sediment and Coal Tar Samples", including attachments.	Cover letter to July 18, 1996 Arthur D. Little Report .
26.	8-30-96	Notice of KII Intent to Remove Boom		Notice by KII to EPA of KII's intent to remove Canal boom.
27.	8-30-96	Notice of KII Intent to Remove and Dismantle Pipeline		Notice by KII to EPA of intention to remove and dismantle pipeline that was involved in the September 1996 spill.
28.	9-9-96	U.S. EPA's Response to 8/30/96 EPA letter Re: Boom Maintenance		Memorializes KII/EPA agreement to maintain boom in place pending meeting between parties.
29.	9-25-96	Progress Report	UWMs; WWTP flow log; WWTP outfall analyses; USCG Oil Spill Handling Guide;	Discussion of general progress; discussion of taking test core sediment sample to perform analysis to determine age of spilled material.
30.	10-31-96	Final Sampling & Analysis Plan to EPA		KII's submission of A.D. Little & Company's 10/31/96 Final Sampling and Analysis Plan

TAB NO.	DATE	ITEM (submitted to U.S. EPA unless otherwise noted)	ATTACHMENTS (Included w/this final Report unless otherwise noted)	SUMMARY/REMARKS
31.	11-1-96	Letter to EPA		Follow-up submission to KII's 10/31/96 Sampling and Analysis Plan, containing Sampling and Analysis Schedule and Coordination.
32.	11-1-96	Second Letter to EPA notifying of intention to remove pipeline		Letter notifying EPA of dismantling of pipeline involved in spill beginning November 12, 1996.
33.	11-26-96	A.D. Little Fax to U.S. EPA		A.D. Little's transmission of preliminary qualitative data from equipment blanks and a sample from the cleanup project
34.	1-31-97	KII's submission of Final Report of A.D. Little & Company	A.D. Little Final Report dated 1/30/97	Cover letter to A.D. Little's final report, "Chemical Fingerprinting of Sediment Samples Collected at the Chicago Sanitary and Ship Canal"
35.	3-13-97	EPA letter to KII		EPA letter granting KII permission to remove 3 booms and reposition 1 boom, and request that KII maintain a daily inspection record
36.	10-10-97	Letter from U.S. EPA		EPA requesting analytical results of samples taken June 13, 1997.
37.	10-21-97	A.D. Little Sheen/Sediment Sample Analysis	Arthur D. Little Report dated 10/17/97	KII's submission of 10/17/97 Arthur D. Little Report containing analysis of June 1997 sheen/sediment sampling.
38.	10-23-97	Proposal for Work from A.D. Little		Scope of Work by A.D. Little for preparation of Sampling and Analysis Plan, data interpretation, and Report. (Accepted by KII on 10/24/96)
39.	1-29-98	U.S. EPA letter requesting Final Report		EPA letter commenting that the time is appropriate for submission of KII Final Report on cleanup pursuant to Administrative Order
40.	3-25-98	Boom Maintenance Log		KII's Boom Maintenance Log (not previously submitted to EPA)

WORK PLAN
AND
SITE SAFETY PLAN

Project:

Crude Tar Spill
Chicago Sanitary & Ship Canal
Koppers Industries, Inc.
Stickney Terminal
4100 South Laramie Avenue
Stickney, Illinois

Prepared for:

U.S. Environmental Protection Agency (U.S. EPA)
Region V
77 West Jackson Boulevard
Chicago, Illinois

Prepared Pursuant to:

Administrative Order
Docket No. V-W-96-AO-01
Issued October 5, 1995

Prepared By:

Koppers Industries, Inc.
3900 South Laramie Avenue
Stickney, Illinois

October 1995

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ATTACHMENTS

- ATTACHMENT A - Action Plan, as amended
- ATTACHMENT B - IEPA Interim Discharge Parameters
- ATTACHMENT C - U.S. EPA Emergency Discharge Authorization
- ATTACHMENT D - Discharge Characteristics (submitted to IEPA)

APPENDICES

APPENDIX A - ADMINISTRATIVE ORDER A-1

APPENDIX B - SITE SAFETY PLAN B-1

APPENDIX C - PROJECT SCHEDULE / TIMELINE FORMAT C-1

APPENDIX D - PRELIMINARY ANALYTICAL DATA SUMMARY D-1

APPENDIX E - QUALITY ASSURANCE PROJECT PLAN (QAPP) E-1

APPENDIX F - LABORATORY QUALITY ASSURANCE MANUAL F-1

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-0610

October 23, 1995

Koppers Industries, Inc.
Attention: Mark Cilley
3900 South Laramie Avenue
Cicero, Illinois 60650

Re: Koppers Industries, Inc. -- Discharge limitations for Illinois Emergency Response Incident #951884

Dear Mr. Cilley:

In response to your October 4, 1995 letter and our telephone conversation on October 5, 1995 we are forwarding the following discharge limitations for clean-up of the above referenced emergency response incident.

It is our understanding that wastewater from the coal tar recovery operation will be treated by the existing on-site pretreatment system followed by activated carbon treatment. The treated wastewater will then be discharged to the Chicago and Sanitary Ship Canal, under USEPA emergency discharge authorization. As a result a NPDES permit will not be required.

Based on our review of the information provided the following effluent limitations would apply to the discharge:

	Limitation mg/l	
Parameter	30 Day Average	Daily Max
Total Priority Pollutant PNA's		0.1
Benzene		0.05
Total BETX*		0.75
Lead	0.2	0.4
Zinc	1.0	2.0
pH		6 to 9 S.U.

*Benzene, Ethylbenzene, Toluene, Xylene(s)

Should you have any questions concerning this letter, please contact Steve Nightingale of my staff at the above telephone number.

Very truly yours,

Thomas G. McSwiggin, P.E.
Manager, Permit Section
Division of Water Pollution Control

TGM:SFN\95101008.PSJ

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

VIA FACSIMILE

November 3, 1995

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Bi Weekly Progress Report

Dear Mr. Zintak:

Progress to date has been relatively slow compared to our first estimate. Diving operations presently are able to clear an area of approximately 300 square feet per day. Current plans,(as discussed with you today) are to demobilize the dive crew and contract with Superior Special Services, Inc. using an IMS Barge to vaccum the coal from the bottom of the canal. Operations will be similiar in function to the diving operations without the potential for any personnel exposure to the coal tar and increased removal ability.

The quanity of coal tar removed can only be estimated due to comingling of the material with water and sediment. As of September 21, 1995 the quanity of material recovered was 9731 gallons (calculations are attached) of which 20% was water and an ash (sediment) content of .53% (Koppers analytical results are attached). These results show approximately 7743 gallons of coal tar recovered. After the 21st, two additional fractionation tanks were placed in service and they currently have 13508 gallons of coal tar/sediment/water mixture. Analysis will be run on this material to try and determine the amount of coal tar it contains.

The total volume of treated water discharged to the Chicago Sanitary Shipping Canal is 7567200 gallons. Attached is a table of daily flows and analytical results of the discharge.

A revised project timeline is enclosed for your review as well as an updated map showing the area dredged and area remaining to be dredged. The area remaining to be dredged is is only estimated as our first attempt at extent of contamination sampling proofed futile. On Monday, November 6, 1995 another attempt at sampling will be made by Heritage to map out the extent of contamination.

Heritage Environmental will continue to maintain the booms until Koppers can obtain another boat and proper insurance. Once these items have been obtained, FG Enterprises will man the boat and maintain the booms in place of Heritage Environmental Services, Inc.

Also enclosed is the estimate calculations for the 17000 gallons of coal tar spilled.

If you have any further questions, please call me at (708) 656-5900.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

Superior

Superior Special Services, Inc.
2905 Paine Avenue
P.O. Box 1249
Sheboygan, Wisconsin 53082-1249
(414) 458-6030
FAX (414) 452-7254

November 3, 1995

Koppers Industries, Inc
3900 S. Laramie Ave.
Cicero, IL 60650

Dear Mr. Mark Cilley;

This letter is to confirm our conversation regarding the fact that Superior Special Services has the equipment and personnel to be mobilized to your site at 3900 South Laramie Ave. Cicero, Illinois by November 10, 1995. It will take Superior Special Services several working days to perform adequate setup. Superior expects to be operational with the dredge sometime the week of the 13th.

Very truly yours,

Christopher M. Hohol, CET
Director of Operations

Earl Wilhelm
Senior Project Manager

Superior
SPECIAL SERVICES, INC.

THE HOME TEAM ADVANTAGE

November 3, 1995

Koppers Industries, Inc.
3900 S. Laramie Ave.
Cicero, Il. 60650

Dear Mr. Mark Cilley;

Thank you for allowing Superior the opportunity to present the option of hydraulic dredging to remediate your spill situation. We are quite confident that this approach is the most feasible and cost effective.

As we discussed, following is a list of references you may contact to discuss Superiors capabilities and past performances.

Mr. Tom Praeger
Principal Env Engineer
Mercury Marine, Inc
414-929-5500

Mr Rick Difiore
Director of Field Operations
B B & L, Inc
315-446-2570

Mr Chet Tadych
Operating Manager
Manitowoc WWTP/sanitary district
414-683-4515

Mr David Taylor
Special Projects Coordinator
Madison Metro Sewage District
608-222-1201

Robert M Rosdil
Environmental Plant Manager
Maple Leaf Farms
414-878-1234

Lamont Risseeuw
Operator
Cedar Grove WWTP
414-668-6523

Superior has arranged to have Koppers Industries listed as an additional insured on our insurance policy. As such, you should be receiving a copy of an insurance certificate within two (2) days. Please feel free to contact us if you have any questions.

Very truly yours;

Christopher M Hohol, CET
Director of Operations

Earl Wilhelm
Senior Project Manager

222 EAST MAIN STREET P.O. BOX 500 PORT WASHINGTON, WI 53074 TEL: (414) 284-9101 FAX: (414) 284-9208

Printed On Recycled Paper

Tank 1
9-21-95
5:00 pm

INNAGE MEASURE (INCHES)		19	
VOLUME INNAGE			
	CU. FT.	237	
	GALLONS	1,774	
	BOTTOM WIDTH	7.91666667	
	BOTTOM LENGTH	18.9166667	
	BOTTM HEIGHT	3	
	TOP WIDTH	7.91666667	
	TOP LENGTH	34.8333333	
	TOP HEIGHT		
	TRANSITION HEIGH	1	
	BOTTOM	12.48	CU FT/INCH
		93.35	GAL/INCH
	TRANSITION	33.48	CU FT/INCH
		250.44	GAL/INCH
	TOP VOLUME	22.98	CU FT/INCH
		171.89	GAL/INCH
	BOTTOM VOLUME	237.12	CUBIC FEET
		1,773.62	GALLONS
	TRANS VOLUME	(119.90)	CUBIC FEET
		(896.89)	GALLONS
	TOP VOLUME	121.61	CUBIC FEET
		909.63	GALLONS

Tank C
9-21-[illegible]
5:00 pm

INNAGE MEASURE (INCHES)		60	
VOLUME INNAGE			
	CU. FT.	1,064	
	GALLONS	7,957	
	BOTTOM WIDTH	7.91666667	
	BOTTOM LENGTH	18.9166667	
	BOTTM HEIGHT	3	
	TOP WIDTH	7.91666667	
	TOP LENGTH	34.8333333	
	TOP HEIGHT		
	TRANSITION HEIGH	1	
	BOTTOM	12.48	CU FT/INCH
		93.35	GAL/INCH
	TRANSITION	33.48	CU FT/INCH
		250.44	GAL/INCH
	TOP VOLUME	22.98	CU FT/INCH
		171.89	GAL/INCH
	BOTTOM VOLUME	748.78	CUBIC FEET
		5,600.91	GALLONS
	TRANS VOLUME	1,252.81	CUBIC FEET
		9,371.04	GALLONS
	TOP VOLUME	1,063.80	CUBIC FEET
		7,957.24	GALLONS

Cilley, Mark

From: Traczek, Greg
To: Harsh, Robert
Cc: Cilley, Mark; Lamb, James
Subject: Analysis of Sample from Bottom of ~~Canal~~ Frac Tank
Date: Thursday, September 21, 1995 11:05AM

Rob,

Test results for the sample of material from the bottom of the ~~canal~~ Frac Tank (sample # 20-238-18), dated 9/18/95 are as follows:

SpGr		1.150
% H2O		18.0
% Ash		Will be complete @ 1400, today
Flash Pt.		205 C
Distillation-		
	0-170	4.4
	-200	6.6
	-210	10.4
	-235	15.8
	-270	26.4
	-300	35.0
	-315	36.4
	-335	39.8
	-355	47.0
	-375	50.8
	Residue	49.2

Any questions or comments, just let me know.

Greg

Cilley, Mark

From: Traczek, Greg
To: Harsh, Robert
Cc: Cilley, Mark; Lamb, James
Subject: Analysis of Sample from Bottom of Frac Tank
Date: Thursday, September 21, 1995 3:56PM

Rob,

The % ash result on the sample was 0.53. This is very high for a crude coke oven tar sample. It would not be advisable to recycle it as it is.

Greg

11-3 95 A.M

INNAGE MEASURE (INCHES)		54	
VOLUME INNAGE			
	CU. FT.	926	
	GALLONS	6,926	
	BOTTOM WIDTH	7.91666667	
	BOTTOM LENGTH	18.9166667	
	BOTTM HEIGHT	3	
	TOP WIDTH	7.91666667	
	TOP LENGTH	34.8333333	
	TOP HEIGHT		
	TRANSITION HEIGH	1	
	BOTTOM	12.48	CU FT/INCH
		93.35	GAL/INCH
	TRANSITION	33.48	CU FT/INCH
		250.44	GAL/INCH
	TOP VOLUME	22.98	CU FT/INCH
		171.89	GAL/INCH
	BOTTOM VOLUME	673.91	CUBIC FEET
		5,040.82	GALLONS
	TRANS VOLUME	1,051.93	CUBIC FEET
		7,868.41	GALLONS
	TOP VOLUME	925.92	CUBIC FEET
		6,925.88	GALLONS

11-3-95 12 M

INNAGE MEASURE (INCHES)	52		
VOLUME INNAGE			
	CU. FT.	880	
	GALLONS	6,582	
	BOTTOM WIDTH	7.91666667	
	BOTTOM LENGTH	18.9166667	
	BOTTM HEIGHT	3	
	TOP WIDTH	7.91666667	
	TOP LENGTH	34.8333333	
	TOP HEIGHT		
	TRANSITION HEIGH	1	
	BOTTOM	12.48	CU FT/INCH
		93.35	GAL/INCH
	TRANSITION	33.48	CU FT/INCH
		250.44	GAL/INCH
	TOP VOLUME	22.98	CU FT/INCH
		171.89	GAL/INCH
	BOTTOM VOLUME	648.95	CUBIC FEET
		4,854.12	GALLONS
	TRANS VOLUME	984.97	CUBIC FEET
		7,367.54	GALLONS
	TOP VOLUME	879.96	CUBIC FEET
		6,582.10	GALLONS

Daily Flow

Date	Gal/Min	Gal/Day
10/11/95	180	259200
10/12/95	190	273600
10/13/95	210	302400
10/14/95	200	288000
10/15/95	195	280800
10/16/95	195	280800
10/17/95	195	280800
10/18/95	195	280800
10/19/95	195	280800
10/20/95	200	288000
10/21/95	200	288000
10/22/95	200	288000
10/23/95	200	288000
10/24/95	200	288000
10/25/95	200	288000
10/26/95	200	288000
10/27/95	250	360000
10/28/95	265	381600
10/29/95	265	381600
10/30/95	265	381600
10/31/95	265	381600
11/1/95	265	381600
11/2/95	265	381600
11/3/95	260	374400

Total Flow 7567200 Gallons

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132774

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/20/95
Sample Received: 10/16/95

Sample Description: Effluent Outfall Grab 10/16/95
Sample No.: 34192

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☒ ROUTINE

Chain of Custoa Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 28627

Company: KOPPERS INDUSTRIES
Address: 3400 S. LARAMIE AVE.
CICERO, IL

Phone #: (708) 656-5900 Fax #: ( )
P.O. #: Proj. #:
Client Contact: ROBERT HARSH
Project ID / Location: PSES

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other:

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	SVOC, APP B, METALS	VOC	BTEX	Comments
WEST FPC	1	32oz	G	3	10/16/95	11:40	1	34190	X			—
WEST GRAB	↓	40ML	V	3	10/16/95	↓	HCL	34191		X		① 11:15 ② 11:30 ③ 11:45
EFFLUENT DISCH. GRAB	↓	40ML	V	3	10/16/95	SEE COMMENTS	HCL	34192			X	1ST @ 11:50
												2ND @ 12:05
												3RD @ 12:20

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date:	Received By:	Date:	Witness:	
[signature]	10 16 95	Robert J. Ciolino	10 16 95		☒ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- --	Received For Lab By:	Date: 10 16 95		☐ TEMPERATURE
	Time: :	[signature]	Time: :		

SPECIAL INSTRUCTIONS:

11/03/95 17:21 ☎708 967 5448 EMT →→→ KOPPERS ☑002/036

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132845

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/23/95
Sample Received: 10/17/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 34277

pH (units)	7.15
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132704

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 10/24/95
Report Date: 10/20/95
Sample Received: 10/17/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 34277

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeber

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132598

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 10/24/95
Report Date: 10/19/95
Sample Received: 10/17/95

Sample Description: Wastewater Grab - Effluent Outfall 10/17/95
Sample No.: 34277

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeber

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Chain of Custody Record

Due Date: ___-___-___ COC #: 14958

Company: [illegible]
Address: [illegible]

Phone #: ( ) [illegible] - [illegible] Fax #: ( ) [illegible] - [illegible]
P.O. #: _____ Proj. #: _____ - _____
Client Contact: [illegible]
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste
Other: _____

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Comments
N52A	1	Qt	G	1	[illegible]		1																
N52A	1	Pt	[illegible]		[illegible]		3																
[illegible]	1	[illegible]		[illegible]	[illegible]		2						X										
[illegible]	1		[illegible]	4			1							X									
[illegible]	1		1	3			[illegible]								X								

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: [illegible] Time: [illegible]	Received By:	Date: - - Time: :	Witness:	TURNAROUND TIME
[illegible]		[illegible]			☐ RUSH ___day turnaround
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: - - Time: :		☐ ROUTINE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132844

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 10/24/95
Report Date: 10/23/95
Sample Received: 10/18/95

Sample Description: Wastewater Grab Effluent Outfall 10/18/95
Sample No.: 34404

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132853

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 10/24/95
Report Date: 10/23/95
Sample Received: 10/18/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 34404

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeber
LABORATORY DIRECTOR

ENVIRONMENTAL
MONITORING AND
TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132846

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/23/95
Sample Received: 10/18/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 34404

pH (units)	6.88
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ____-____-____ COC #: 14959

Company: _____
Address: _____
Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste

Other: _____

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.																		Comments
[illegible]	1	[illegible]	[illegible]	1	[illegible]	[illegible]	1																			
[illegible]	1	[illegible]	[illegible]		[illegible]	[illegible]	3																			
[illegible]	[illegible]	[illegible]		[illegible]			[illegible]																			
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]																			

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: -- --	Received By:	Date: -- --	Witness:	TURNAROUND TIME:
	Time: :		Time: :		☐ RUSH
Relinquished By:	Date: -- --	Received For Lab By:	Date: -- --		____day turnaround
	Time: :		Time: :		☐ ROUTINE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133007

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/26/95
Sample Received: 10/19/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 34692

pH (units)	7.23
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133009

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/26/95
Sample Received: 10/19/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 34962

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Luk E. Zhu

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133010

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/26/95
Sample Received: 10/19/95

Sample Description: Wastewater Grab Effluent Outfall 10/19/95
Sample No.: 34962

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeber

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ____-____-____ COC #: 14960

Company: _____
Address: _____
Phone #: (___) ___-____ Fax #: (___) ___-____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste

Other: _____

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.																Comments

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: -- -- Time: :	Received By:	Date: -- -- Time: :	Witness:	TURNAROUND TIME: ☐ RUSH ____day turnaround ☐ ROUTINE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☐ RUSH
____day turnaround
☒ ROUTINE

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ____-____-____ COC #: 33310

Company: [illegible]
Address: [illegible] S. Lagrange Ave
[illegible]

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: [illegible]
Project ID / Location: [illegible]

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Other: _____

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	CTX 8240	PH													Comments
[illegible] #1	1	4 oz	VG	1	1/[illegible]	1447	[illegible]		X														[illegible]
[illegible] #2	↓	↓	↓	↓	↓	1502			X														↓
[illegible] #3	↓	↓	↓	↓	↓	1517			X														↓
	1	[illegible]	[illegible]	1	1/[illegible]	1451				X													[illegible]
																							[illegible] 6+

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: / Time:	Received By:	Date: / Time:	Witness:	
[illegible]	Date: 1-[illegible]-95 Time: 15:35	[illegible]	Date: 1-[illegible]-95 Time: 15:35		☒ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		☐ TEMPERATURE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132243

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/24/95
Sample Received: 10/20/95

Sample Description: Wastewater Grab Effluent Outfall 10/20/95
Sample No.: 34681

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-486, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132842

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/23/95
Sample Received: 10/20/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 34680

Reportable Compound PNA'S and Naphthalene	Concentration Found IN Sample ppb	Blank ppb	ADLS Soil ppb
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic-PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133006

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/26/95
Sample Received: 10/20/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 34680

pH (units)	7.06
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-5666
FAX: 708/967-6735

Due Date: _____ COC #: 17022

Company: Koppers Industries, Inc.
Address: 3900 S. Laramie
Cicero, IL 60650
Phone #: (708) 656 - 5900 Fax #: (708) 656 -
P.O. #: _____ Proj. #: _____
Client Contact: Robert Horsh
Project ID / Location: _____

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste
Other: _____
Container Type: P - Plastic; G - Glass; V - VOC
Preservative: 1. None 2. HNO3 3. H2SO4 4. NaOH

Analyses: BOD, TSS, PH; Appendix B Metals; METALS (RUSH); BETX (RUSH); VOC (RUSH)

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BOD, TSS, PH	Appendix B Metals	METALS (RUSH)	BETX (RUSH)	VOC (RUSH)	Comments
NS2A	1	Qt	G	1	10/20/95	9:00	1	34678	✓			7	63	
NS2A	1	Pt	P	1	10/20/95	9:00	3			✓				
WS1A	1	Qt	G	1	10/20/95	9:15	1	34679	✓					
WS1A	1	Pt	P	1	10/20/95	9:15	3			✓		7	95	
EFF. OUTFALL	1	PT	P	*	10/19 10/20	4:30-5:00		34680			X			* - 4 TO BE
EFF. GRAB	1	40ml	V	3	10/20			34681				X		COMPOSITED INTO
														ONE
EFF. OUTFALL	1	QT	G	*	10/19 10/20						X			

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Received By:	Date:	Witness:	TURNAROUND TIME:
[signature]	10-20-95 Time: 5:00	[signature]	10-20-95 Time: 5:00		☒ RUSH ____ day turnaround ☒ ROUTINE
Relinquished By: [signature]	Date: 10-20-95 Time:	Received For Lab By: [signature]	Date: 10/20/95 Time: 10:20		

SPEC STRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132242

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/24/95
Sample Received: 10/21/95

Sample Description: Wastewater Grab Effluent Outfall 10/21/95
Sample No.: 34769

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-486, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

11/03/95 17:23 ☎708 967 5448 EMT →→→ KOPPERS ☑008/038

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 14961

Company: Koppers
Address: 3900 S. Laramie
Cicero, IL 60650

Phone #: (708) 656-5900 Fax #: (708) 656-3640
P.O. #: Proj. #: -
Client Contact: Robert Harsh
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BOD, TSS, pH	App. B Metals	VOC, pH												Comments
NS2A	1	Qt	G	1	10-21	8:20	1	34767	✓														
NS2A	1	Pt	P	1	10-21	8:20	3			✓					8	38							
WS1A	1	Qt	G	1	10-21	8:45	1	34768	✓						8	23							
WS1A	1	Pt	P	1	10-21	8:45	3			✓													
Effluent out	1	40ml	V	3	10/21	1105-1135		34769			X												

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Received By:	Date:	Witness:	TURNAROUND TIME:
Carlos Norman	10-21-95 Time: 9:20	Jeffrey D Harsh	10-21-95 Time: 11:42		☐ RUSH ___ day turnaround ☒ ROUTINE
Relinquished By: Jeffrey D Harsh	Date: 10-21-95 Time: 12:34	Received For Lab By: [signature]	Date: 10/21/95 Time: :		

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133008

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/26/95
Sample Received: 10/23/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 34898

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeber

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133208

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/27/95
Sample Received: 10/23/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 34898

pH (units)	7.75
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133322

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/1/95
Sample Received: 10/23/95

Sample Description: Wastewater Grab Effluent Outfall 10/23/95
Sample No.: 34899

	Compound Purgeables	Concentration Found In Sample	Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 17003

Company:
Address:

Phone #: (___) ___-___ Fax #: (___) ___-___
P.O. #: Proj. #: ___-___
Client Contact:
Project ID / Location:

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste
Other:

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.																	Comments

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: / Time:	Received By:	Date: / Time:	Witness:	TURNAROUND TIME:
Relinquished By:	Date: / Time:	Received For Lab By:	Date: / Time:		☐ RUSH ___ day turnaround ☐ ROUTINE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☐ RUSH
____day turnaround
☒ ROUTINE

Chain of Custo · Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ____-____-____ COC #: 33091

Company: [illegible]
Address: [illegible] LARAMIE
[illegible] IL.

Phone #: (___) ____-____ Fax #: (___) ____-____
P.O. #: ____ Proj. #: ____
Client Contact: [illegible] HARSH
Project ID / Location: [illegible]

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Other: ____

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	[illegible]	[illegible]														Comments
[illegible]	5/1	40ml	VOC	3	11/23	15 [illegible]	HCL		X															Grab
[illegible]	5/1	QT	G	1	11/23	22 [illegible]	1			X														Grab

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: 12-23-95 Time: 2:30 pm	Received By: [illegible]	Date: 12-23-95 Time: 2:30 pm	Witness:	☒ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		☐ TEMPERATURE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133010

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/26/95
Sample Received: 10/24/95

Sample Description: Wastewater Grab Effluent Outfall 10/24/95
Sample No.: 34962

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133009

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/26/95
Sample Received: 10/24/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 34962

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 635 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133212

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/~~27/95~~
Sample Received: 10/~~24/95~~ 10/24/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 34962

pH (units)	7.07
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
[X] RUSH
____day turnaround
[ ] ROUTINE

Chain of Custod 'ecord

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 33203

Company: KOPPERS
Address: 3700 S. LARAMIE
CICERO

Phone #: (708) 656-5900 Fax #: (__) ___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: ROB HARSH
Project ID / Location: ___

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other: ___

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses: PNAs, ZN, Pb, PH, TCLP, PH, 8240

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PNAs	ZN	Pb	PH	TCLP	PH	8240	Comments
EFFL. GRAB	1	QT	G	*4	10/24			31962	X							
↓	↓	P	P	*4	↓					X						
↓	↓	40ml	V	3	↓							X				
																* 4 COMPOSITED INTO 1
									Unable to run pH							

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: 10-24-95 Time: :	Received By:	Date: -- -- Time: :	Witness:	[X] SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: 10/24/95 Time: 6:30		[ ] TEMPERATURE

SPECIAL INSTRUCTIONS:

11/03/95 17:23 ☎708 967 5448 EMT →→→ KOPPERS 010/036

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133209

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/27/95
Sample Received: 10/25/95

Sample Description: Wastewater Grab Effluent Outfall 10/25/95
Sample No.: 35102

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

132982

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/26/95
Sample Received: 10/25/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 35101

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133169

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/31/95
Sample Received: 10/25/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 35101

pH (units)	7.14
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

2

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custoa 'ecord

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 23972

Company: Kopper Industries
Address: 3900 South Laramie Ave
Cicero Ill 60650

Phone #: (708) 656-5900 Fax #: (708) 656-6079
P.O. #: ___ Proj. #: ___
Client Contact: M. Cilley
Project ID / Location: ___

Sample Type: (1) Water 2. Soil 3. Sludge 4. Oil 5. Waste Other: ___
Container Type: (P) - Plastic (G) Glass V - VOC
Preservative: (1) None (3) HNO3 2. H2SO4 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BOD	TSS	pH	App-B Metals				Phenols pH	Zn, Ni, pH	Hg	RUSH	RUSH	RUSH BOD, pH			Comments
NS2A	1	OT	G	1	10-25	0900	1		✓	✓	✓						7.91							
NS2A	1	PT	P	1	10-25	0900	3	35098				✓												
WS1A	1	OT	G	1	10-25	0900	1		✓	✓	✓						7.13							
								35104															*	4 COMP. INTO 1
WS1A	1	PT	P	1	1025	0900	3					✓												
EFF. OUT. GRAB	1	OT	G	4*				35101								X			7.14					
EFF OUT GRAB	1	PT	P	4*													X							
EFF OUT GRAB	1	40mL	V	3				35102										X						

does not accept samples that contain high levels of Cyanide.

ished By:	Date: 10-25-95 Time: 1:05P	Received By: Mark Monn	Date: 10-25-95 Time: 1 05P	Witness:
By:	Date: 10-25-95 Time: :	Received For Lab By: Dennis	Date: -- -- Time: :	

TURNAROUND TIME:
(X) RUSH
___ day turnaround
(X) ROUTINE

11/03/95 17:24 ☎708 967 5448 EMT →→→ KOPPERS 014/036

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133321

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/1/95
Sample Received: 10/26/95

Sample Description: Wastewater Grab Effluent Outfall 10/26/95
Sample No.: 35271

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133210

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/27/95
Sample Received: 10/26/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 35271

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133167

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/31/95
Sample Received: 10/26/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 35271

pH (units)	7.33
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

11/03/95 17:25 ☎708 967 5448 EMT →→→ KOPPERS ☑018/036

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custod' 'ecord

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 14963

Company: Koppers Industries
Address: 3900 S. Laramie
Cicero, IL 60650

Phone #: (708) 656 - 5900 Fax #: (708) 656 - 3646
P.O. #: Proj. #: -
Client Contact: Robert Harsh
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BOD, TSS, pH	App. B Metals	RUSH DNA, pH	RUSH Pb, Zn, pH	RUSH BTEX, pH								Comments
NS2A	1	Pt	G	1	10/26	9:10	1	35270	✓							7.63					
NS2A	1	Qt	P	1	10/26	9:10	3			✓											
EFF. GRAB	1	QT	G	4	10/25-10/26		1	35271					X								
↓		PT	P	4	↓		3							X			7.33				
↓		40ml	V	3	10/26		HCL								X						

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Received By:	Date:	Witness:	TURNAROUND TIME:
Carlos Nonn	10-26-95 Time: 9:30	Mark Monson	10-26-95 Time: 11 20		☒ RUSH ___day turnaround ☒ ROUTINE
Relinquished By: Mark Monson	Date: 10-26-95 Time: :	Received For Lab By: [signature]	Date: 10/26/95 Time: 7:00 pm		

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133437

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/3/95
Sample Received: 10/27/95

Sample Description: Wastewater Grab Effluent Outfall 10/27/95
Sample No.: 35360

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133168-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/31/95
Sample Received: 10/27/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 35360

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133168

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/31/95
Sample Received: 10/27/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 35360

pH (units)	7.23
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

2

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 14964

Company: Koppers Industries
Address: 3900 S. Laramie
Cicero, IL 60650

Phone #: (708) 656 - 5906 Fax #: (708) 656 - 3640
P.O. #: Proj. #: -
Client Contact: Robert Harsh
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BOD, TSS, PH	App. B Metals			RUSH PNA's, PH	RUSH Pb-Zn, PH	RUSH RTEX, PH							Comments
WS1A	1	Qt	G	1	10/27	9:50	1	35359	✓										6.89			
WS1A	1	Pt	P	1	10/27	10:15	3			✓												
EFF. GRAB	1	QT	G	4	10/26-27								X									
↓	↓	PT	P	4	↓			35360						X					7.23			
↓	↓	40ml	V	3	10/27			[illegible]							X							

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: / Time:	Received By:	Date: / Time:	Witness:	TURNAROUND TIME:
Carlos Nonin	Date: 10-27-95 Time: 10:30	[signature]	Date: 10-27-95 Time: 12:45		☐ RUSH ___day turnaround ☒ ROUTINE
Relinquished By: [signature]	Date: 10-27-95 Time: :	Received For Lab By: [signature]	Date: 10/27/95 6:45		

SPECIAL INSTRUCTIONS:

11/03/95 17:27 ☎708 967 5448 EMT ___ →→→ KOPPERS ☑022/036

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133174

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 10/31/95
Sample Received: 10/28/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 35409

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133328

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/1/95
Sample Received: 10/28/95

Sample Description: Wastewater Composite - Effluent Outfall 10/27-28/95
Sample No.: 35409

pH (units)	7.39
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

11/03/95 17:28 ☎708 967 5448 EMT →→→ KOPPERS 026/036

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custo. Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 23973

Company: Koppers Ind
Address: 3900 South Laramie
Cicero ILL 60650

Phone #: (708) 656 5900 Fax #: (708) 656 -0037
P.O. #: Proj. #: -
Client Contact: M. Cilley
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BOD	TSS	pH	App-B metals	VOC BEX 8240	PNA	Metals Zn, Pb						Comments
NS2A	1	Ot	G	1	10-28	11:30	1		V	V	V										
NS2A	1	PT	P	1	10-28	11:30	3	35407				V			7.18						
WS1A	1	Ot	G	1	10-28	11:30	1		V	V	V										
WS1A	1	PT	P	1	10-28	11:30	3	35408				V									
Effluent Out	1	40ml	V	3	10/28	1300-1330							X								
↓ ↓	1	QT	G	6	10/27			35409							X	COMPOSITE INTO 2 Quarts!					
↓ ↓	1	500ml	P	4	10/27											X					

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: / Time:	Received By:	Date / Time:	Witness:	TURNAROUND TIME:
Walter [signature]	Date: 10-28-95 Time: 1300	Jeffrey D Hamel	Date: 10-28-95 Time: 13:00		☐ RUSH ___ day turnaround
Jeffrey D Hamel	Date: 10-28-95 Time: 15:00	Received For Lab By: [signature]	Date: 10/28/95 Time: 5:40		☒ ROUTINE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133438

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/3/95
Sample Received: 10/29/95

Sample Description: Wastewater Grab Effluent Outfall 10/29/95
Sample No.: 35434

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133327-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/1/95
Sample Received: 10/29/95

Sample Description: Wastewater Composite - Effluent Outfall 10/28-29/95
Sample No.: 35434

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133327

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/1/95
Sample Received: 10/29/95

Sample Description: Wastewater Composite - Effluent Outfall 10/28-29/95
Sample No.: 35434

pH (units)	6.97
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custoa ecord

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 23974

Company: Koppers
Address: 3900 South Laramie Ave
Cicero ILL 60650

Phone #: (708) 656 -5900 Fax #: (708) 656 - 0037
P.O. #: ___ Proj. #: ___-___
Client Contact: ___
Project ID / Location: ___

Sample Type: (1) Water 2. Soil 3. Sludge 4. Oil 5. Waste Other: ___
Container Type: (P) - Plastic: (G) - Glass V - VOC
Preservative: (1) None (3) HNO3 2. H2SO4 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BOD	TSS	pH	PAH-B-metals	PNA's, pH, zn, Pb	Retest 8240							Comments
NS 2A	1	OT	G	1	10-29	11:30	1	35432	✓	✓	✓										
NS2A	1	PT	P	1	10-29	11:30	3	35432				✓									
WS1A	1	OT	G	1	10-29	11:30	1	35433	✓	✓	✓										
WS1A	1	PT	P	1	10-29	11:30	3	35433				✓									
Effluent - unpreserved	1	32oz	G	4	10/28-10/29	Varies	1	35434					X								Composite of 4.
Effluent - preserved	↓	16oz.	P	↓	10/28-10/29	↓	3	↓						X							Composite of 4.
Effluent - VOC	↓	40ml	V	3	10/29	12:30pm	1	↓							X						

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 10-29-95 Time: 12:55	Received By:	Date: 10-29-95 Time: 12:55	Witness:	TURNAROUND TIME:
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 10-29-95 Time: 4:00pm		☒ RUSH (Effluent) ___ day turnaround ☒ ROUTINE

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133330

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/1/95
Sample Received: 10/30/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 35517

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133436

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/3/95
Sample Received: 10/30/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 35517

pH (units)	7.18
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 23975

Company: Koppers Ind
Address: 3900 South Laramie Ave
Cicero ILL 60650

Phone #: (708) 656 5900 Fax #: (708) 656 0037
P.O. #: Proj. #: -
Client Contact:
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BOD	TSS	PH	BOD-B metals			~~[illegible]~~ Zn, Pb rush	~~[illegible]~~ NA, S rush	PH						Comments
NS2A	1	QT	G	1	10-30	10:00			✓	✓	✓												
NS2A	1	PT	P	1	10-30	10:00		35515				✓			7.79								
WS1A	1	QT	G	1	10-30	10:00		35516	✓	✓	✓				7.46								
WS1A	1	PT	P	1	10-30	10:00						✓											
EFF OUT	1	QT	G	4	10-29 10 30			35517								X	X	7.18					Comp into 1 Sample
EFF OUT	1	PT	P	4	10-29 10 30										X								Comp into 1 Sample

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 10-30-95 Time: 12:00pm	Received By:	Date: 10-30-95 Time: 12:00pm	Witness:	TURNAROUND TIME: ☑ RUSH ___ day turnaround ☒ ROUTINE
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: - - Time: :		

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

TURNAROUND TIME:
☒ RUSH
___ day turnaround
~~☒ ROUTINE~~

ATK

Chain of Custod, ecord

Due Date: ___-___-___ COC #: 29714

Company: KOPPERS
Address: 3900 S. LARAMIE AVE
CICERO IL
Phone #: ( ) ___-___ Fax #: ( ) ___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: ROB HARSH
Project ID / Location: EFF OUT.

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other: ___

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses: BETX 8240 RUSH ATK

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BETX 8240 RUSH ATK														Comments
EFF OUT	5/1	40mL	G	3	10/30	1135 AM 1150 AM 1205 PM	HCL		X			3	5	5	17								GRAB

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: 10-30-95 Time: 12:00PM	Received By:	Date: 10-30-95 Time: 12:00am	Witness:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		☐ TEMPERATURE

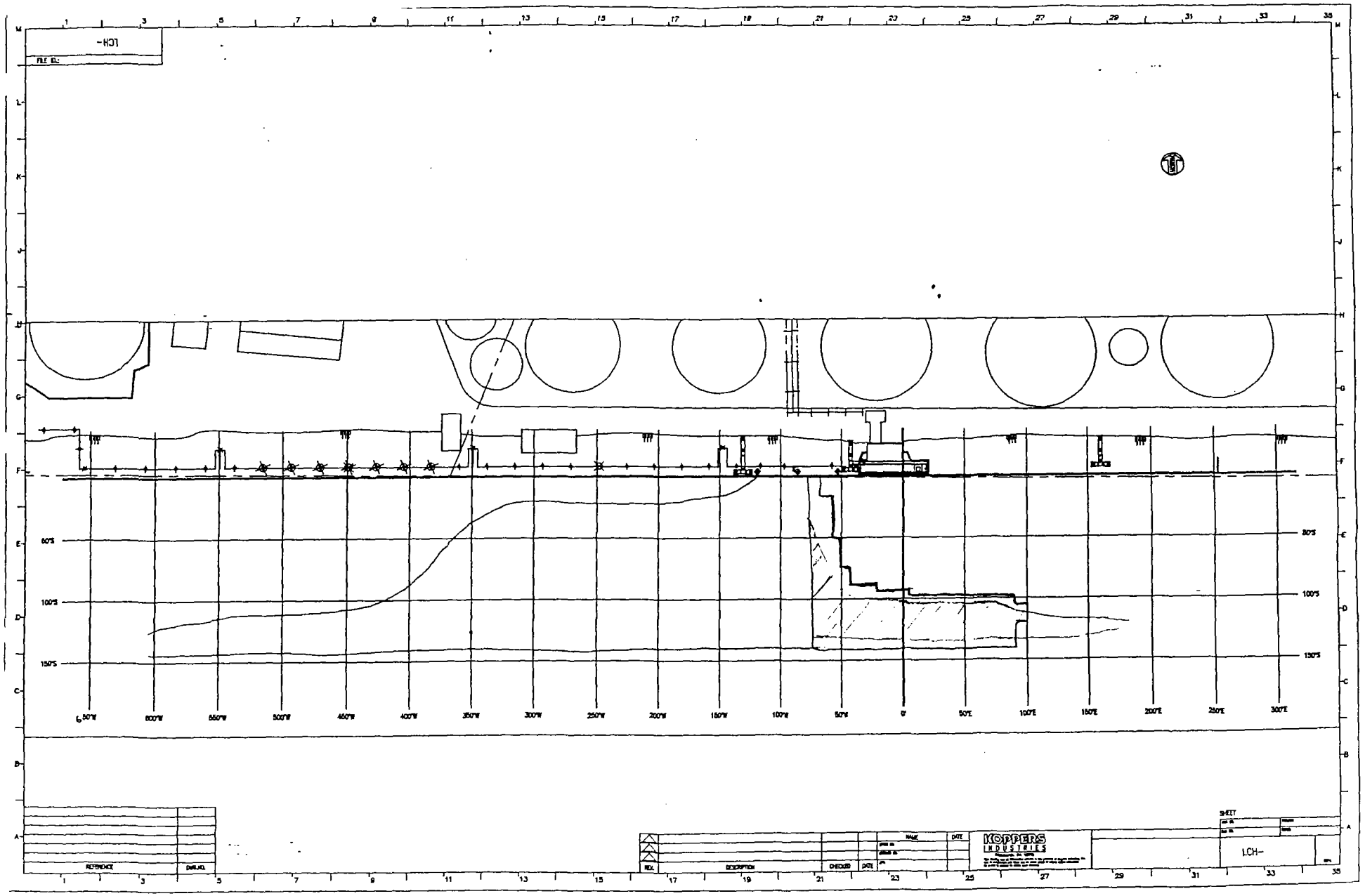
SPECIAL INSTRUCTIONS:

KOPPERS INDUSTRIES, INC.

Stickney Terminal Removal Project

November 1995

ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31
SAMPLING/ ANALYSIS - INITIAL EXTENT OF CONTAMINATION						X	X																							
SAMPLING ANALYSIS - CONFIRMATION OF CLEANUP																														
SAMPLING/ANALYSIS - WASTEWATER TREATMENT		X			X			X			X			X			X			X			X			X			X	
MOBILIZATION/DEMOBILIZATION				X	X	X	X		X	X	X	X																		
REMOVAL OF COAL TAR RELEASE													X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
REMOVAL OF CONTAMINATED DEBRIS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ON-SITE TREATMENT OF CANAL WATER	X	X	X			X	X	X	X	X			X	X	X	X	X			X	X	X	X	X			X	X	X	X
CLEANING/SEALING OF SHEET PILING																														
CONTAINMENT/SKIMMING OPERATIONS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SITE MANAGEMENT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X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9/25/95
F.O.

MATERIAL BALANCE CALCULATIONS
(By H. PROCAJLO - TRACK FOREMAN)

MATERIAL FROM 14TK to 6TK

14TK @ OIL TERMINAL

INITIAL MEAS. 4'-10" = 382,565 GALLONS
FINAL MEAS. 27-10" = 138,487 GALLONS
AMOUNT TRANSFERED = 244,078 GALLONS @ 132°F
≅ 238,581 GALLONS @ 60°F

6TK @ PLANT (DIST. UNIT WAS FEEDING FROM THIS TANK)

6TK INITIAL MEAS. @ 13'-11"
6TK FINAL MEAS @ 3'-10"
GAIN IN MEAS = 10'-1" OUT
≅ 172,741 GALLONS
UNIT #2 FEEDING FOR 10.5 HOURS
GALLONS FEED @ 5000GPH = 52,250 GALLON

∴ TOTAL GALLONS IN 6TK = 224,991 GALLONS @ 107
= 221,657 GALLONS @ 60°F

∴ AMOUNT UNACCOUNTED FOR = 238,581 − 221,657
= 16,524 GALLONS @ 60°F

ENGINEERING CALCULATION OF TAR LOST AT TERMINAL

NOTE: BECAUSE OF UNCERTAIN STEAM FLOW, CALCULATION IS A MAXIMUM BOUND. ACTUAL LEAKAGE AT TERMINAL IS LIKELY LESS THAN THIS CALCULATION.

(NO PERIOD HERE)

ASSUMPTIONS:

1. STEAM WAS PUT ON PIPE AT 7:35.
2. RUPTURE OCCURED DURING FIRST MINUTE OF STEAMING (7:36).
3. 14 TANK VALVE WAS CLOSED AT 8:10.
4. TAR LEAKAGE RATE WAS APPROXIMATELY 500 GPM. THIS IS BASED ON FINAL TANK LEVEL AND FRICTION LOSS IN PIPING.

500 GPM x 34 MINUTES = 17,000 GAL LOST.

4

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

HAND DELIVERED

November 22,1995

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Bi Weekly Progress Report

Dear Mr. Zintak:

Since the last report, EMS diver assisted dredging operations have ceased and all equipment has been deconed and their operations demobilized. Superior Special Services, Inc. has been mobilized and set-up is being completed on this date. Dredging operations with the IMS dredge barge (with modified head) should begin today.

Revisions to the site Work and Safety plan have been completed and all personnel have been trained and have signed the acknowledgement form.

No pumping of the coal tar/sediment has occurred since the last transaction and no additional material was collected in the fractionation tank. Also, dredging pump material (canal water, coal tar and sediment) will no be routed through two American Petroleum Institute (API) seperators.

The total volume of treated water discharged to the Chicago Sanitary and Shipping Canal is 13,929,120 gallons. Attached is a table of daily flows and analytical results of the discharge.

If you have any further questions, please call me at (708) 656-5900.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

Daily Flow

Date	Gallons/ Minute	Gallons/Day
10/11/95	180	259200
10/12/95	190	273600
10/13/95	210	302400
10/14/95	200	288000
10/15/95	195	280800
10/16/95	195	280800
10/17/95	195	280800
10/18/95	195	280800
10/19/95	195	280800
10/20/95	200	288000
10/21/95	200	288000
10/22/95	200	288000
10/23/95	200	288000
10/24/95	200	288000
10/25/95	200	288000
10/26/95	200	288000
10/27/95	250	360000
10/28/95	265	381600
10/29/95	265	381600
10/30/95	265	381600
10/31/95	265	381600
11/1/95	265	381600
11/2/95	265	381600
11/3/95	260	374400
11/4/95	260	374400
11/5/95	260	374400
11/6/95	260	374400
11/7/95	260	374400
11/8/95	160	230400
11/9/95	260	374400
11/10/95	190	273600
11/11/95	200	288000
11/12/95	260	374400
11/13/95	260	374400
11/14/95	260	374400
11/15/95	260	374400
11/16/95	260	374400
11/17/95	270	388800
11/18/95	260	374400
11/19/95	208	299520
11/20/95	190	273600
11/21/95	180	259200
11/22/95	160	230400

Total Flow: 13929120 Gallons

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133529

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/6/95
Sample Received: 10/30/95

Sample Description: Wastewater Grab Effluent Outfall 10/30/95
Sample No.: 35517

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133330

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/1/95
Sample Received: 10/30/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 35517

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133436

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/3/95
Sample Received: 10/30/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 35517

pH (units)	7.18
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134608

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/8/95
Sample Received: 11/2/95

Sample Description: Wastewater Grab Effluent Outfall 11/2/95
Sample No.: 35874

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133530

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/6/95
Sample Received: 11/2/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 35874

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeber

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134609

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/6/95
Sample Received: 11/2/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 35874

pH (units)	6.89
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133631

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/9/95
Sample Received: 11/6/95

Sample Description: Wastewater Grab Effluent Outfall 11/6/95
Sample No.: 36177

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-486, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeber

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133579

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/8/95
Sample Received: 11/6/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 36177

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133629

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/9/95
Sample Received: 11/6/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 36178

pH (units)	7.12
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133630

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/9/95
Sample Received: 11/7/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 36243

pH (units)	6.89
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133984

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/14/95
Sample Received: 11/9/95

Sample Description: Wastewater Grab Effluent Outfall 11/9/95
Sample No.: 36513

	Compound Purgeables	Concentration Found In Sample	Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeber

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133823

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/13/95
Sample Received: 11/9/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 36512

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134039

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/15/95
Sample Received: 11/9/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 36512

pH (units)	6.91
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133983

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/14/95
Sample Received: 11/12/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 36765

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134170

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 11/17/95
Report Date: 11/16/95
Sample Received: 11/15/95

Sample Description: Wastewater Grab Effluent Outfall 11/15/95
Sample No.: 36982

	Compound Purgeables	Concentration Found In Sample	Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134203

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/17/95
Sample Received: 11/15/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 36981

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

133983-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 11/17/95
Report Date: 11/15/95
Sample Received: 11/12/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 36765

pH (units)	7.18
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Danny W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134203

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/17/95
Sample Received: 11/15/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 36981

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134610

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/22/95
Sample Received: 11/15/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 36981

pH (units)	6.89
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☒ RUSH
____ day turnaround
☐ ROUTINE

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ____-____-____ COC #: 33658

Company: Koppers
Address: 39th & Laramie
Chicago, Il

Phone #: (__)____-____ Fax #: (__)____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: R. Harsh
Project ID / Location: ____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Other: ____

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PNA'S, PH, Pb, Zn	BTEX, PH													Comments
Effluent Comp	1	32oz/16oz	G/P	2/1	11/15	12:10		36981	X														134203
Effluent Grab	↓	40ml/16oz	↓	3/1	↓	↓		36982		X													134170

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: / Time:	Received By:	Date: / Time:	Witness:
S Kuton-Stasky	Date: 11-15-95 Time: 12:22 p.m.	Thomas S Reisy	Date: 11-15-95 Time: 12:22 p.m.	☒ SAMPLE RECEIVED ON ICE
Thomas S. Reisy	Date: 11-15-95 Time: :	Received For Lab By: [signature]	Date: 11-15-95 Time: :	☐ TEMPERATURE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☒ RUSH
____day turnaround
☐ ROUTINE

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ____-____-____ COC #: 33658

Company: Koppers
Address: 39th & Laramie
Chicago, Il

Phone #: (__)____-____ Fax #: (__)____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: R Harsh
Project ID / Location: ____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Other: ____

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PAHA's, PH, Pb, Zn	BTEX, PH													Comments
Effluent Comp	1	32oz/16oz	G/P	2/1	11/15	12:10			X														
Effluent Grab	↓	40ml/1	↓	3/1	↓	↓				X													

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: 11-15-95 Time: 12:22 pm	Received By:	Date: 11-15-95 Time: 12:22 pm	Witness:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		☐ TEMPERATURE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134456

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/21/95
Sample Received: 11/18/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37329

pH (units)	6.98
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

KOPPERS INDUSTRIES, INC.

Stickney Terminal Removal Project

November 1995

ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31
SAMPLING/ ANALYSIS - INITIAL EXTENT OF CONTAMINATION					■	■																								
SAMPLING ANALYSIS - CONFIRMATION OF CLEANUP																														
SAMPLING/ANALYSIS - WASTEWATER TREATMENT		■			■			■			■			■			■			■			■			■			■	
MOBILIZATION/DEMOBILIZATION				■	■	■	■	■	■	■	■	■	■	■	■	■	■													
REMOVAL OF COAL TAR RELEASE																						■					■	■	■	■
REMOVAL OF CONTAMINATED DEBRIS	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
ON-SITE TREATMENT OF CANAL WATER	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
CLEANING/SEALING OF SHEET PILING	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
CONTAINMENT/SKIMMING OPERATIONS	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
SITE MANAGEMENT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

FAX COVER SHEET

KOPPERS INDUSTRIES, INC.
3900 S. LARAMIE AVENUE
CICERO, IL 60650

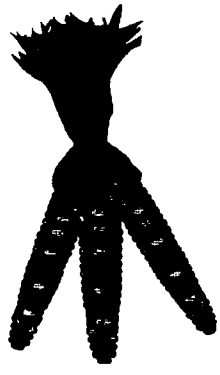
TELEPHONE: (708) 656-5900
FAX: (708) 656-6079

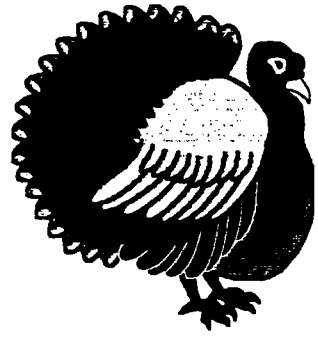
Date: 11-22-95	**Happy Thanksgiving!!!**

Company Name:	USEPA
Contact Name:	Len Zintak
Location:	Chicago
Fax Number:	312-353-9176

Sender:	Mark Cilley
Message:	1. Time estimate for barge restriction.
	2. Bi Monthly progress report

Number of pages (including cover sheet):	22
If there are any problems with this transmission, please call the sender immediately at (708) 656-5900	





IT'S TURKEY TIME !!!

5

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

HAND DELIVERED

December 1,1995

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Bi Weekly Progress Report

Dear Mr. Zintak:

Since the last report, Superior Special Services, Inc. has begun their dredging operations and has almost completed the contaminated section east of the area completed by the EMS dive team. The remaining area is from 75 to 91 feet south and 40 to 200 feet east on the extent of contamination map. FG Enterprises has been contracted to remove the dredged material from the API seperators which will be stabilized using bottom ash from American Fly Ash Company. A core sample of the stabilized material has been sent for analysis and communications have been made with County Environmental of Livingston in Pontiac, Illinois regarding disposal.

Due to the restrictions placed on operations by the U.S. Coast Guard, additional equipment (i.e. 6000# wrecking ball and an additional Cat) is being mobilized to site on Saturday December 2, 1995. The additional equipment will be used to anchor the dredge cable on the east end of the operations eliminating the need for the work barge currently being used (which would extend out further than the 70 foot limit imposed by the Coast Guard). Plans are to have all equipment in place and ready to continue dredging operations on December 2, 1995.

Additional maintenance activities will be completed on Saturday during the evening hours to eliminate restrictions in the pumping line (i.e. removing internal butterfly on valves).

The total volume of treated water discharged to the Chicago Sanitary and Shipping Canal is 14,159,520 gallons. Attached is a table of daily flows and analytical results of the discharge.

If you have any further questions, please call me at (708) 656-5900.

RE: Bi Weekly Progress Report

ext. 3450

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: G. E. Trent III
W. E. Swearingen K-1801
James R. Morrin, Esq.

Daily Flow

Date	Gallons/ Minute	Gallons/Day
10/11/95	180	259200
10/12/95	190	273600
10/13/95	210	302400
[illegible]/95	200	288000
10/15/95	195	280800
10/16/95	195	280800
10/17/95	195	280800
10/18/95	195	280800
10/19/95	195	280800
10/20/95	200	288000
10/21/95	200	288000
10/22/95	200	288000
10/23/95	200	288000
10/24/95	200	288000
10/25/95	200	288000
10/26/95	200	288000
10/27/95	250	360000
10/28/95	265	381600
10/29/95	265	381600
10/30/95	265	381600
10/31/95	265	381600
11/1/95	265	381600
11/2/95	265	381600
11/3/95	260	374400
11/4/95	260	374400
11/5/95	260	374400
11/6/95	260	374400
[illegible]7/95	260	374400
[illegible]8/95	160	230400
11/9/95	260	374400
11/10/95	190	273600
11/11/95	200	288000
11/12/95	260	374400
11/13/95	260	374400
11/14/95	260	374400
11/15/95	260	374400
11/16/95	260	374400
11/17/95	270	388800
11/18/95	260	374400
11/19/95	208	299520
11/20/95	190	273600
11/21/95	180	259200
11/22/95	160	230400
11/23/95	160	230400
11/24/95	120	172800
11/25/95	100	144000
11/26/95	100	144000
11/27/95	100	144000
11/28/95	120	172800
11/29/95	140	201600
11/30/95	168	241920
12/1/95	201.6	290304

Total Flow: 14159520 Gallons

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134807

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/21/95

Sample Description: Wastewater Grab Effluent Outfall 11/21/95
Sample No.: 37492

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeber

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134808-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/21/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37491

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134808

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/21/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37491

pH (units)	7.00
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wing

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134840

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/29/95
Sample Received: 11/24/95

Sample Description: Wastewater Grab Effluent Outfall 11/24/95
Sample No.: 37660

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zehr

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134806-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/24/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37659

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134806

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/24/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37659

pH (units)	6.99
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134456

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/21/95
Sample Received: 11/18/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37329

pH (units)	6.98
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134607

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 11/28/95
Report Date: 11/22/95
Sample Received: 11/12/95

Sample Description: Wastewater Grab Effluent Outfall 11/12/95
Sample No.: 36766

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zehr

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134871

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/30/95
Sample Received: 11/27/95

Sample Description: Wastewater Grab Effluent Outfall 11/27/95
Sample No.: 37713

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

KOPPERS INDUSTRIES, INC.

Stickney Terminal Removal Project

December 1995

ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31
SAMPLING/ ANALYSIS - INITIAL EXTENT OF CONTAMINATION																														
SAMPLING ANALYSIS - CONFIRMATION OF CLEANUP																										■	■	■	■	■
SAMPLING/ANALYSIS - WASTEWATER TREATMENT			■			■			■			■			■			■			■			■			■			■
MOBILIZATION/DEMOBILIZATION	■																													
REMOVAL OF COAL TAR RELEASE		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								
REMOVAL OF CONTAMINATED DEBRIS	■			■	■	■	■	■			■	■	■	■	■			■	■	■	■	■			■	■	■	■	■	
ON-SITE TREATMENT OF CANAL WATER	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
CLEANING/SEALING OF SHEET PILING																														
CONTAINMENT/SKIMMING OPERATIONS	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
SITE MANAGEMENT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

HAND DELIVERED

December 1,1995

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Bi Weekly Progress Report

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Additional maintenance activities will be completed on Saturday during the evening hours to eliminate restrictions in the pumping line (i.e. removing internal butterfly on valves).

The total volume of treated water discharged to the Chicago Sanitary and Shipping Canal is 14,159,520 gallons. Attached is a table of daily flows and analytical results of the discharge.

If you have any further questions, please call me at (708) 656-5900.

RE: Bi Weekly Progress Report

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: G. E. Trent III
W. E. Swearingen K-1801
James R. Morrin, Esq.

Daily Flow

Date	Gallons/ Minute	Gallons/Day
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13/95	210	302400
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10/21/95	200	288000
10/22/95	200	288000
10/23/95	200	288000
10/24/95	200	288000
10/25/95	200	288000
10/26/95	200	288000
10/27/95	250	360000
10/28/95	265	381600
10/29/95	265	381600
10/30/95	265	381600
10/31/95	265	381600
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11/5/95	260	374400
11/6/95	260	374400
/7/95	260	374400
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11/16/95	260	374400
11/17/95	270	388800
11/18/95	260	374400
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11/23/95	160	230400
11/24/95	120	172800
11/25/95	100	144000
11/26/95	100	144000
11/27/95	100	144000
11/28/95	120	172800
11/29/95	140	201600
11/30/95	168	241920
2/1/95	201.6	290304

Total Flow: 14159520 Gallons

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134807

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/21/95

Sample Description: Wastewater Grab Effluent Outfall 11/21/95
Sample No.: 37492

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zehr

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134808-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/21/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37491

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134808

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/21/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37491

pH (units)	7.00
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134840

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/29/95
Sample Received: 11/24/95

Sample Description: Wastewater Grab Effluent Outfall 11/24/95
Sample No.: 37660

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134806-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/24/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37659

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zehr

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134806

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/28/95
Sample Received: 11/24/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37659

pH (units)	6.99
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134456

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/21/95
Sample Received: 11/18/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37329

pH (units)	6.98
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134607

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 11/28/95
Report Date: 11/22/95
Sample Received: 11/12/95

Sample Description: Wastewater Grab Effluent Outfall 11/12/95
Sample No.: 36766

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134871

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/30/95
Sample Received: 11/27/95

Sample Description: Wastewater Grab Effluent Outfall 11/27/95
Sample No.: 37713

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

KOPPERS INDUSTRIES, INC.

Stickney Terminal Removal Project

December 1995

ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31
SAMPLING/ ANALYSIS - INITIAL EXTENT OF CONTAMINATION																														
SAMPLING ANALYSIS - CONFIRMATION OF CLEANUP																														
SAMPLING/ANALYSIS - WASTEWATER TREATMENT																														
MOBILIZATION/DEMOBILIZATION																														
REMOVAL OF COAL TAR RELEASE																														
REMOVAL OF CONTAMINATED DEBRIS																														
ON-SITE TREATMENT OF CANAL WATER																														
CLEANING/SEALING OF SHEET PILING																														
CONTAINMENT/SKIMMING OPERATIONS																														
SITE MANAGEMENT																														

Superior Special Services, Inc.
2905 Paine Avenue
P.O. Box 1249
Sheboygan, Wisconsin 53082-1249
(414) 458-6030
FAX (414) 452-7254

November 3, 1995

Koppers Industries, Inc
3900 S. Laramie Ave.
Cicero, IL 60650

Dear Mr. Mark Cilley;

This letter is to confirm our conversation regarding the fact that Superior Special Services has the equipment and personnel to be mobilized to your site at 3900 South Laramie Ave. Cicero, Illinois by November 10, 1995. It will take Superior Special Services several working days to perform adequate setup. Superior expects to be operational with the dredge sometime the week of the 13th.

Very truly yours,

Christopher M. Hohol, CET
Director of Operations

Earl Wilhelm
Senior Project Manager

November 3, 1995

Koppers Industries, Inc.
3900 S. Laramie Ave.
Cicero, Il. 60650

Dear Mr. Mark Cilley;

Thank you for allowing Superior the opportunity to present the option of hydraulic dredging to remediate your spill situation. We are quite confident that this approach is the most feasible and cost effective.

As we discussed, following is a list of references you may contact to discuss Superiors capabilities and past performances.

Mr. Tom Praeger
Principal Env Engineer
Mercury Marine, Inc
414-929-5500

Mr Rick Difiore
Director of Field Operations
B B & L, Inc
315-446-2570

Mr Chet Tadych
Operating Manager
Manitowoc WWTP/sanitary district
414-683-4515

Mr David Taylor
Special Projects Coordinator
Madison Metro Sewage District
608-222-1201

Robert M Rosdil
Environmental Plant Manager
Maple Leaf Farms
414-878-1234

Lamont Risseeuw
Operator
Cedar Grove WWTP
414-668-6523

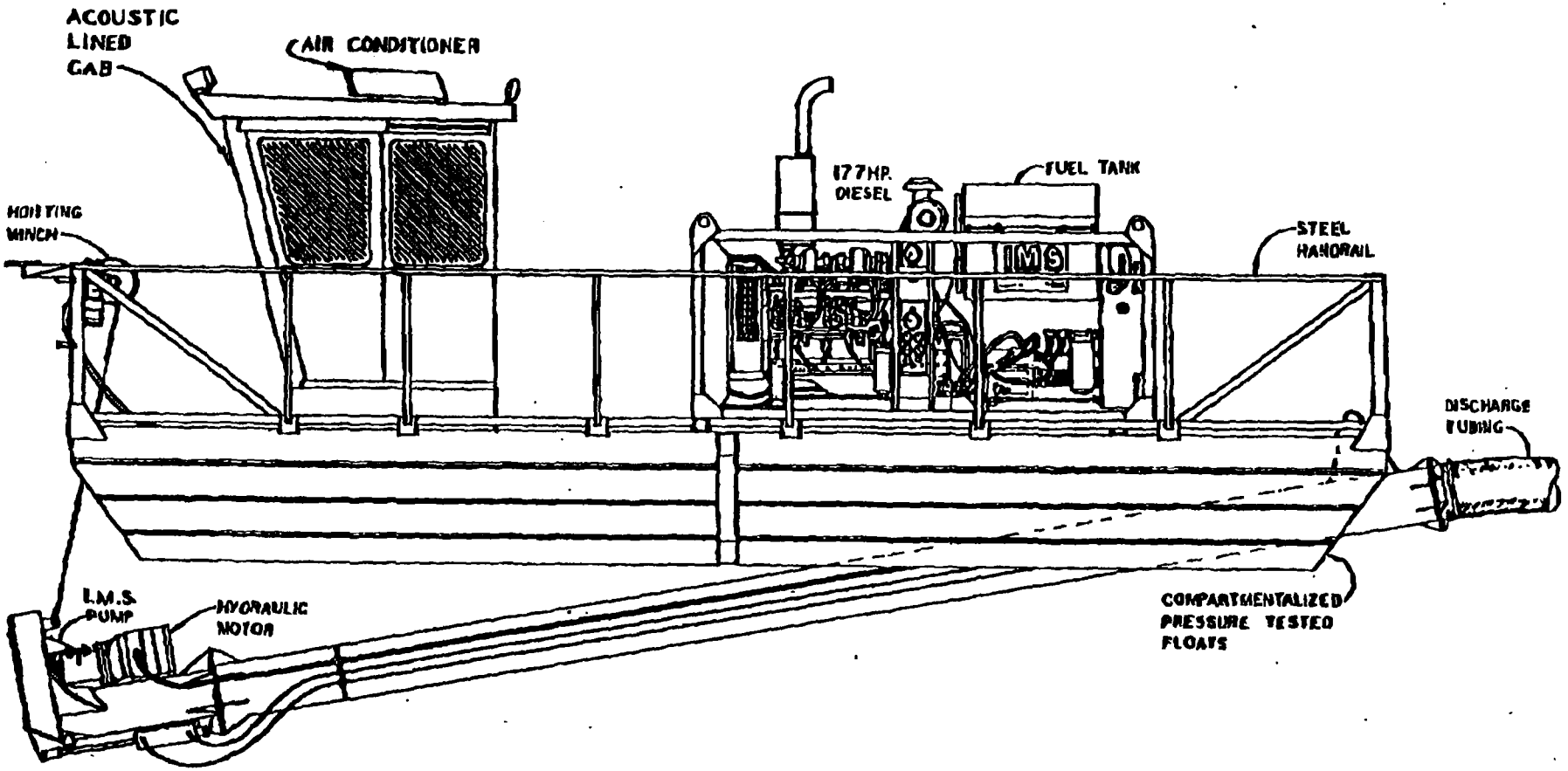
Superior has arranged to have Koppers Industries listed as an additional insured on our insurance policy. As such, you should be receiving a copy of an insurance certificate within two (2) days. Please feel free to contact us if you have any questions.

Very truly yours;

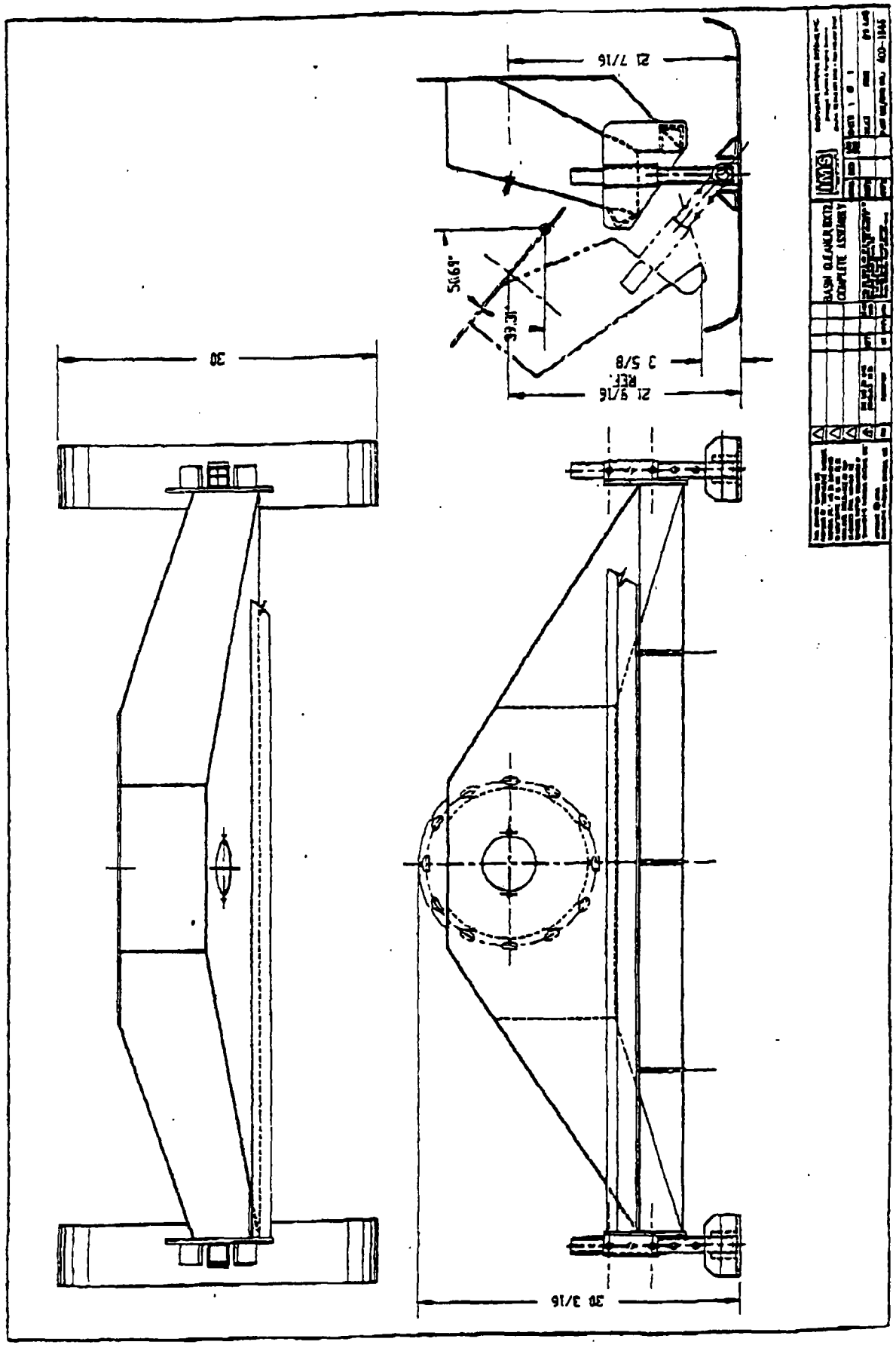
Christopher M Hohol, CET
Director of Operations

Earl Wilhelm
Senior Project Manager

INNOVATIVE MATERIAL SYSTEMS



IMS
INNOVATIVE MATERIAL SYSTEMS


21 7/16
56.69°
33.31°
3 5/8
21 9/16
REF.
30
30 3/16
BASIN CLEANER EXT2
COMPLETE ASSEMBLY
400-1946

IMS VERSI-DREDGE SPECIFICATIONS

IMS has designed and built the 177 H.P. Power Unit as a self-contained and portable hydraulic power source. The primary purpose of the power unit is to furnish high pressure fluid to power the hydraulically driven IMS pumping systems.

Standard Equipment:

Engine - Cummins Model 6BTA5.9
6-cylinder Turbocharged after-cooled diesel

Hydraulic Pump - Sperry Vickers 3525VQ38A1711BA20

@ 2400 RPM engine speed full load

Hydraulic Reservoir - 45 gallons
Equipped with low oil level and high oil temperature engine shut-off or alarm contact switches

Engine Specifications
(Refer to accompanying engine manual)

Hydraulic System Specifications
Relief valve setting - 2100 PSI
Hydraulic oil requirement - Cat Series 3
(15W40, 30WT, or 40WT)

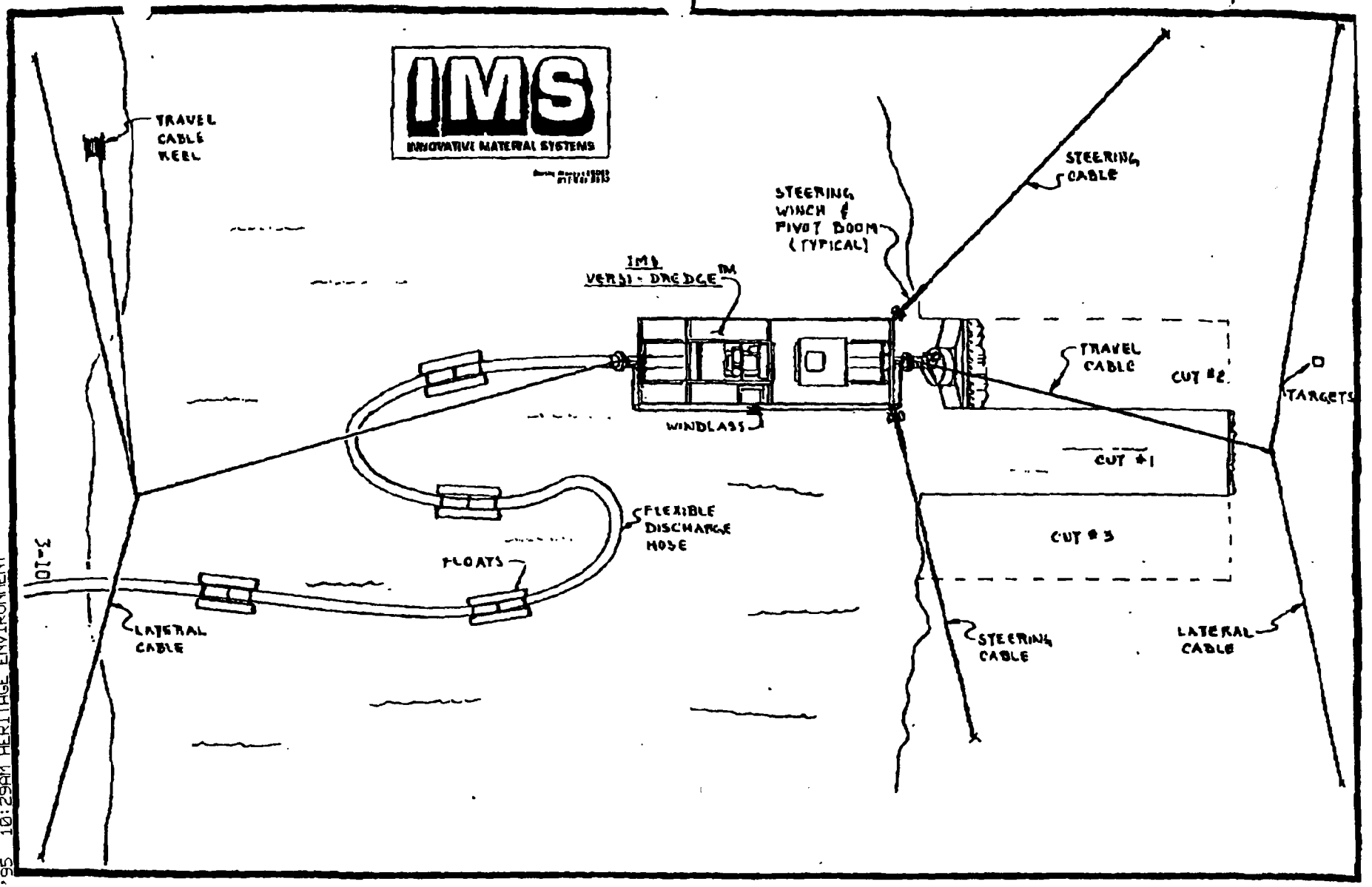
Fuel requirements
Reservoir - 90 gallons
No. 2 Diesel fuel only

STANDARD MODEL

WEIGHT (dry) approx. 9,500 pounds

DRAFT approx. 15 inches (in water)

NOTE; Water has a specific gravity of one (1). DO NOT attempt to operate this equipment on fluids that have a specific gravity less than one (1) without consulting IMS. Damage to equipment could occur.



"TRIPLE CUT SET UP"

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

HAND DELIVERED

November 22,1995

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Time Schedule for IMS Barge Dredging

Dear Mr. Zintak:

As discussed on this date, the following is an estimate of time and activities needed to complete the center portion of the canal dredging to alleviate any concerns of restriction by the U.S. Coast Guard.

Monday November 27, 1995 Begin dredging operations on the eastern end and anticipate that it will take 2 days to complete this area. With the approach of double width barges I would hope that the restriction can be kept in place until the center section is completed. With discussion between myself and Superior, we estimate that it will take at least one week to complete this area. If we ask the Coast Guard for 10 working days with the restriction I believe that this area can be completed and the restriction can be lifted. The restriction would be needed from November 27 - December 1, 1995 and from December 4 - 8, 1995.

I sincerely hope that a resolution can be made on Monday because the safety of the personnel on this operation will be severely at risk if the restriction is not allowed.

If you need any further information, please contact me through the guard at (708) 656-5900.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

6

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

HAND DELIVERED

December 11,1995

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Dredge Configuration

Dear Mr. Zintak:

Due to the restrictions placed on the dredging operations by the U.S. Coast Guard (i.e. 70 foot limit from dock wall toward center of canal), the following configuration has been suggested to alleviate all parties concerns and successfully complete the remediation efforts in the center of the canal:

1. Rigging;
   a. Dredge travel wire will run from a shore winch located at 250 feet east (see attached drawing) out to the East anchor (6,000 lb. wrecking ball) then parallel to the shoreline running west to the West anchor (6,000lb. wrecking ball) then northwest to a winch located the west boundary of Koppers Terminal.

   b. Two 25 lb. weights will be added to the travel wire at either end of the dredge assisting the settling of the travel wire when traffic is approaching.

   c. The 6,000 lb. wrecking ball anchors will be rigged with a retrieval pendant in addition to the travel wire. The anchor buoy will be eliminated.

2. Oncoming Traffic procedure;
   a. Upon notice of approaching traffic, dredging activities will cease. The shore team will slack the travel wire allowing the dredge operator to bring the dredge North to the 50 ft. position. The operator will verify that the travel wire fore and aft has settled to the bottom via the attached weights. The rigging will be in contact with the bottom of the canal with a minimum clearance of 15ft. over the 6,000 lb. anchors.

   b. The containment boom will be placed at the furthest eastern and western

position (approximately 300 ft. east and 900 ft. west). The containment boom will be held in a position across the canal by a 21 ft. pontoon type watercraft (see attached drawing).

c. As oncoming traffic approaches, the watercraft will converge toward each other and inward to the 55-60 ft. position.

If the current rate of remediation stays the same, I expect the vacuuming from the 70 ft. position to the dock wall will be completed by Friday, December 15, 1995. Assuming the above mentioned configuration will be acceptable to all parties, the vacuuming effort at the 140 ft. position should begin on Saturday, December 16, 1995. Approximately two weeks will be needed to complete the remediation from the 140 ft. position to the 70 ft. position.

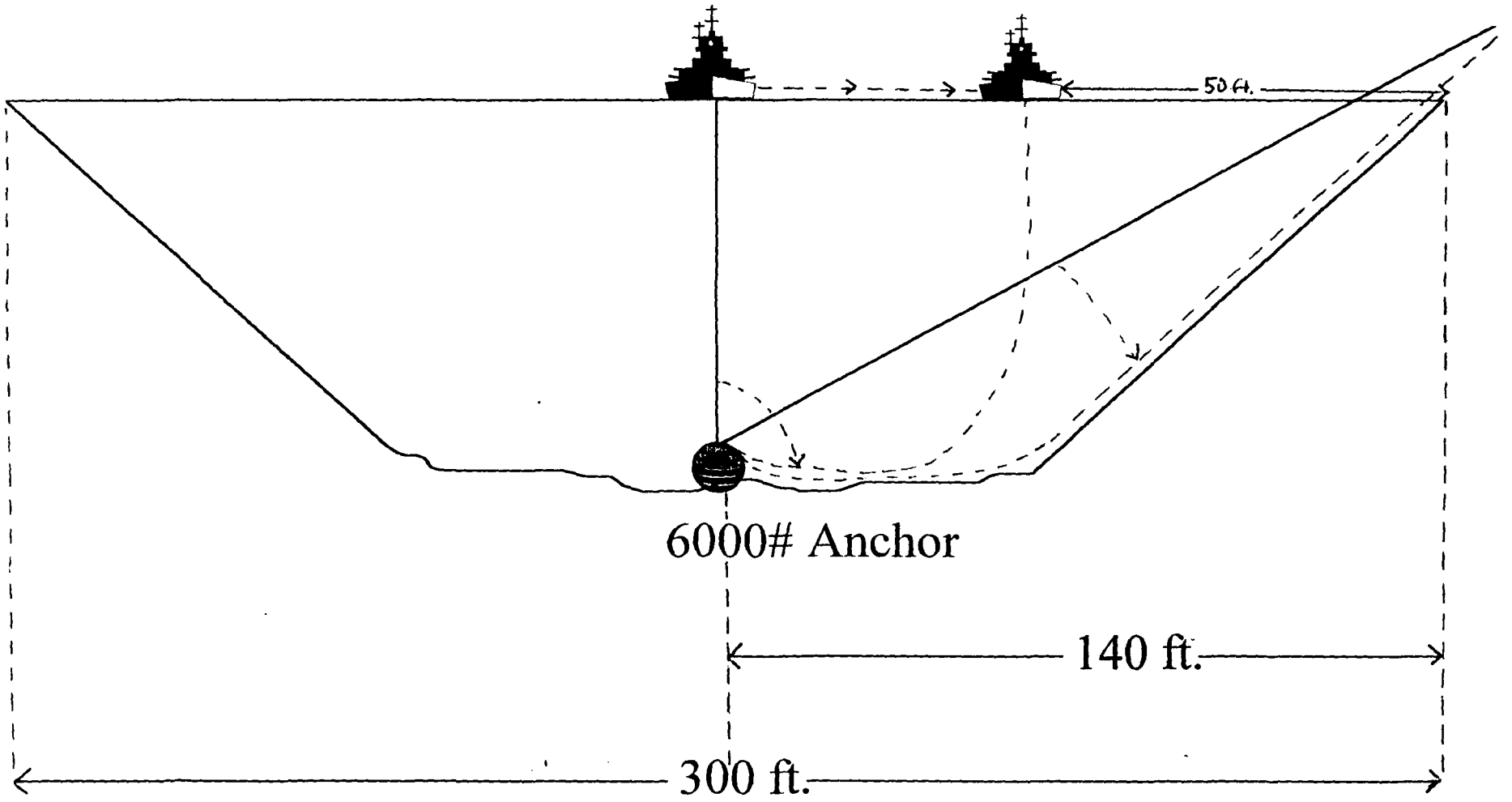
If you have any further questions, please call me at (708) 656-5900.

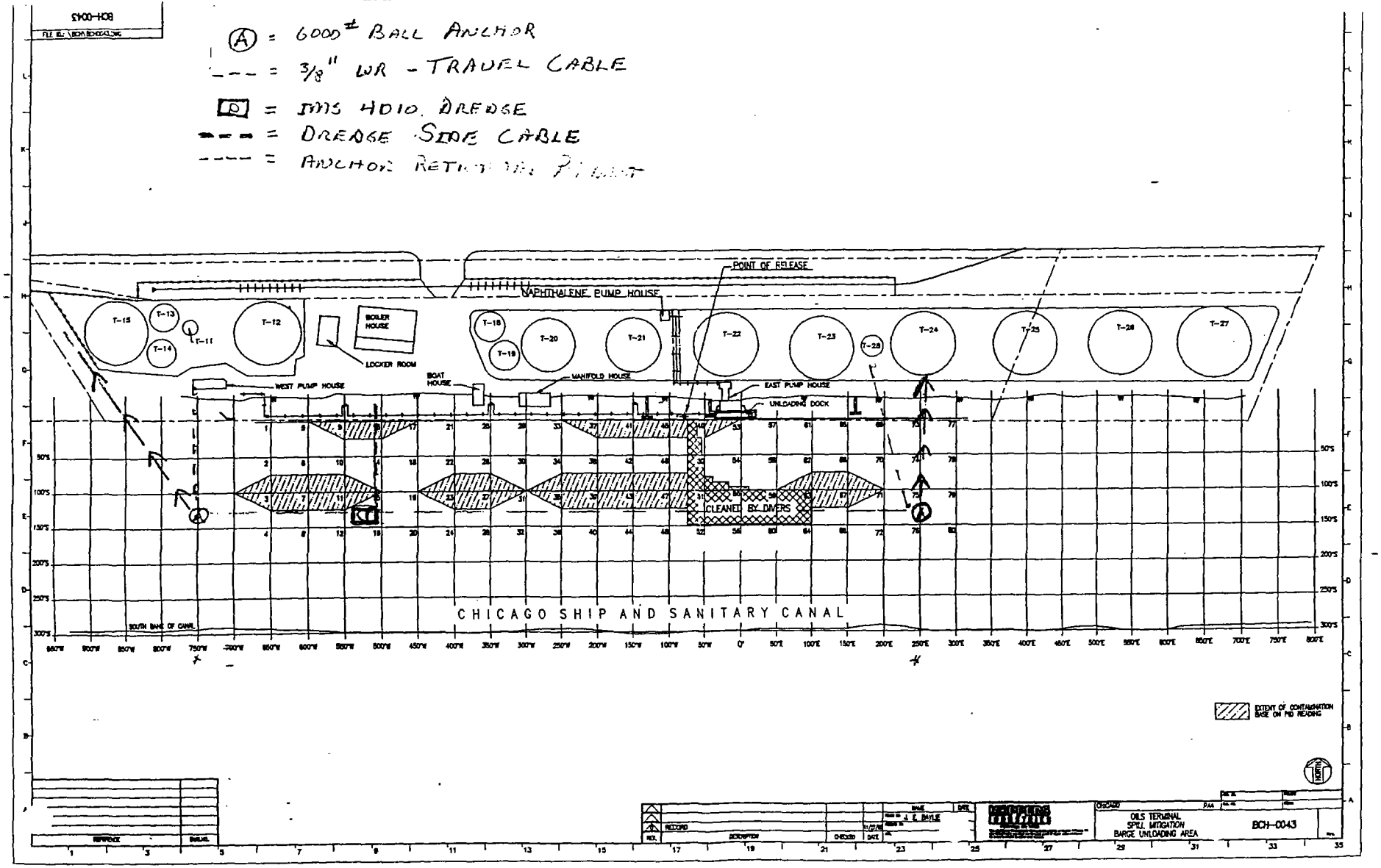
Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: R. Harsh
G. E. Trent III
W. E. Swearingen K-1801
James R. Morrin, Esq.

IMS Dredge





BCH-0043
(A) = 6000# BALL ANCHOR
--- = 3/8" WR - TRAVEL CABLE
D = IMS 4010 DREDGE
= DREDGE SIDE CABLE
---- = ANCHOR RETRIEVAL PIGGIT
POINT OF RELEASE
NAPHTHALENE PUMP HOUSE
BOILER HOUSE
LOCKER ROOM
WEST PUMP HOUSE
BOAT HOUSE
MANIFOLD HOUSE
EAST PUMP HOUSE
UNLOADING DOCK
CLEANED BY DIVERS
CHICAGO SHIP AND SANITARY CANAL
SOUTH BANK OF CANAL
EXTENT OF CONTAMINATION BASE ON PID READING
NORTH
J. E. BAYLIE
OILS TERMINAL
SPILL MITIGATION
BARGE UNLOADING AREA
BCH-0043

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

VIA FACSIMILE

December 15,1995

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Bi Weekly Progress Report

Dear Mr. Zintak:

Since the last report, Superior Special Services, Inc. is continuing their dredging operations and has completed the section from 70 feet south to 35 feet south and from 50 feet east to 720 feet west. Attached, is a log of the areas completed as of December 14, 1995. FG Enterprises has continued to remove the dredged material from the API seperators which is being stabilized using bottom ash from American Fly Ash Company. As of this date 35 loads (approximately 7 cubic yards each) have been removed and stabilized from the API seperators. 36 loads (approximately 15 cubic yards each and weighing 1,290,200 pounds) of stabilized coal tar and sediment have been shipped to County Environmental of Livingston (copies of manifest are attached).

Additional equipment (i.e. 6000# wrecking ball and an additional Cat) is on site (as of December 2, 1995) and being used to anchor the dredge cable on the east end of the operations eliminating the need for the work barge currently being used (which would extend out further than the 70 foot limit imposed by the Coast Guard). Additional plans for completing the vacuuming outside the 70 foot limit were handed to you on December 11, 1995 and we are currently awaiting a reply to this proposal from the U.S. Coast Guard.

Additional maintenance activities were completed on Tuesday and Wednesday December 5 & 6, 1995 during the evening hours to eliminate restrictions in the pumping line (i.e. removing internal butterfly on valves).

A revised scope of work was received today from Environmental Testing Services (ETS) for the confirmation of cleanup sampling. Work on the plan itself should begin early next week and will take approximately one week to complete.

RE: Bi Weekly Progress Report

The total volume of treated water discharged to the Chicago Sanitary and Shipping Canal is 19,161,504 gallons. Attached is a table of daily flows and analytical results of the discharge.

If you have any further questions, please call me at (708) 656-5900.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: R.Harsh
G. E. Trent III
W. E. Swearingen K-1801
James R. Morrin, Esq.

Date	Mark Pass South	From	To
11-27	145'	240' East	0'
11-27	145'	240' East	0'
11-28	140'	240' East	0
11-28	140'	240' East	0'
11-28	135'	240' East	10' east
11-29	130'	240 East	10' east
11-29	125	240 East	10 east
11-30	120'	240 East	10' east
11-30	125'	240 East	10 east
11-30	120	240 East	10 east
11-30	115	240 East	100 East
12-1	115'	240 East	10 east
12-1	110	240' East	40 east
12-1	105	240 East	40 east
12-1	100	240' East	40 east
12-1	100	240' East	40 east
12-1	95	240' East	40 east
12-3	70'	200 East	700 west
12-3	70'	200 East	700 west
12-4	65'	200 East	700 west
12-4	65'	200 East	110 west
12-5	65'	110 west	700 west
12-5	60'	200' East	325' west
12-6	60'	325' west	700' west
12-6	60'	200 East	450' west
12-7	60'	450' west	700 west

Date	mark south	From	To
12-7	55'	50' East	700 [illegible]
12-8	50'	50' East	700 [illegible]
12-8	50'	50' East	50' [illegible]
12-12	50'	50 west	700' west
12-12	50'	145' west	265' [illegible]
12-12	45'	50' East	300' west
12-13	45'	300' west	700' [illegible]
12-13	45	125' west	250' west
12-13	45'	140 west	250 [illegible]
12-13	45'	140 west	250' [illegible]
12-13	45'	140' [illegible]	[illegible]
12-13	45'	140' west	225 [illegible]
12-13	45'	150' west	220' [illegible]
12-13	40'	50' East	175 [illegible]
[illegible]	40'	[illegible]	700 [illegible]

EFFLUENT OUTFALL DAILY FLOW

Date	Gallons/ Minute	Gallons/Day
10/11/95	180	259200
10/12/95	190	273600
[illegible]3/95	210	302400
[illegible]4/95	200	288000
[illegible]0/15/95	195	280800
10/16/95	195	280800
10/17/95	195	280800
10/18/95	195	280800
10/19/95	195	280800
10/20/95	200	288000
10/21/95	200	288000
10/22/95	200	288000
10/23/95	200	288000
10/24/95	200	288000
10/25/95	200	288000
10/26/95	200	288000
10/27/95	250	360000
10/28/95	265	381600
10/29/95	265	381600
10/30/95	265	381600
10/31/95	265	381600
11/1/95	265	381600
11/2/95	265	381600
11/3/95	260	374400
11/4/95	260	374400
11/5/95	260	374400
[illegible]/6/95	260	374400
7/95	260	374400
[illegible]/8/95	160	230400
11/9/95	260	374400
11/10/95	190	273600
11/11/95	200	288000
11/12/95	260	374400
11/13/95	260	374400
11/14/95	260	374400
11/15/95	260	374400
11/16/95	260	374400
11/17/95	270	388800
11/18/95	260	374400
11/19/95	208	299520
11/20/95	190	273600
11/21/95	180	259200
11/22/95	160	230400
11/23/95	160	230400
11/24/95	120	172800
11/25/95	100	144000
11/26/95	100	144000
11/27/95	100	144000
11/28/95	120	172800
11/29/95	140	201600
11/30/95	168	241920
	Subtotal #1:	15380640

Date	Gallons/ Minute	Gallons/Day
12/1/95	201.6	290304
12/2/95	202	290880
12/3/95	202	290880
12/4/95	200	288000
12/5/95	180	259200
12/6/95	160	230400
12/7/95	150	216000
12/8/95	120	172800
12/9/95	120	172800
12/10/95	130	187200
12/11/95	150	216000
12/12/95	150	216000
12/13/95	150	216000
12/14/95	150	216000
12/15/95	180	259200
12/16/95	180	259200
	Subtotal #2:	3780864

Total Flow in Gallons:	**19161504**

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134839

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 11/29/95
Sample Received: 11/27/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37712

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	1.1	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	1.2	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	1.2	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	1.6	<0.13	0.13	0.00013
8. Benzo(a)pyrene	1.8	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	2.7	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	0.7	<0.17	0.17	0.00017
11. Chrysene	1.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	0.8	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	0.9	<0.76	0.76	0.00076
16. Phenanthrene	0.3	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134839-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/7/95
Sample Received: 11/27/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 37712

pH (units)	7.23
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☒ RUSH
____day turnaround
☐ ROUTINE

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ____-____-____ COC #: 30586

Company: Koppers
Address: 39th & Lawrence

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: Rob Harsh
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Other: _____

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PAHs, pH, Pb, Zn	BTEX, pH													Comments
Effluent EVC	1	32 oz/kg	G/P	2/1	11/27	11:00			X														
Effluent Grab	↓	16 oz/4 oz	P/G	1/3	↓					X													

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: 11-27-95 Time: [illegible]	Received By: [illegible]	Date: [illegible] Time: [illegible]	Witness:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		☐ TEMPERATURE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134960-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/4/95
Sample Received: 11/30/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 38012

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134960

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/4/95
Sample Received: 11/30/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 38012

pH (units)	7.10
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☒ RUSH
____day turnaround
☐ ROUTINE

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ____-____-____ COC #: 33544

Company: Koppers Industries
Address: 5th & Carmine
Chicago, Il

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: R. Hasl
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Other : _____

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PNA's, pH, Pb, Zn	BTEX, pH													Comments
Effluent EVC	1	[illegible]	G/P	2/1	11/30	11:55			X														
Effluent Grab	↓	16 [illegible]	P/G	1/3	↓	↓				X													

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: 11-- -- Time: [illegible]	Received By: Thomas S. Kaey	Date: 11-30-95 Time: 12:00	Witness:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		☐ TEMPERATURE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

135153

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/6/95
Sample Received: 12/3/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 38217

pH (units)	7.20
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

135153-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/6/95
Sample Received: 12/3/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 38217

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	1.3	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	1.3	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	1.2	<0.13	0.13	0.00013
8. Benzo(a)pyrene	1.5	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	1.5	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	0.7	<0.17	0.17	0.00017
11. Chrysene	1.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	0.9	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	1.2	<0.76	0.76	0.00076
16. Phenanthrene	0.3	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

TURNAROUND TIME:
☒ RUSH
____day turnaround
☐ ROUTINE

Chain of Custody Record

Due Date:____-____-____ COC #: 30588

Company: [illegible]
Address: [illegible]

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #:________ Proj. #:_____-____
Client Contact: [illegible]
Project ID / Location:________

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other: ________

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Preservative:
1. None 3. HNO3
2. H2SO4 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	[illegible]	[illegible]													Comments
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			X														
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					X													

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By: [illegible]	Date: [illegible] Time: [illegible]	Received By: [illegible]	Date: [illegible] Time: [illegible]	Witness:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		☐ TEMPERATURE

SPECIAL INSTRUCTIONS:

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Rogers Industries, Inc. 3700 S. Lorenzo Rd. Peoria, IL 61607 | Location If Different

A. Illinois Manifest Document Number: IL 6809952 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: IL 0 1 8 0 0 0 1 4

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-597-5580

5. Transporter 1 Company Name: Waste Management | 6. US EPA ID Number

C. Illinois Transporter's ID: 0 0 0 0 1

D. (708) 597-5580 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Environmental Services, Rt. 64 & Pontiac, IL 61764-0040 | 10. US EPA ID Number

G. Illinois Facility's ID: IL 1 5 0 1 8 0 0 0 0 2

H. Facility's Phone: (815) 844-3911 RH

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
GENERATOR a. Waste Coal Tar Soil Non-Hazardous	001	DM	30	1	EPA HW Number: XX; Authorization Number: 9412HPC
b.					EPA HW Number: XX; Authorization Number:
c.					EPA HW Number: XX; Authorization Number:
d.					EPA HW Number: XX; Authorization Number:

Additional Description for Materials Listed Above: 1st Load - 15Y; 2nd Load - 15Y

K. Handling Codes for Wastes Listed Above in Item #14:

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Robert A. Hall E.H.S. Sup. | Signature: Robert A. Hall | Date: Month 12 Day 13 Year 05

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Lee Helman | Signature | Date: Month 12 Day 13 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACI

19. Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 95658 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Rippers Industries, Inc. 3001 S. Langmin Ave. Pontiac IL 60650 | Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809951 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 592-3388 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR#3 Box 646 Pontiac, IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1508210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar Non-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load 15y; 2nd Load 15y

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Robert A. Harish E.H.&S Sup. | Signature: Robert A. Harish | Date: Month 12 Day 13 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Eugene Harper | Signature: [signature] | Date: Month 12 Day 13 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [illegible] materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. [illegible] | 2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

Generator's Name and Mailing Address: [illegible] Industries, Inc. 5000 S. Laramie Ave. Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809950 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*: 708-636-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number:

C. Illinois Transporter's ID: 0207

D. (708) 597-3[illegible] Transporter's Phone

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. Illinois Transporter's ID:

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston, Rt#3 Box 646, Pontiac, IL 61764-0646

10. US EPA ID Number:

G. Illinois Facility's ID: 1508210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil Non-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load - 15y; 2nd Load - 15y

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Robert A. Marsh E.H.S. Sup. | Signature: [signature] | Date: Month 12 Day 13 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Scott Cruise | Signature: Scott Cruise | Date: Month 12 Day 13 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: | Signature: | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: | Signature: | Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 95[illegible] | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: [illegible] Industries, Inc. 2[illegible] S. Lavanne Ave. Cicero, IL 60650 | Location If Different

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-[illegible]

A. Illinois Manifest Document Number: IL 6809949 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 03V 6280004

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. 708-[illegible] Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR#3 Box 646 Pontiac, IL 61764-[illegible] | 10. US EPA ID Number

G. Illinois Facility's ID: 75082V0002

H. Facility's Phone: (815) 844-[illegible]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	0.01	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load 15y; 2nd Load 15y

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Robert H. Marsh E.H.S. Sup | Signature: Robert Marsh | Date: Month 12 Day 13 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month 12 Day 13 Year 91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 8055 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Poppers Industries, Inc. 3700 S. Lamon Ave. Cicero, IL 60650 | Location If Different

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809947 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 031 6280004

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. 708 597-3380 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR#3 Box 646 Pontiac, IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15y; 2nd Load - 15y

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: Robert A Harsh E, H+S Sup. | Signature: Robert A Harsh | Date: Month 12 Day 13 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Gerald E Stockdale | Signature: [signature] | Date: Month 12 Day 13 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

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STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95054

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Poppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809946 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. 708 547-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR#3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: 815 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15Y; 2nd Load - 15 PH

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: Robert A Harsh E,H+S Sup. Signature: [signature] Date: Month Day Year 12 12 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: LEE Holman Signature: [signature] Date: Month Day Year 12 12 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date: Month Day Year

19. Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date: Month Day Year

GENERATOR

TRANSPORTER

FACI

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12 pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 15053 | 2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Pepper Industries, Inc. [illegible] Location If Different

4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" [illegible]

A. Illinois Manifest Document Number: IL 6809945 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	001	DT	00[illegible] 30 RA	Y	EPA HW Number XX; Authorization Number 942900
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load 15Y; 2nd Load 20 PH 15Y

K. Handling Codes for Wastes Listed Above in Item #14.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: Robert H. Harsh E, H+S Sup | Signature: Robert H. Harsh | Date: Month 12 Day 13 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Scott Cruise | Signature: Scott Cruise | Date: Month 12 Day 12 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [illegible] materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR

TRANSPORTER

FAC

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

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STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 15053 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, 5900 S. Laramie Ave., Cicero, IL 60650 | Location If Different

A. Illinois Manifest Document Number: IL 6809944 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*: 708-656-5900

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3316 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston, RR#3 Box 646, Pontiac, IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-7911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	0.0.1	DT	000030 RH-Y		EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load - 15 yds; 2nd Load 30 yds RH 15y

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: Robert H. Harsh E.H+S Sup. | Signature: [signature] | Date: Month 12 Day 12 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Eugene Harper | Signature: [signature] | Date: Month 12 Day 12 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~[illegible]~~ materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR / TRANSPORTER / FAC.

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95051

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave. Cicero IL 60650

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809943 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	0.0.1	DJ	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load - 15y; 2nd load - 15y

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mark A. Cilley E, H + S Mgr

Signature: Mark A. Cilley

Date: Month Day Year: 1 7 1 2 9 5

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible]

Signature: [illegible]

Date: Month Day Year: 1 7 1 2 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name

Signature

Date: Month Day Year

GENERATOR

TRANSPORTER

FAC.

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

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STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95050

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Hoppers Industries, Inc. 3900 S. Laramie Ave Cicero, IL 60650

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809942 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON - Hazardous	0.0.1	DJ	00030 RH	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load - 15Y; 2ND Load - ~~30Y~~ 15Y RH

K. Handling Codes for Wastes Listed Above in Item #14

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Printed/Typed Name: Mark A. Cilley E.H+S Mgr. Signature: Mark A. Cilley Date: Month 12 Day 12 Year 15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Jerry Stockdale Signature: Jerry Stockdale Date: Month 12 Day 12 Year 15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date: Month Day Year

GENERATOR

TRANSPORTER

FAC

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COPY 5. GENERATOR MAIL TO IEPA (RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 95049 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave Cicero, IL 60650 | Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809941 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

C. Illinois Transporter's ID: 0207

D. (708) 497-3380 Transporter's Phone

E. Illinois Transporter's ID

F. Transporter's Phone

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address: County Env. Of Livingston RR #3 Box 646 Pontiac, IL 61764-0646 | 10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	0.01	D.T	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load = 15Y; 2nd Load = 15Y

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark A. Cilley E, H+S Mgr. | Signature: Mark A. Cilley | Date: Month 12 Day 11 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: LEE HOLMAN | Signature: [signature] | Date: Month 12 Day 11 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR

TRANSPORTER

FACI

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY / DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM-[redacted] WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 95048 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave Cicero, IL 60650 | Location If Different

A. Illinois Manifest Document Number: IL 6809940 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0 3 1 6 2 9 0 0 0 4

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5400

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0 2 0 7

D. (708) 597-3330 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1 0 5 8 2 1 0 0 0 2

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	0.0.1	D.T	0.0.0.3	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load 15 yds; 2nd Load 15 yds

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: Mark A. Cilley E, H+S Mgr. | Signature: Mark A. Cilley | Date: Month 12 Day 11 Year 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Eugene Halpin | Signature | Date: Month 12 Day 11 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACI

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95047

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc, 3900 S. Laramie Ave., Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809939 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0311618000 4

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0121017

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston, RR#3 Box 646, Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar & Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number: XX; Authorization Number: 942400
b.					EPA HW Number: XX; Authorization Number:
c.					EPA HW Number: XX; Authorization Number:
d.					EPA HW Number: XX; Authorization Number:

J. Additional Description for Materials Listed Above: 1st Load - 15 yds; 2nd Load 15 yds

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: Mark A. Cilley E, H+S Mgr. Signature: Mark A. Cilley Date (Month Day Year): 12/11/95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Scott Cour. Signature: Scott Cour Date (Month Day Year): 12/11/95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date (Month Day Year):

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Signature: Date (Month Day Year):

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA (RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS — EPA DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95046

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809938 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR#3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON Hazardous	0.0.1	DJ	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load 15 Y; 2nd load 15 Y

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 *selected the best waste management method that is available to me and that I can afford.*

Printed/Typed Name	Signature	Date (Month Day Year)
Mark A. Cilley E, H&S Mgr	Mark A. Cilley	12 08 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Larry Overgaard	Larry Overgaard	12 08 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Date (Month Day Year)

GENERATOR — TRANSPORTER — FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS — ENVIRONMENTAL PROTECTION AGENCY — BUREAU OF LAND — POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 3-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 45045

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Hoppers Industries, Inc. 3400 S. Laramie Ave. Cicero, IL 60650

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address: County Env. Of Livingston RR#3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

A. Illinois Manifest Document Number: IL 6809937 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0311628000 4

C. Illinois Transporter's ID: 0 2 0 7

D. (708) 597-3380 Transporter's Phone

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

G. Illinois Facility's ID: 1 0 5 8 2 1 0 0 0 2

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	0.01	DT	00030	Y	EPA HW Number XX; Authorization Number 9H2400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load 13 yds

K. Handling Codes for Wastes Listed Above in Item 14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark A. Cilley E, H+S Mgr. Signature: Mark A. Cilley Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] Signature: [illegible] Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date: Month Day Year

FACI

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS — ENVIRONMENTAL PROTECTION AGENCY — DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. — Manifest Document No. 95044

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address — Location If Different
Koppers Industries, Inc.
3900 S. Laramie Ave.
Cicero, IL 60650

A. Illinois Manifest Document Number: IL 6809936 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0 3 1 6 2 8 0 0 0 4

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 706-656-5900

5. Transporter 1 Company Name: Waste Systems — 6. US EPA ID Number

C. Illinois Transporter's ID: 0 2 0 7

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name — 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address — 10. US EPA ID Number
County Env. of Livingston
RR#3 Box 646
Pontiac, IL 61764-0646

G. Illinois Facility's ID: 1 0 5 8 2 1 0 0 0 2

H. Facility's Phone: 815 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 9R2400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Descriptions for Materials Listed Above
1st Load ~~[illegible]~~ 15Y
2nd Load 15Y

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mark A. Cilky E.H&S Mgr. — Signature: Mark A. Cilky — Date (Month Day Year): 1 2 0 9 9 5

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: LEE HOCHMAN — Signature: [illegible] — Date (Month Day Year): 1 2 0 8 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date (Month Day Year)

FACI

19. Discrepancy Indication Space

[illegible]. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name — Signature — Date (Month Day Year)

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

In case of a spill call the Illinois Office of Emergency Response at 217/782-7860 and the National Response Center at 800/424-8802 or 202/426-2675.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95043

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Roppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809935 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0 3 1 6 2 8 0 0 0 4

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS: 708-656-5900

C. Illinois Transporter's ID: 0 2 0 7

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. Of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1 0 5 8 9 1 0 0 0 2

H. Facility's Phone: 815 844 3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON Hazardous	0 0 1	DT	0 0 0 3 0	Y	EPA HW Number: XX; Authorization Number: 9 4 3 4 0 0
b.					EPA HW Number: XX; Authorization Number:
c.					EPA HW Number: XX; Authorization Number:
d.					EPA HW Number: XX; Authorization Number:

Additional Description for Materials Listed Above: 1st Load - 15 yds; 2nd Load - 15 yds

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: Mark A. Cilley E,H+S Mgr. Signature: Mark A. Cilley Date (Month Day Year): 1 2 0 8 9 5

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] Signature: [illegible] Date (Month Day Year): 1 2 0 8 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date (Month Day Year):

19. Discrepancy Indication Space

). Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Signature: Date (Month Day Year):

GENERATOR

TRANSPORTER

FACI

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95042

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809934 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3580 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. Of Livingston RR#3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load - 15 yds; 2nd Load - 15 yds

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: Mark A. Cilley E,H+S Mgr. Signature: Mark A. Cilley Date: Month 12 Day 08 Year 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Jerry Stockdale Signature: Jerry Stockdale Date: Month 12 Day 08 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date: Month Day Year

FACI

19. Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Signature: Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA (RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95040

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809932 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0311628 0004

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston R.R. #3 Box 646 Pontiac IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON - Hazardous	001	DT	00030	Y	EPA HW Number: XX; Authorization Number: 942400
b.					EPA HW Number: XX; Authorization Number:
c.					EPA HW Number: XX; Authorization Number:
d.					EPA HW Number: XX; Authorization Number:

Additional Description for Materials Listed Above

1st Load - 15 Yds
2nd Load - 15 Yds

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mark A. Cilley E, H&S Mgr. Signature: [signature] Date (Month Day Year): 11 17 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Steve Mockovak Signature: [signature] Date (Month Day Year): 11 17 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date (Month Day Year):

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Bill Sauer Signature: [signature] Date (Month Day Year): 11 17 95

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2 Sections 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY OFFICE OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95037

2. Page 1 of 1

Information in the shaded areas is not required by Federal law but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809929 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0 3 1 6 2 8 0 0 0 4

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS: 708-656-5900

5. Transporter 1 Company Name: Ozinga Transportation Sys.

6. US EPA ID Number

C. Illinois Transporter's ID: 1 0 7 0

D. (708) 388-6257 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Environmental of Livingston R.R. #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1 0 5 8 2 1 0 0 0 2

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	0.0.1	CM	00030	Y	EPA HW Number: XX; Authorization Number: 942400
b.					EPA HW Number: XX; Authorization Number:
c.					EPA HW Number: XX; Authorization Number:
d.					EPA HW Number: XX; Authorization Number:

Additional Description for Materials Listed Above: 1st Load - 15 yds; 2ND LOAD - 15 YDS; T365; 2 LOADS = 30-YDS

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: Mark A. Cilley E,H+S Mgr. Signature: Mark A. Cilley Date (Month Day Year): 11 16 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: JOHN DREATH Signature: [signature] Date (Month Day Year): 11 16 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date (Month Day Year):

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Bill Niner Signature: [signature] Date (Month Day Year): 11 16 95

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2 Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

COPY 1. TSD MAIL TO GENERATOR

KOPPERS INDUSTRIES, INC.

Stickney Terminal Removal Project

December 1995

ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31
SAMPLING/ ANALYSIS - INITIAL EXTENT OF CONTAMINATION																														
SAMPLING ANALYSIS - CONFIRMATION OF CLEANUP																														
SAMPLING/ANALYSIS - WASTEWATER TREATMENT																														
MOBILIZATION/DEMOBILIZATION																														
REMOVAL OF COAL TAR RELEASE																														
REMOVAL OF CONTAMINATED DEBRIS/WASTE COAL TAR																														
ON-SITE TREATMENT OF CANAL WATER																														
SAMPLING/ANALYSIS PLAN CONFIRMATION OF CLEANUP																														
CONTAINMENT/SKIMMING OPERATIONS																														
SITE MANAGEMENT																														

KOPPERS INDUSTRIES, INC.
3900 S. LARAMIE AVENUE
CICERO, IL 60650

TELEPHONE: (708) 656-5900
FAX: (708) 656-6079

Date: 12-16-95	**HAPPY HOLIDAYS !!!**

Company Name:	USEPA
Contact Name:	Len Zintak
Location:	Chicago
Fax Number:	312 - 353 - 9176

Sender:	Mark Cilley
Message:	Bi Weekly Progress Report

Number of pages (including cover sheet):	36

If there are any problems with this transmission, please call the sender immediately at (708) 656-5900

Merry Christmas

8

WILDMAN, HARROLD, ALLEN & DIXON
225 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606-1229
(312) 201-2000
FAX: (312) 201-2555

JAMES R. MORRIN
(312) 201-2564

December 15, 1995

Jeffrey M. Cox, Esq.
Assistant Regional Counsel
Multi-Media Branch
Section 1
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604

RE: Koppers Industries, Inc.
Cicero, Illinois, Coal Tar Spill
Request for Extension on Information Request

Dear Jeff:

This will confirm that on Friday, December 15, 1995, the Agency granted Koppers's request for an extension of time in which to respond to the Section 308 information act request issued last November. The Agency has granted an extension through December 28, 1995.

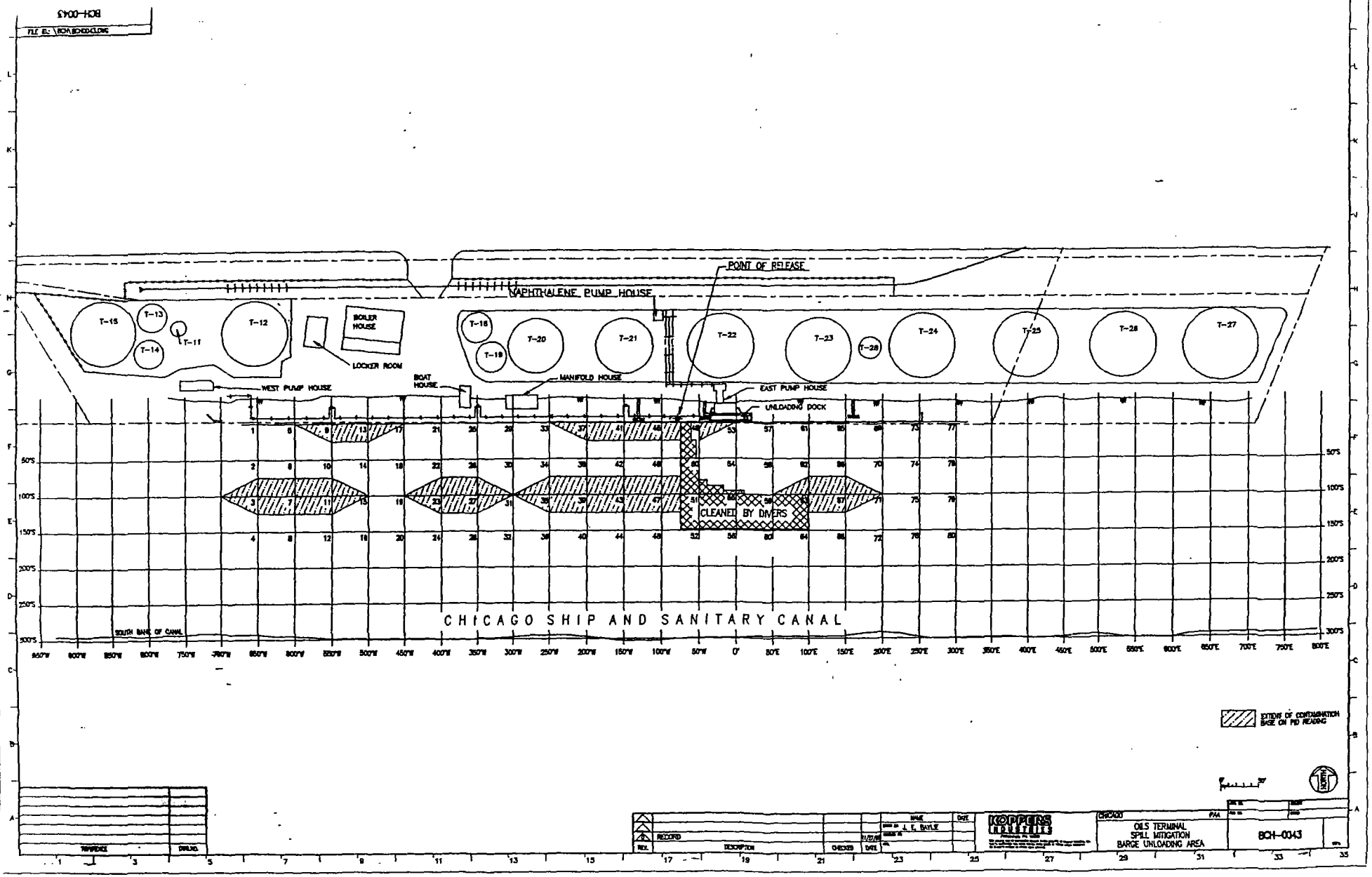
Thank you for your cooperation in this matter.

Sincerely yours,

James R. Morrin

JRM:dmn

cc: Koppers Industries, Inc



BCH-0043
POINT OF RELEASE
NAPHTHALENE PUMP HOUSE
T-15
T-13
T-14
T-11
T-12
BOILER HOUSE
LOCKER ROOM
T-16
T-19
T-20
T-21
T-22
T-23
T-28
T-24
T-25
T-26
T-27
WEST PUMP HOUSE
BOAT HOUSE
MANIFOLD HOUSE
EAST PUMP HOUSE
UNLOADING DOCK
CLEANED BY DIVERS
CHICAGO SHIP AND SANITARY CANAL
SOUTH BANK OF CANAL
EXTENT OF CONTAMINATION BASE ON PID READING
NORTH
REFERENCE
DWG.NO.
REV.
DESCRIPTION
CHECKED
DATE
NAME
J. E. BAYLE
KOPPERS INDUSTRIES
CHICAGO
OILS TERMINAL
SPILL MITIGATION
BARGE UNLOADING AREA
BCH-0043

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

December 28, 1995

VIA FEDERAL EXPRESS
Jeffrey M. Cox, Esq.
Assistant Regional Counsel
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: Koppers Industries, Inc. - Stickney Terminal Tar Spill
Response to Information Request

Dear Mr. Cox:

On behalf of Koppers Industries, Inc. (Koppers), we are filing this response to the Agency's November 20, 1995 Request For Information, issued in connection with the spill of coal tar which occurred at the Koppers Stickney Terminal on September 8, 1995.

In several instances the information requested by the Agency has already been furnished in the form of a work plan, a site safety plan or the like. In other cases, the information is contained in other documents. In such cases, Koppers has responded by referencing the submitted document or has attached the relevant document as part of its response.

Response To Information Request

1. **Describe, in detail, the discharge which occurred on or about September 8, 1995, from the facility and the response to the discharge, including, but not limited to, the duration and amount of coal tar released, possible causes of the discharge, a description of the area affected and the nature of any resulting damage, evacuation procedures employed (if any), a complete description of response efforts, and a description of the treatment and disposal methods employed for all wastes resulting from the spill and/or cleanup.**

RESPONSE: Description and Possible Cause. On September 8, 1995, at approximately 8 p.m., a routine transfer operation had just been completed at the Koppers Stickney Terminal. The Stickney Terminal is owned by the Metropolitan Water Reclamation District, and the better portion of the terminal is under lease to Koppers. The Stickney Terminal is used as a bulk loading/unloading facility, and is located on the banks of the Chicago Sanitary & Ship Canal in Stickney, Illinois.

The transfer operation being conducted on September 8 involved the transfer of crude coal tar from Terminal Tank No. 14 to Plant Tank No. 6. After such operations, the pipes used for the transfer must be purged of tar residue, and medium-pressure steam is used for this purpose. In this case, the transfer pipe consisted of two "legs," one from Tank No. 6 to the pump house, and the other from the pump house to Tank No. 14. After this transfer was completed, the pipe line used in the transfer was isolated at the center (the east pump house), and steam was then introduced at this end in order to purge residual tar from the section of transfer pipe between the pump house and Tank No. 6. When this purge of material was completed, the terminal operator began purging the remaining section of the transfer line between the pump house and Tank No. 14. Tank No. 14 is located at the west end of the terminal tank farm. The purging operation involved the introduction of 150 psig steam into the pipe.

While purging the second leg of the transfer line, the operator noticed that coal tar was escaping from an eight-inch pipe tee about fifty feet west of the pump house. This pipe tee had, at one time, been connected to another branch line off the transfer line, but approximately 6 years (during 1989) earlier, the branch line had been disconnected and the open tee sealed with a steel plate (5/16" thickness) welded into the opening in the pipe tee. Koppers is still investigating the cause of the failure of this welded plate. The transfer line, including the plate, had recently been subjected to annual Coast Guard pressure testing, and had passed. The transfer line runs horizontal and parallel to the canal with expansion loops that are angled to the contour of the bank. There are three loops of this type between the tee and the pipe that runs up the hill to the west pump house.

Koppers has been unable to determine the precise time during which coal tar leaked from the pipe tee; it only knows that the leak commenced sometime after the transfer operation was completed but before the secondary-leg purging operation was completed. Accordingly, it calculated the quantity of released coal tar based on the *maximum possible* release time of thirty minutes, which was the duration of the purge operation on the second leg. Based on this worst-case assumption, and utilizing the factor set for clean pipe set forth in *Cameron's Hydraulic Data*, it is estimated that 16,524 gallons of material could have escaped from the pipe *if* the pipe leaked during the

entire 30-minute purge operation.[1] The calculations supporting this estimate were previously supplied to the Agency in the Koppers Bi-weekly report to Mr. Zintak dated November 22, 1995.

Areas Affected - Land. Koppers has previously supplied the Agency with numerous maps depicting the areas affected by the spill. See e.g., Koppers Work Plan, Attachment A (Action Plan), Exhibit 2. A copy of Exhibit 2 is attached hereto as Enclosure 1 (Map). The Map indicates the point of release from the pipe tee. The released coal tar first formed a pool along the bank of approximately 10 feet by 30 feet. As the level of this pool rose, the material overflowed the banks of the Canal, which are lined with steel sheet piling. In some locations, the sheet piling has holes drilled at its upper edge — these holes acted as drains through which the coal tar flowed into the Canal.

Areas Affected - Canal. Koppers has previously supplied the Agency with several maps which depict Koppers' estimates of the areas of the Canal bottom which were affected by the release. See, Koppers Work Plan, Appendix E, Attachment A.

Property Damage. Land-side property damage was minimal. The area on the banks of the Canal onto which coal tar was released was compacted dirt. Because of the high viscosity of coal tar, the tar coated the ground surface, but did not penetrate the ground. Land-side cleanup consisted of excavation and removal of impacted soils, and excavation and disposal of approximately 55 cubic yards of soil, which included the excavation of three well sumps to monitor for product levels in the groundwater adjacent to the canal. The approximate measurements of the excavated soil in the pooling area (which coincided with the three well sumps) was 50 feet long by 15 feet wide and a depth of 1 foot with 3 well sumps of which two were 5-6 feet in diameter and 7 feet deep and one well was 5-6 feet in diameter and 10 feet deep. Damage to the Chicago Sanitary and Ship Canal consisted primarily of the deposition of coal tar along the canal bottom at locations which are still being determined. There were also secondary impacts in the form of a visible sheen that resulted from the lighter fractions of the spilled material, but the spread of surface

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Because a factor for clean pipe was used when in fact the actual pipe was not "clean" the actual release number must be less than this number.

contamination was kept to a minimum through the use of absorbent booms, which have remained in place since the spill date. Koppers does not believe that the spill caused any harm to wildlife, because coal tar is largely insoluble in water and because of the highly industrialized nature of the surrounding vicinity.

Evacuation/Road-closing. No evacuation of personnel was necessitated by the spill, nor were any roads or access-ways closed.

Response Efforts. To date, Koppers has submitted to the Agency materials totaling several hundred pages which detail the response efforts. This information is contained in the Koppers Work and Safety Plans submitted on October 17, 1995 (with attachments) as updated in the bi-weekly progress reports which Koppers submitted on November 3, November 22, and December 1, 1995. All of these materials were submitted to Mr. Leonard N. Zintak, Jr., the Agency's On-Scene Coordinator for the spill. The land-based remediation is detailed above. The materials previously submitted describe in detail Koppers' Diver Assisted Dredging (DAD) efforts as well as the dredging method which is currently being employed, which consists of the use of an "IMS" dredge. The IMS dredge is a more automated means of dredging, and it deploys a dredge boom from a floating barge on the surface rather than by manual operation through a diver standing on the canal bottom. This newer method, initiated in mid-November 1995, has proven far more efficient and cost-effective than the DAD method.

Response Costs. To date, Koppers has spent approximately $ 1.9 million in response costs. Enclosure 2 contains a line-item listing of costs incurred in connection with the project through December 1. 1995.[2]

Disposal Methods. Wastes resulting from the cleanup have come from two sources: Land cleanup and canal-based cleanup operations. The land cleanup of the canal-bank areas generated soils which were contaminated with coal tar. These soil materials were loaded on trucks and disposed of as Illinois Special Waste, through Waste Systems and County Environmental of Livingston Landfill in Pontiac, Illinois (Livingston Landfill).

Canal-based operations, in turn, generate three types of waste: Waste resulting from disposable personal protective equipment, rags and debris, contaminated absorbent boom materials used to trap surface contamination, and coal tar contaminated wastewater removed through dredging operations. Washwater from decontamination operations are wasted to the Koppers wastewater

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The Enclosure reflects only amounts actually processed through December 1. The actual amount incurred through December 14, 1995 is somewhat higher.

treatment system, described below. The miscellaneous solid waste materials are disposed of as special waste at the Livingston Landfill as contaminated refuse.

Dredged wastewater is first pumped into a pair of API separators operating in parallel. The effluent from the separators is pumped into the Koppers Wastewater Treatment Plant for regular treatment, but after treatment the effluent is pumped through two Calgon carbon absorption units before being discharged into the Canal.[3]

2. **Estimate the total amount of coal tar discharged from the facility on or about September 8, 1995. Provide the basis of any calculation made to determine the amount of coal tar discharged.**

RESPONSE: See Koppers' response to question 1 above.

3. **State any authority that was given to Koppers that allowed the discharge of coal tar into the Chicago Sanitary and Ship Canal or any other types of permits issued to Koppers subsequent to the discharge.**

RESPONSE: Koppers received written authority to discharge treated wastewater directly into the Chicago Sanitary and Ship Canal from the Agency verbally from Mr. Leonard Zintak, On-Scene Coordinator, on or about October 7, 1995. This authority was confirmed in writing by Mr. Zintak by letter dated October 13, 1995. See Attachment C to the Koppers Work Plan.

The discharge of treated wastewater authorized by the Agency is further subject to interim and temporary effluent limitations prescribed by the Illinois Environmental Protection Agency. These limitations were originally issued by IEPA to Koppers by facsimile on October 5, 1995, and later confirmed in a letter dated October 23, 1995 letter from Thomas G. McSwiggin, Manager, Permit Section, Division of Water Pollution Control. See, Attachment B to the Koppers Work Plan.

In addition to the foregoing, Koppers found it necessary to cross a roadway owned by the Chicago Metropolitan Water Reclamation District (MWRD) in order to construct a discharge line from its treatment plant to the Canal. In order to construct the discharge line under the MWRD roadway, Koppers obtained a General Permit from the MWRD dated October 9, 1995. A copy of the Permit is attached as Enclosure 3.

Wastewater Treatment Plant operations, including the carbon unit operations, are more fully described in Attachment D to the Koppers Work Plan. See also, Appendix B, Attachment 6 to the Koppers Site Safety Plan.

4. **Submit copies of all sampling data of samples taken from the area surrounding the discharge, along with any other type of sampling done related to the discharge.**

RESPONSE: Copies of all requested data have already been furnished to Mr. Leonard Zintak, the Agency's On-Scene Coordinator, as part of the Work Plan and the bi-weekly progress reports.

5. **Submit copies of all reports, studies, field notes and diving logs and notes, if any, regarding the discharge, the response efforts, damage assessment, and any other event or result related to the discharge beginning on or about September 8, 1995.**

RESPONSE: Included with this response as Enclosure 4 are copies of those requested materials which have not already been furnished to the Agency as part of the Work Plan and the bi-weekly progress reports.

6. **Submit all copies of correspondence with the Illinois Environmental Protection Agency since September 8, 1995, that involve the discharge, the response, and any other discharge-related event.**

RESPONSE: Copies of all correspondence between Koppers and the IEPA are attached hereto as Enclosure 5.

7. **Submit a detailed map of the area of the discharge. Show the extent of the discharge, the areas that were evacuated, the roads that were closed, and any other pertinent details.**

RESPONSE: See Response to question 1 above. See Enclosure 1. Also included as Enclosure 6 is a map reflecting Koppers' estimate of the locations of coal tar on the bottom of the canal, prior to the commencement of dredging operations.

8. **If any current monitoring of the discharge area(s) exists, explain the type of monitoring and submit any reports or results. Do not include reports and data already submitted pursuant to this information request.**

RESPONSE: All information requested has been previously submitted as set forth above.

9. **For any discharge of any oil or hazardous substance, including coal tar, that has occurred since 1984, please provide the information requested in questions 1 through 8 above, indicating the date of the discharge and type and quantity of the oil or hazardous substance discharged.**

RESPONSE: Koppers objects to this request to the extent that it seeks information prior to December 29, 1988, the date on which the newly formed Koppers Industries, Inc. acquired the equipment at the Stickney Terminal from the Koppers Company.[4] Since December 29, 1988 there has been only the following discharge of coal tar, oil, or hazardous substance from the Stickney Terminal into the Chicago Sanitary and Ship Canal:

Date	Quantity (gal)	Remarks
6/11/92	2-5	Carbon black oil (60 gals), released onto ground due to expansion joint failure in transfer line. Only 2-5 gallons reached Canal. Absorbent booms placed between dock and barge to contain and absorb material. Vacuum truck used to remove remaining oil drops from water surface. The failed expansion joint was removed and replaced with an improved expansion loop of hard-piped carbon steel.

KOPPERS INDUSTRIES, INC.

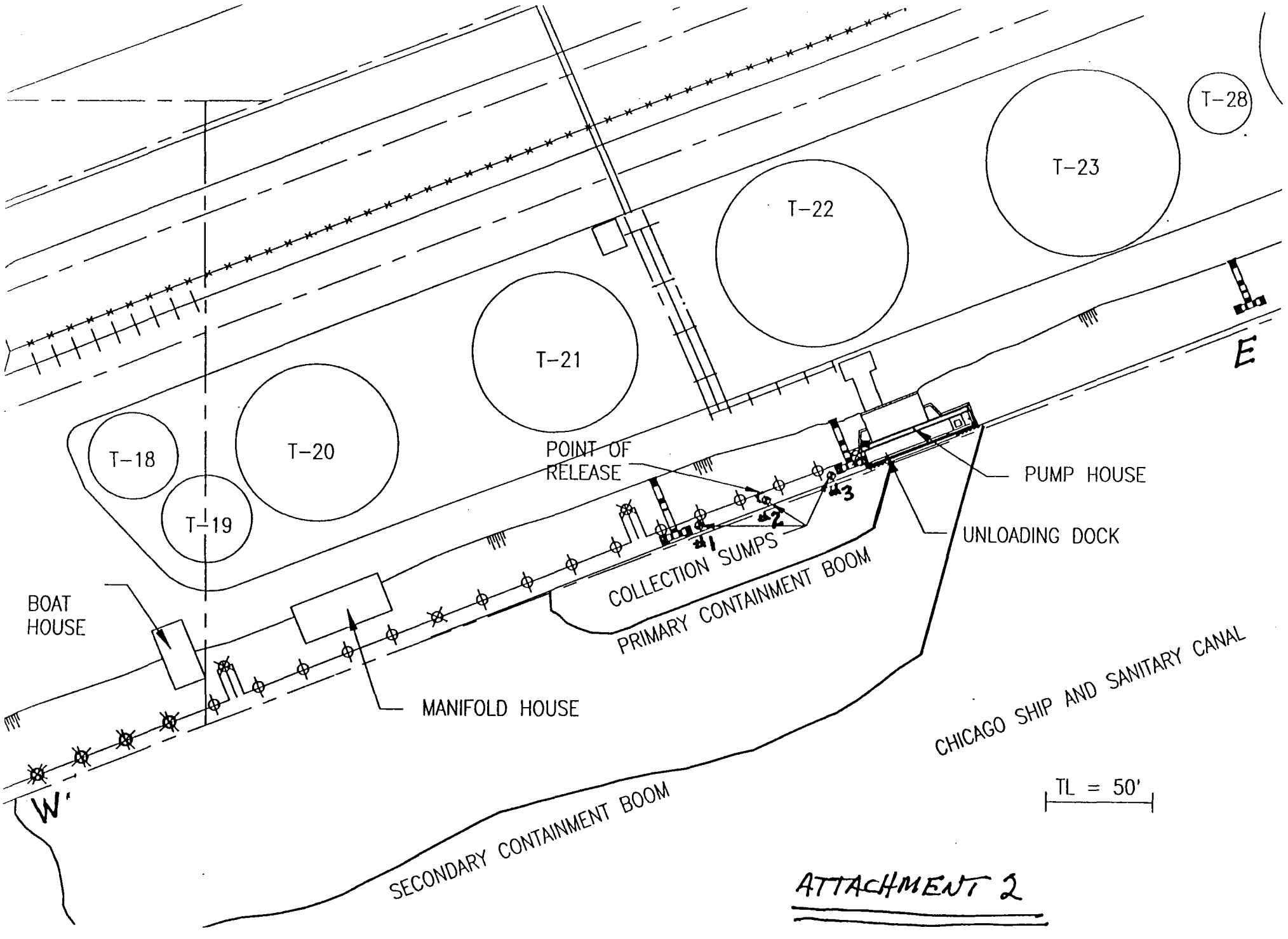
By: Mark A. Cilley

Mark A. Cilley
Env., Health and
Safety Manager

Koppers Industries, Inc. had no relationship with the seller, the Koppers Company.

cc: G.Trent III
W. Swearingen K-1801
J. Morrin Esq.

ENCLOSURE #1



ATTACHMENT 2

Jeffrey M. Cox, Esq.
November 10, 1995

ENCLOSURE #2

Koppers Industries Inc.
TAR OPERATIONS
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(Version)	G/L	Loc	Det	S-Det	Dept	Emp	Doc	JV#
	1322	60	All	All	25	All	All	All

G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		33	ACCOUNT # CORRECTIONS	0	0	1,765	0	0	0	1,765
1322	60			25		33	ACCOUNT # CORRECTIONS	0	0	7,518	0	0	0	7,518
1322	60			25		32	BEAR COMMUNICATIONS IN	0	0	0	0	2,499	0	2,499
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	3,644	0	3,644
1322	60			25		32	CALGON CARBON CORP	0	0	0	0	0	64,385	64,385
1322	60			25		32	CALGON CARBON CORP	0	0	0	23,808	0	0	23,808
1322	60			25		32	CALGON CARBON CORP	0	0	0	30,264	0	0	30,264
1322	60			25		32	COUNTY ENVIRONMENTAL	0	0	0	0	0	365	365
1322	60			25		32	COUNTY ENVIRONMENTAL	0	0	0	730	0	0	730
1322	60			25		32	DREISILKER ELECTRIC MO	0	0	0	0	0	667	667
1322	60			25		32	DREISILKER ELECTRIC MO	0	0	0	0	0	589	589
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	0	0	282,140	282,140
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	107,813	0	0	107,813
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	0	138,427	0	138,427
1322	60			25		32	ENVIRONMENTAL & MARINE	0	0	0	114,479	0	0	114,479
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	1,890	0	0	1,890
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	13,939	0	0	13,939
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	9,765	0	9,765
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	8,795	0	8,795
	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	4,884	0	4,884
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	208	0	208
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	8,256	0	8,256
1322	60			25		32	ENVIRONMENTAL MONITORI	0	0	0	0	5,692	0	5,692
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	501	0	501
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	2,665	0	2,665
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	2,664	0	2,664
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	3,606	0	3,606
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	5,559	5,559
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	900	900
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	4,623	0	4,623
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	2,361	0	2,361
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	3,979	0	3,979
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	4,146	0	4,146
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	1,434	0	1,434
1322	60			25		32	F G ENTERPRISES INC	0	0	0	3,932	0	0	3,932
1322	60			25		32	F G ENTERPRISES INC	0	0	0	5,536	0	0	5,536
1322	60			25		32	F G ENTERPRISES INC	0	0	0	329	0	0	329
1322	60			25		32	F G ENTERPRISES INC	0	0	0	1,002	0	0	1,002
1322	60			25		32	F G ENTERPRISES INC	0	0	0	1,818	0	0	1,818
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,058	0	0	2,058
1322	60			25		32	F G ENTERPRISES INC	0	0	0	3,421	0	0	3,421

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G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		32	F G ENTERPRISES INC	0	0	0	1,504	0	0	1,504
1322	60			25		32	F G ENTERPRISES INC	0	0	0	1,062	0	0	1,062
1322	60			25		32	F G ENTERPRISES INC	0	0	0	3,040	0	0	3,040
1322	60			25		32	F G ENTERPRISES INC	0	0	0	354	0	0	354
1322	60			25		32	F G ENTERPRISES INC	0	0	0	392	0	0	392
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,030	0	0	4,030
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,440	0	0	2,440
1322	60			25		32	F G ENTERPRISES INC	0	0	0	329	0	0	329
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,400	0	0	4,400
1322	60			25		32	F G ENTERPRISES INC	0	0	0	3,390	0	0	3,390
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,596	0	0	4,596
1322	60			25		32	F G ENTERPRISES INC	0	0	0	7,007	0	0	7,007
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,212	0	0	4,212
1322	60			25		32	F G ENTERPRISES INC	0	0	0	5,210	0	0	5,210
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,606	0	0	4,606
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,298	0	0	4,298
1322	60			25		32	F G ENTERPRISES INC	0	0	0	1,716	0	0	1,716
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,982	0	0	2,982
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,658	0	0	4,658
22	60			25		32	F G ENTERPRISES INC	0	0	0	996	0	0	996
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,602	0	0	4,602
1322	60			25		32	F G ENTERPRISES INC	0	0	0	329	0	0	329
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,940	0	0	2,940
1322	60			25		32	F G ENTERPRISES INC	0	0	0	0	0	5,874	5,874
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,349	0	0	2,349
1322	60			25		32	F G ENTERPRISES INC	0	0	0	5,924	0	0	5,924
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,472	0	0	4,472
1322	60			25		32	F G ENTERPRISES INC	0	0	0	2,870	0	0	2,870
1322	60			25		32	F G ENTERPRISES INC	0	0	0	329	0	0	329
1322	60			25		32	F G ENTERPRISES INC	0	0	0	3,874	0	0	3,874
1322	60			25		32	F G ENTERPRISES INC	0	0	0	10,329	0	0	10,329
1322	60			25		32	F G ENTERPRISES INC	0	0	0	4,266	0	0	4,266
1322	60			25		32	F G ENTERPRISES INC	0	0	0	8,538	0	0	8,538
1322	60			25		32	GILCO SCAFFOLDING CO	0	0	0	0	562	0	562
1322	60			25		32	HERITAGE	0	0	0	0	133,794	0	133,794
1322	60			25		32	HERITAGE	0	0	0	160,512	0	0	160,512
1322	60			25		32	HERITAGE	0	0	0	108,281	0	0	108,281
1322	60			25		32	HERITAGE	0	0	0	0	0	66,576	66,576
1322	60			25		32	HERITAGE	0	0	0	0	0	56,777	56,777
1322	60			25		32	HERITAGE	0	0	0	0	0	155,149	155,149
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	754	754

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G/L	Loc	Det	S-Det	Dept	Emp	Doc	Vendor/Comments/User	Jul Amounts	Aug Amounts	Sep Amounts	Oct Amounts	Nov Amounts	Dec Amounts	Current Y-T-D
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	149	149
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	582	582
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	860	860
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	145	145
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	72	72
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	690	690
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	559	559
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	372	372
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	0	561	561
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	743	0	0	743
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	753	0	0	753
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	1,012	0	0	1,012
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	784	0	0	784
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	710	0	0	710
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	732	0	0	732
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	898	0	0	898
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	752	0	0	752
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	732	0	0	732
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	283	0	0	283
2	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	793	0	0	793
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	723	0	0	723
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	753	0	0	753
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	765	0	0	765
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	768	0	768
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	775	0	775
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	880	0	880
1322	60			25		32	HOLIDAY INN LAGRANGE C	0	0	0	0	904	0	904
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	695	0	695
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	0	444	444
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	131	0	131
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	30	0	0	30
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	0	341	0	341
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	984	0	0	984
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	4,465	0	0	0	4,465
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	238	0	0	238
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	255	0	0	255
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	1,035	0	0	1,035
1322	60			25		32	INDUSTRIAL SERVICE PRO	0	0	0	1,357	0	0	1,357
1322	60			25		32	J B BRENNY & ASSOC	0	0	0	0	32	0	32
1322	60			25		32	J B BRENNY & ASSOC	0	0	0	0	27	0	27
1322	60			25		32	JOILET VALVES INC	0	0	0	0	109	0	109

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1322	60			25		32	JOILET VALVES INC	0	0	0	0	867	0	867
1322	60			25		32	JOILET VALVES INC	0	0	0	0	307	0	307
1322	60			25		32	JOILET VALVES INC	0	0	0	0	10	0	10
1322	60			25		32	JOILET VALVES INC	0	0	0	0	28	0	28
1322	60			25		32	JOILET VALVES INC	0	0	0	0	305	0	305
1322	60			25		32	JOILET VALVES INC	0	0	0	0	102	0	102
1322	60			25		32	JOILET VALVES INC	0	0	0	0	42	0	42
1322	60			25		32	JOILET VALVES INC	0	0	0	0	0	68	68
1322	60			25		32	JOLIET VALVES INC	0	0	0	0	333	0	333
1322	60			25		32	JOLIET VALVES INC	0	0	0	69	0	0	69
1322	60			25		32	JOLIET VALVES INC	0	0	0	30	0	0	30
1322	60			25		32	JOLIET VALVES INC	0	0	0	1,408	0	0	1,408
1322	60			25		32	JOLIET VALVES INC	0	0	0	108	0	0	108
1322	60			25		32	JOLIET VALVES INC	0	0	35	0	0	0	35
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	23,710	0	0	23,710
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	440	0	0	440
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	2,400	0	0	2,400
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	4,450	0	0	4,450
1322	60			25		32	LA GRANGE CRANE SERVIC	0	0	0	0	440	0	440
[illegible]	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	6,000	6,000
[illegible]	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	4,882	0	4,882
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	300	0	0	300
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	3,478	3,478
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	3,812	3,812
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	2,512	2,512
1322	60			25		32	LAKES & RIVERS CONTRAC	0	0	0	0	0	6,105	6,105
1322	60			25		32	MACK PUMP & EQUIPMENT	0	0	0	0	0	1,634	1,634
1322	60			25		32	MACK PUMP & EQUIPMENT	0	0	0	0	1,008	0	1,008
1322	60			25		32	MCJUNKIN CORP	0	0	0	61	0	0	61
1322	60			25		32	MCMASTER-CARR SUPPLY C	0	0	0	1,443	0	0	1,443
1322	60			25		32	MCMASTER-CARR SUPPLY C	0	0	0	46	0	0	46
1322	60			25		32	MCMASTER-CARR SUPPLY C	0	0	0	370	0	0	370
1322	60			25		32	MCMASTER-CARR SUPPLY C	0	0	0	416	0	0	416
1322	60			25		32	MILLTRONICS INC	0	0	0	2,212	0	0	2,212
1322	60			25		32	MOORE PRODUCTS CO	0	0	0	390	0	0	390
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	0	80	80
1322	60			25		32	PATTEN POWER SYSTEMS	0	0	0	0	4,800	0	4,800
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	0	7	0	7
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	0	316	0	316
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	31	0	0	31
1322	60			25		32	PORTABLE TOOL SALES &	0	0	0	1,606	0	0	1,606

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1322	60			25		32	PORTABLE TOOL SALES &	0	0	1,002	0	0	0	1,002
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	8,623	0	0	8,623
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	1,704	0	0	1,704
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	287	0	0	287
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	44	0	0	44
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	4,173	0	0	4,173
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	6,295	0	6,295
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	4,720	0	4,720
1322	60			25		32	SCHECK MECHANICAL CORP	0	0	0	0	936	0	936
1322	60			25		32	SURE-SEAL INC	0	0	0	0	1,066	0	1,066
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	5,585	0	5,585
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	0	12,374	0	12,374
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	11,435	0	0	11,435
1322	60			25		55	TAR HOURLY PAYROLL	0	0	0	27,531	0	0	27,531
1322	60			25		55	TAR HOURLY PAYROLL	0	0	6,371	0	0	0	6,371
1322	60			25		55	TAR HOURLY PAYROLL	0	0	16,530	0	0	0	16,530
1322	60			25		32	W W GRAINGER INC	0	0	0	0	0	87	87
1322	60			25		32	W W GRAINGER INC	0	0	0	100	0	0	100
1322	60			25		32	W W GRAINGER INC	0	0	0	1,070	0	0	1,070
22	60			25		32	W W GRAINGER INC	0	0	0	26	0	0	26
1322	60			25		32	W W GRAINGER INC	0	0	0	301	0	0	301
1322	60			25		32	W W GRAINGER INC	0	0	0	52	0	0	52
1322	60			25		32	W W GRAINGER INC	0	0	0	6	0	0	6
1322	60			25		32	W W GRAINGER INC	0	0	0	0	1,002	0	1,002
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	4	0	4
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	145	0	145
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	287	0	287
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	145	0	145
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	287	0	287
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	0	4	0	4
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	287	0	0	287
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	287	0	0	287
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	283	0	0	283
1322	60			25		32	WELDING INDUSTRIAL SUP	0	0	0	1,409	0	0	1,409
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	0	400	400
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	35	0	0	35
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	180	0	0	180
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	239	0	239
1322	60			25		32	WIRTZ RENTALS CO	0	0	0	0	171	0	171
TOTAL LOCATION (0060) STICKNEY INDUSTRIAL								0	0	37,686	803,511	393,874	668,345	1,903,416
TOTAL REPORT								0	0	37,686	803,511	393,874	668,345	1,903,416

ENCLOSURE #3

Protecting Our Water Environment

Metropolitan Water Reclamation District of Greater Chicago
100 EAST ERIE STREET CHICAGO, ILLINOIS 60611-2803 312 / 751-5600

BOARD OF COMMISSIONERS
Thomas S. Fuller
President
Kathleen Therese Meany
Vice President
Gloria Alitto Majewski
Chairman of Finance
Frank E. Gardner
Joseph E. Gardner
Terrence J. O'Brien
Nancy Drew Sheehan
Patricia Young
Harry "Bus" Yourell

F

Michael Rosenberg
Attorney
312 / 751-6565

October 13, 1995

Mr. James R. Morrin, Esq.
Wildman, Harrold, Allen & Dixon
225 West Wacker Drive
Chicago, Illinois 60606-1229

Re: Permit to Koppers Industries, Inc., to Install, OPerate and Remove a Temporary Effluent Discharge Line Under "Edmier" Road

Dear Jim:

This letter will confirm receipt of the original executed signature page and the original acknowledgement page, both signed in behalf of your client and your firm's check No. 179513, payable to the District in the amount of $750.00, constituting payment of the permit fee in connection with the captioned transaction. We also received today, by UPS Air, the original executed Restoration Performance Bond and Financial Guarantee Bond, copies of which were previously faxed to me.

Except for receipt of the original certificate of insurance, receipt of the foregoing documents completes the documentary aspect of this transaction. Because of the emergency nature of this matter, the permit was issued by Mr. Hugh H. McMillan, General Superintendent of the District. Transactions of this type normally require the authority of the District's Board of Commissioners. We will petition the Board of Commissioners for ratification of the General Superintendent's act at its next regular meeting on October 19, 1995. We anticipate no difficulty in that regard.

Finally, I am enclosing for your records one fully executed copy of the subject two-month permit agreement. I will advise when I receive the certificate of insurance and will also advise when formal ratification of the General Superintendent's act has been effected.

Very truly yours,

Frederick M. Feldman
Head Assistant Attorney

FMF:smd
Enclosure
/0366

RECYCLED PAPER

Koppers

FMF:lmw 10/9/95 Revised 2/24/94

GENERAL PERMIT

THIS PERMIT made this 9th day of October, 1995, by and between THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO, a municipal corporation, organized and existing under the laws of the State of Illinois hereinafter called "District," and KOPPERS INDUSTRIES, INC. a corporation organized and existing under the laws of the State of Pennsylvania hereinafter called "Permittee."

ARTICLE ONE

1.01 The District for and in consideration of the payment of the permit fees hereinafter set forth, hereby issues to the Permittee a permit and license to use the following described real estate situated in the County of Cook, State of Illinois for the sole and exclusive purpose of constructing, installing, operating and removing a 4" diameter PVC effluent discharge pipe and protective steel pipe sheath across the District's private roadway, commonly known as "Edmier" Road at a point 200 feet east ± of Laramie Avenue, in Stickney, Illinois, in a trench approximately 8 inches wide and at a depth approximately 6 inches below the asphalt pavement.

1.02 This Permit shall be effective from the 9th day of October, 1995 to the 8th day of December, 1995, at which time Permittee shall vacate said premises and remove Permittee's effects therefrom at Permittee's cost, unless said Permit shall be terminated sooner by virtue of the provisions hereinafter provided.

ARTICLE TWO

2.01 Permittee hereby agrees that in consideration for the granting of this Permit, Permittee shall pay to the District the sum of SEVEN HUNDRED AND FIFTY AND NO/100 DOLLARS ($750.00) payable in a single sum upon execution of this Permit.

2.02 In addition thereto, Permittee shall pay on or before the due date thereof, all real estate taxes, special assessments and all other taxes, assessments and charges which may be levied against the property or the District by any governmental authority empowered to do so, on account of Permittee's use of the Permit Premises.

2.03 Permittee will during all times of construction, operation, maintenance or removal of the permitted effluent discharge pipe, not interrupt pedestrian and vehicular passage over the "Edmier"Road.

ARTICLE THREE

3.01 Permittee agrees and specifically understands that this Permit is confined solely to the non-exclusive privilege to Permittee to use the premises set forth in Article One, and no other; that the authority and permission herein given does not thereby grant unto Permittee any interest or estate in the said lands of the District and that the District retains dominion, possession and control of said lands, including access thereto at all times.

3.02 Permittee further agrees and specifically understands that the District shall have the right to enter upon the premises herein described for the purpose of making such surveys, soil borings or other purposes as may be deemed necessary by the District in the furtherance of its corporate purpose.

3.03 The District shall not be liable for any loss, cost or damage to the Permittee by reason of the exercise of the right to make such surveys, soil borings or other purposes as may be deemed necessary by the District in the furtherance of its corporate purpose.

ARTICLE FOUR

4.01 The District hereby reserves the right to terminate this Permit upon giving thirty (30) days notice, in writing, of such termination to Permittee and thereupon Permittee shall vacate said premises and remove its effects therefrom, and restore the premises to the condition existing prior to Permittee's entry thereon, at Permittee's cost.

4.02 In the event Permittee uses or allows the premises to be used for any illegal or immoral purposes, or for any purpose other than that hereinabove specifically provided, or violates any of the provisions hereof, this Permit may be terminated by the District upon giving three (3) days notice, in writing, to Permittee, and thereupon Permittee shall forthwith vacate said premises and remove Permittee's effects therefrom, and restore the premises to the condition existing prior to Permittee's entry thereon, at Permittee's cost.

4.03 The District shall not be liable to Permittee for any loss, cost or damage incurred by the Permittee by reason of the exercise of the right of the District to cancel this Permit.

ARTICLE FIVE

5.01 The Permittee shall be solely responsible for and shall defend, indemnify, keep and save harmless the District, its Commissioners, officers, agents and employees, against all injuries, deaths, losses, damages, claims, patent claims, liens, suits, liabilities, judgments, costs and expenses which may in any wise accrue, directly or indirectly, against the District, its

Commissioners, officers, agents or employees, in consequence of the granting of this Permit, or which may in anywise result therefrom or from any work done hereunder, whether or not it shall be alleged or determined that the act was caused through negligence or omission of the Permittee, or Permittee's employees, or of any contractor or subcontractor, or their employees, if any, and the Permittee shall, at Permittee's sole expense appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and if any judgment shall be rendered against the District, its Commissioners, officers, agents or employees, in any such action the Permittee shall, at the Permittee's sole expense, satisfy and discharge the same.

5.02 (a) The Permittee, prior to entering upon said premises and using the same for the purposes for which this Permit is issued, shall procure, maintain and keep in force, at Permittee's or Permittee's contractors expense, public liability and property damage insurance in which the District, its Commissioners, officers, agents and employees, are a named insured as well as fire and extended coverage, and all-risk property insurance in which the District is named loss payee from a company to be approved by the District, each afore-referenced policy shall have limits of not less than ("CLAIMS MADE" policies are unacceptable):

COMPREHENSIVE GENERAL LIABILITY
Combined Single Limit Bodily Injury Liability
Property Damage Liability (Including Liability for Environmental Contamination of Adjacent Properties)
in the amount of not less than $4,000,000.00
per Occurrence
and
ALL RISK PROPERTY INSURANCE
(Including Coverage for Environmental Contamination of Permit Premises)
in the amount of not less than $4,000,000.00
per Occurrence
INCLUDING
An Amount Not Less Than the
Replacement Cost of Improvements
Located on the Premises*

Prior to entering upon said Permit Premises, the Permittee shall furnish to the District certificates of such insurance or other suitable evidence that such insurance coverage has been procured and is maintained in full force and

*Strike where applicable.

effect. Upon District's written request, Permittee shall provide District with copies of the actual insurance policies within ten (10) days of District's request for same. Such certificates and insurance policies shall clearly identify the Permit Premises and shall provide that no change, modification in or cancellation of any insurance shall become effective until the expiration of thirty (30) days after written notice thereof shall have been given by the insurance company to the District. The provisions of this paragraph shall in no wise limit the liability of the Permittee as set forth in the provisions of 5.01 above, or

~~5.02 (b) Permittee prior to entering upon said premises and using the~~ same for the purposes for which this Permit is granted, shall prepare and transmit to the District an acknowledged statement that the Permittee is a self-insurer, and that it undertakes and promises to insure the District, its Commissioners, officers, agents, servants and employees on account of risks and liabilities contemplated by the indemnity provisions of paragraph 5.01 above; and that such statement is issued in lieu of policies of insurance or certificates of insurance in which the District, its Commissioners, officers, agents, servants and employees would be a named or additional insured, and that it has funds available to cover those liabilities in the respective amounts therefor, as set forth as follows:

COMPREHENSIVE GENERAL LIABILITY
Combined Single Limit Bodily Injury Liability
Property Damage Liability (Including Liability for Environmental
Contamination of Adjacent Properties)
in the amount of not less than $4,000,000.00
per Occurrence
and
ALL RISK PROPERTY INSURANCE
(Including Coverage for Environmental Contamination
of Permit Premises)
in the amount of not less than $4,000,000.00
per Occurrence
INCLUDING
An Amount Not Less Than the
Replacement Cost of Improvements
Located on the Premises*

This statement shall be signed by such officer or agent of the Permittee having sufficient knowledge of the fiscal structure and financial status of the Permittee to make such a statement on behalf of the Permittee and undertake to assume the financial risk on behalf of the Permittee and will be subject to the ~~approval of the District.~~

*Strike where applicable

5.03 The Permittee, prior to entering into possession, shall execute and lodge with the District, its indemnity bond in the sum of Five Thousand Dollars ($5,000.00), conditioned upon the performance of each and every condition of this Permit; such bond shall be in a form satisfactory to the Attorney for the District. The furnishing of the bond required in this Article shall in no wise limit or affect the liability of the Permittee or its insurance carrier under any other provision of this Permit.

5.04 Permittee expressly understands and agrees that any insurance protection or bond required by this Permit, or otherwise provided by Permittee, shall in no way limit the responsibility to defend, indemnify, keep and save harmless the District, as hereinabove provided.

ARTICLE SIX

6.01 It is further expressly understood that the District shall not be liable to the Permittee for any loss, cost, or expense which the Permittee shall sustain by reason of any damage to its property or business caused by or growing out of the construction, repair, reconstruction, maintenance, existence, operation, or failure of any of the sewers, structures, or other works or equipment of the District now located or to be constructed on said premises, or on the land of the District adjacent to said premises.

6.02 The Permittee also agrees that if the District incurs any additional expense for additional work which the District would not have had to incur if this Permit had not been executed, then, in that event, the Permittee agrees to pay to the District such additional expense as determined by the Chief Engineer of the District, promptly upon rendition of bills therefor to the Permittee.

ARTICLE SEVEN

7.01 It is understood and agreed by and between the parties hereto that the Permittee shall not erect any structure of any type or kind upon said premises except with the consent, in writing of the Chief Engineer first had and obtained.

7.02 The Permittee, prior to entering upon said premises and using the same for the purposes for which this Permit is granted, shall, at Permittee's sole cost and expense, obtain all permits, consents and licenses which may be required under any and all statutes, laws, ordinances and regulations of the District, the United States of America, the State of Illinois, the County, or the city, village, town or municipality in which the subject property is located, and furnish to the District suitable evidence thereof.

7.03 The Permittee covenants and agrees not to maintain any nuisance on the Permit premises which shall be in any manner injurious to the health and comfort of persons residing or being in the vicinity of said premises, and the Permittee further covenants and agrees to keep the Permit premises in a clean and sanitary condition.

7.04 The Permittee covenants and agrees that it shall strictly comply with any and all statutes, laws, ordinances and regulations of the District, the United States of America, the State of Illinois, the County and the city, village, town or municipality in which the subject property is located which in any manner affect this Permit, any work done hereunder or control or limit in any way the actions of Permittee, its agents, servants and employees, or of any contractor or subcontractor of Permittee, or their employees.

7.05 Permittee covenants and agrees that on or before the termination date of this Permit, Permittee shall remove or cause to be removed, any and all debris on the premises described in this Permit, and any and all equipment, facilities, or other things erected or placed upon said premises, and will yield up said premises to the District in as good condition as when the same was entered upon by Permittee. Upon Permittee's failure so to do, the District may do so at the sole expense and cost of Permittee.

ARTICLE EIGHT

8.01 Any notice herein provided to be given shall be deemed properly served if delivered in writing personally or mailed by registered or certified mail, postage prepaid, return receipt requested to the District in care of the General Superintendent, 100 East Erie Street, Chicago, Illinois 60611, or to the Permittee in care of:

Koppers Industries, Inc.
3900 South Laramie Avenue
Cicero, Illinois 60650

Attn: Mr. Mark Cilley
Environmental, Health and Safety manager

or such other persons or addresses as either party may from time to time designate in writing.

8.02 In the event that the Permittee hereinabove contemplated shall consist of two or more parties, each and every party shall be jointly and severally liable for the faithful and complete performance of each and every provision of this Permit.

8.03 Permittee expressly acknowledges that the District has made no representations, warranties, express or implied, as to the adequacy, fitness or condition of permit premises or the improvements upon the permit premises. Permittee accepts the permit premises and the improvements thereon, if any, 'AS-IS" and 'WITH ALL FAULTS". Permittee acknowledges that it has inspected the permit premises and has satisfied itself as to the adequacy, fitness and condition thereof.

8.04 Permittee agrees and specifically understands that the District shall not issue or execute this Permit and license, unless within 28 days of Permittee's receipt of this Permit Agreement, Permittee causes same to be duly executed and returned to the District with evidence of compliance with all terms contained herein.

8.05 This Permit Agreement shall be mutually cancelable by the Permittee upon Permittee's giving ninety (90) days notice in writing, of such cancellation to the District and thereupon Permittee shall vacate said premises and remove its effects therefrom, and restore the premises to the condition existing prior to Permittee's entry thereon, at Permittee's cost.

8.06 If the land is to be used for public use and recreation, Permittee shall, during the term of this Permit, at its sole cost and expense, construct,erect and maintain, at one or more prominent locations on the permit premises, tastefully designed and constructed permanent signs which acknowledge the cooperation and support of the District in connection with Permittee's use of the permit premises. The style, text and size of the sign(s) shall be approved in advance of erection thereof by the Chief of Maintenance and Operations of the District, and shall, at minimum state that:

"THIS FACILITY IS PROVIDED IN PART AS A COMMUNITY SERVICE WITH THE COOPERATION AND SUPPORT OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO".

ARTICLE NINE

GENERAL ENVIRONMENTAL PROVISIONS
9.01 DEFINITIONS

A. "Environmental Laws" shall mean all present and future statutes, regulations, rules, ordinances, codes, licenses, permits, orders, approvals,

plans, authorizations and similar items, of all government agencies, departments, commissions, boards, bureaus, or instrumentalities of the United States, state and political subdivisions thereof and all applicable judicial, administrative, and regulatory decrees, judgments, orders, notices or demands relating to industrial hygiene, and the protection of human health or safety from exposure to Hazardous Materials, or the protection of the environment in any respect, including without limitation:

(1) all requirements, including, without limitation, those pertaining to notification, warning, reporting, licensing, permitting, investigation, and remediation of the presence, creation, manufacture, processing, use, management, distribution, transportation, treatment, storage, disposal, handling, or release of Hazardous Materials;

(2) all requirements pertaining to the protection of employees or the public from exposure to Hazardous Materials or injuries or harm associated therewith; and

(3) the Comprehensive Environmental Response, Compensation and Liability Act (Superfund or CERCLA) (42 U.S.C. Sec. 9601 et seq.), the Resource Conservation and Recovery Act Act (Solid Waste Disposal Act or RCRA) (42 U.S.C. Sec. 6901 et seq.), Clean Air Act (42 U.S.C. Sec 7401 et seq.), the Federal Water Pollution Control Act (Clean Water Act) (33 U.S.C. Sec, 1251 et seq.), the Emergency Planning and Community Right-to-Know Act (42 U.S.C. Sec. 11001 et seq.), the Toxic Substances Control Act (15 U.S.C. Sec, 2601 et seq.), the National Environmental Policy Act (42 U.S.C. Sec. 4321 et seq.), the Rivers and Harbors Act of 1988 (33 U.S.C. Sec. 401 et seq.), the Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.), the Safe Drinking Water Act (42 U.S.C.Sec. 300 (f) et seq., the Illinois Environmental Protection Act (415 ILCS 5/1 et seq.) and all rules, regulations and guidance documents promulgated or published thereunder, Occupational Safety and Health Act (29 U.S.C. Sec. 651 et seq.) and all similar state, local and municipal laws relating to public health, safety or the environment.

B. "Hazardous Materials" shall mean:

(1) any and all asbestos, natural gas, synthetic gas, liquefied natural gas, gasoline, diesel fuel, petroleum, petroleum products, petroleum hydrocarbons, petroleum by-products, petroleum derivatives, crude oil and

any fraction of it, polychlorinated biphenyls (PCBs), trichloroethylene, ureaformaldehyde and radon gas;

(2) any substance (whether solid, liquid or gaseous in nature), the presence of which (without regard to action level, concentration or quantity threshold requires investigation or remediation under any federal, state or local statute, regulation, ordinance, order, action, policy or common law;

(3) any substance (whether solid, liquid or gaseous in nature) which is toxic, explosive, corrosive, flammable, infectious, radioactive, carcinogenic, mutagenic, or otherwise hazardous or dangerous;

(4) any substance (whether solid, liquid or gaseous in nature) the presence of which could cause or threaten to cause a nuisance upon the area subject to Permit or to adjacent properties or pose or threaten to pose a hazardous threat to the health or safety of persons on or about such properties;

(5) any substance (whether solid, liquid or gaseous in nature) the presence of which on adjacent properties could constitute trespass by or against Permittee or District;

(6) any materials, waste, chemicals and substances, whether solid, liquid or gaseous in nature, now or hereafter defined, listed, characterized or referred to in any Environmental Laws as "hazardous substances," "hazardous waste," "infectious waste," "medical waste," "extremely hazardous waste," "hazardous materials," "toxic chemicals," "toxic substances," "toxic waste," "toxic materials," "contaminants," "pollutants," "carcinogens," "reproductive toxicants," or any variant or similar designations;

(7) any other substance (whether solid, liquid or gaseous in nature) which is now or hereafter regulated or controlled under any Environmental Laws (without regard to the action levels, concentrations or quantity thresholds specified herein); or

(8) any result of the mixing or addition of any of the substances described in this Subsection B with or to other materials.

C. "Phase I Environmental Assessment" shall mean:

(1) environmental assessments of real estate, bedrock and groundwater of the type found on the Permit Premises and said assessment shall include, but not necessarily be limited to a historical review of the use (abuse) of the Permit Premises, a review of the utilization and maintenance of hazardous materials on the Permit Premises review of the Permit Premises' permit and enforcement history (by review of regulatory agency records), a site reconnaissance and physical survey, inspection of Permit Premises, site interviews and site history evaluations, basic engineering analyses of the risks to human health and the environment of any areas of identified concerns, and preparation of a written report which discusses history, site land use, apparent regulatory compliance or lack thereof and which includes historical summary, proximity to and location of USTs, LUSTs, TSDFs, CERCLA site flood plain, maps, photograph log references, conclusions and recommendations.

D. "Phase II Environmental Assessment" shall mean:

(1) an assessment of the Permit Premises and a reasonable area of the adjacent property owned by the District performed by an independent and duly qualified, licensed engineer with experience and expertise in conducting environmental assessments of real estate, bedrock and groundwater of the type found on the Permit Premises and said assessment shall include, but not necessarily be limited to, extensive sampling of soils, groundwaters and structures, followed by laboratory analysis of these samples and interpretation of the results, and preparation of a written report with boring logs, photograph logs, maps, investigative procedures, results, conclusions and recommendations.

9.02 MANUFACTURE, USE, STORAGE, TRANSFER OR DISTRIBUTION OF HAZARDOUS MATERIALS UPON OR WITHIN THE PERMIT

Permittee, for itself, its heirs, executors, administrators, and successors covenants that to the extent that any Hazardous Materials are manufactured, brought upon, placed, stored, transferred, conveyed or distributed upon or within the Permit Premises, by Permittee or its subtenant or assigns, or any of its agents, servants, employees, contractors or subcontractors, same shall be done in strict compliance with all Environmental Laws.

Construction or installation of new or reconstruction of any underground interconnecting conveyance facilities for any material or substance is not permitted without the advance written consent of the Chief Engineer of the District.

9.03 USE OF PREMISES (RESTRICTIONS - ENVIRONMENTAL)

Permittee shall use the Permit Premises only for purposes expressly authorized by Article 1.01 of this Permit Agreement. Permittee will not do or permit any act that may impair the value of the Permit Premises or any part thereof or that could materially increase the dangers, or pose an unreasonable risk of harm, to the health or safety of persons to third parties (on or off the Permit Premises) arising from activities thereon, or that could cause or threaten to cause a public or private nuisance on the Permit Premises or use Permit Premises in any manner (i) which could cause the Permit Premises to become a hazardous waste treatment, storage, or disposal facility within the meaning of, or otherwise bring the Permit Premises within the ambit of, the Resource Conservation and Recovery Act of 1976, Section 6901 et seq. of Title 42 of the United States Code, or any similar state law or local ordinance, (ii) so as to cause a release or threat of release of Hazardous Materials from the Permit Premises within the meaning of, or otherwise bring the Easement Premises within the ambit of, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 9601 et seq. of Title 42 of the United States Code, or any similar state law or local ordinance or any other Environmental Law or (iii) so as to cause a discharge of pollutants or effluents into any water source or system, or the discharge into the air of any any emissions, which would require a permit under the Federal Water Pollution Control Act, Section 1251 of Title 33 of the United States Code, or the Clean Air Act, Section 741 of Title 42 of the United States Code, or any similar state law or local ordinance.

9.04 CONDITION OF PROPERTY (ENVIRONMENTAL)

A. In the event Permittee has used the Permit Premises under a prior Permit agreement, Permittee warrants and represents that as a result of the Permit grant, the Permit Premises and improvements thereon, including all personal property, have not been exposed to release,contamination by any Hazardous Materials, that there has not been thereon a release, discharge, or emission, of any Hazardous Materials during its occupancy of the premises as defined by any Environmental Laws, and that the Permit Premises does not contain, or is not affected by underground storage tanks, landfills, land disposal sites, or dumps.

B. In the event of a release, emission, discharge, or disposal of Hazardous Materials in, on, under, or about the Permit Premises or the improvements thereon, during the term of this Permit (except such release,

emission, discharge or disposal by the District, its employees, agents or its other permittees. Permittee will take all appropriate; response action, including any removal and remedial action after the execution date of this Permit Agreement.

9.05 INDEMNIFICATION (ENVIRONMENTAL)

A. In consideration of the execution and delivery of this Permit Agreement, the Permittee indemnifies, exonerates, and holds the District and its officers, officials, Commissioners, employees, and agents ("Indemnified Parties") free and harmless from and against any and all actions, causes of action, suits, losses, costs, liabilities and damages and expenses incurred in connection with any of these (irrespective of whether any such Indemnified Party is a party to the action for which indemnification is here sought, including reasonable attorney's fees, costs and disbursements, incurred by the Indemnified Parties as a result of or arising out of or relating to (i) the imposition of any governmental lien for the recovery of environmental cleanup costs expended by reason of Permittee's activities, or (ii) any investigation, litigation, or proceeding related to any environmental response, audit, compliance, or other matter relating to the protection of the environment, resulting from or related to Permittee's activities, or (iii) the release or threatened release by Permittee, its subsidiaries, or its parent company, of any Hazardous Materials, or the presence of Hazardous Materials on or under the Permit Premises, (except such presence created by the District, its employees, agents or its other permittees), or any property to which the Permittee, its parent company or any of its subsidiaries has sent Hazardous Materials, (including any losses, liabilities, damages, injuries, costs, expenses, or claims asserted or arising under any Environmental Law), to the extent caused by or within the control of the Permittee, its parent company or its subsidiaries, provided that, to the extent District is strictly liable under any Environmental Laws,Permittee's obligation to District under this indemnity shall be without regard to fault on the part of the Permittee with respect to the violation of law which results in liability to the District.

9.06 ENVIRONMENTAL COVENANTS

Permittee agrees to and covenants as follows:

A. Permittee covenants and agrees that, throughout the term of the Permit Agreement, all Hazardous Materials which may b e used by Permittee or person permitted by Permittee upon the Permit Premises shall be used or stored thereon only in a safe, approved manner, in accordance with all generally accepted industrial standards and all Environmental Laws.

B. Permittee has been issued and is in compliance with all permits, certificates, approvals, licenses, and other authorizations relating to environmental matters and necessary for its business, if any.

C. Permittee, to the best of its knowledge, is not a potentially responsible party with respect to any other facility receiving waste of the Permittee (whether or not from the Permit Premises) under CERCLA or under any statute providing for financial responsibility of private parties for cleanup or other actions with respect to the release or threatened release of any Hazardous Materials.

D. Permittee will take all reasonable steps to prevent a violation of any Environmental Laws and to assure that there will be no spill, discharge, leaks, emission, injection, escape, dumping, or release of any toxic or Hazardous Materials by any persons on the area to be used and under the Permit Agreement.

E. Permittee will not allow the installation of asbestos on the area described in Exhibit A or any item, article, container or electrical equipment, including, but not limited to, transformers, capacitors, circuit breakers, reclosers, voltage regulators, switches, electro-magnets and cable, containing PCBs.

F. The aforesaid representations and warranties shall be survive the expiration or termination of the Permit Agreement.

9.07 COVENANTS (ENVIRONMENTAL)

Permittee shall cause its parent company and each of its respective subsidiaries, contractors, subcontractors, employees and agents to:

A. (1) Use and operate all of the Permit Premises in compliance with all applicable Environmental Laws, keep all material permits. approvals, certificates, and licenses in effect and remain in material compliance with them;

(2) undertake reasonable and cost-effective measures to minimize any immediate environmental impact t of any spill or leak of any Hazardous Materials caused or permitted by Permittee;

B. Notify District by telephone within two hours of the release of Hazardous Materials, including the extent to which the identity of the Hazardous Materials is known, the quantity thereof and the cause(s) of the release, and provide District within 72 hours of

the event, with copies of all written notices by Permittee, its parent and its subsidiaries that are reported to government regulators or received from the governmental regulators.

C. Provide such information that District may reasonably request from time to time to determine compliance by the Permittee with this Article.

D. Permittee covenants and agrees to cooperate with District in any inspection, assessment, monitoring or remediation instituted by District during the Permit Agreement.

9.08 COMPLIANCE (ENVIRONMENTAL)

The Permittee will cause its parent company and each of its subsidiaries, if any, to exercise due diligence to comply with all applicable treaties, laws, rules, regulations, and orders of any government authority.

A. In the event of a spill,leak or release of hazardous waste carried by Permittee, its employees or its agents, Permittee shall conduct a Phase I Environmental Assessment, at its own expense, with respect to the Permit Premises and a reasonable area of the adjacent property owned by the District, and submit the written report to the District within 90 days after the spill, leak or discharge. After review of each Phase I Environmental Assessment, District, at its sole discretion, may require Permittee, at Permittee's expense, to obtain a Phase II Environmental Assessment with respect to the premises used under the Permit Agreement. The written report of the Phase II Environmental Assessment shall be submitted to District within 120 days of District's request for same. If the Phase II Assessment discloses the presence of any Hazardous Materials contamination on the Permit Premises or adjacent premises, Permittee shall take immediate action to remediate the contamination and to restore the Permit Premises described in Exhibit A and adjacent premises owned by the District to a clean and sanitary condition and to the extent required by any and all environmental laws.

B. Capacitors, transformers, or other environmentally sensitive installations or improvements shall be removed at the end of the Permit Agreement, at District's election.

C. If any Environmental Assessment reveals, or District otherwise becomes aware of, the existence of any violation of any Environmental Laws that either Permittee is unwilling to remediate or that District is unwilling to accept, District shall have the right and option to terminate this Agreement and to declare it null and void.

D. In the event Permittee should receive a Notice of Environmental Problem, Permittee shall promptly provide a copy to the District, and in no event later than seventy-two (72) hours from Permittee's and any tenant's receipt or submission thereof. "Notice of Environmental Problem" shall mean any notice, letter, citation, order, warning, complaint, inquiry, claim, or demand that: (i) the Permittee has violated, or is about to violate, any Environmental Laws; (ii)there has been a release, or there is a threat of release, of Hazardous Materials, on the Permit premises, or any improvements thereon; (iii) the Permittee will be liable, in whole or in part, for the costs of cleaning up, remediating, removing, or responding to a release of Hazardous Materials; (iv) any part of the Permit Premises or any improvements thereon is subject to a lien in favor of any governmental entity for any liability, costs, or damages, under any Environmental Laws, arising from or costs incurred by such government entity in response to a release of Hazardous Materials, Permittee shall promptly provide a copy to the District, and in no event later than seventy-two (72) hours from Permittee's and any tenant's receipt or submission thereof.

9.09 INSPECTION AND RIGHT OF INSPECTION (ENVIRONMENTAL)

A. In the event Permittee gives notice pursuant to the provisions of Notice of Environmental Problem, within ninety (90) days Permittee shall submit to District a written report of a site assessment and environmental audit, in scope, form and substance and prepared by an independent, competent and qualified, professional, registered engineer, satisfactory to the District, showing that the engineer made all appropriate; inquiry consistent with good commercial and customary practice, such that, consistent with generally accepted engineering practice and procedure, no evidence or indication came to light which would suggest there was a release of substances on the Site or Property which could necessitate an environmental response action, and which demonstrates that the Site and Property complies with, and does not deviate from, all applicable environmental statues, laws, ordinances, rules and regulations, including licenses, permits, or certificates required thereunder, and that the Permittee is in compliance with, and has not deviated from, the representations and warranties previously set forth.

B. District hereby expressly reserves to itself, its agents, attorneys, employees, consultants, and contractors, an irrevocable license and authorization to enter upon and inspect the Permit Premises and improvements thereon, and perform such tests, including without limitation, subsurface testing, soils, and groundwater testing, and other tests which may physically invade the Permit Premises or improvements thereon, as the District, in its sole discretion, determines is necessary to protect its interests.

C. Paragraphs .502(b) hereof, which have been crossed out are expressly excluded as operative terms of this permit.

IN WITNESS WHEREOF, on the day and year first above written, the parties hereto have caused these presents, including Riders and Exhibits, if any, to be duly executed, duly attested and their corporate seals to be hereunto affixed.

THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

By: Hugh H. McMullen
General Superintendent

ATTEST:

Mary C. West
Clerk

By: D E A

Its: VP ~~President~~ Chief Financial Officer

ATTEST:

Its: Secretary

COMMONWEALTH OF PENNSYLVANIA)
) S.S.
COUNTY OF ALLEGHENY)

I, Rose Marie Hilinski, a Notary Public in and for said County, in the Commonwealth aforesaid, DO HEREBY CERTIFY that Donald E. Davis, personally known to me to be the Vice President, Chief Financial Officer, of Koppers Industries, Inc., a Pennsylvania corporation, and Randall D. Collins, Corporate Secretary, personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such Vice President and Secretary they signed and delivered the said instrument of Koppers Industries, Inc. and caused the corporate seal of said corporation to be affixed thereto pursuant to authority given by the Board of Directors of Koppers Industries, Inc., as their free and voluntary act and as the free and voluntary act and deed of said corporation, for the uses and purposes therein set forth.

Given under my hand and Notarial Seal this 6th day of October, 1995.

Rose Marie Hilinski
NOTARY PUBLIC

My Commission Expires:

Notarial Seal
Rose Marie Hilinski, Notary Public
Pittsburgh, Allegheny County
My Commission Expires June 21, 1997
Member, Pennsylvania Association of Notaries

STATE OF ILLINOIS)
) SS.
COUNTY OF COOK)

I, Frederick M. Feldman, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that Hugh H. McMillan, personally known to me to be the General Superintendent of the Metropolitan Water Reclamation District of Greater Chicago, a municipal corporation, and Mary C. West, personally known to me to be the Clerk of said municipal corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such General Superintendent and Clerk of said municipal corporation, they signed and delivered the said instrument as the General Superintendent and Clerk of said municipal corporation, and caused the corporate seal of said municipal corporation to be affixed thereto, pursuant to authority given by the Board of Commissioners of said municipal corporation, as their free and voluntary act and as the free and voluntary act and deed of said municipal corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 12th day of October, A.D. 1995.

Frederick M. Feldman

NOTARY PUBLIC

My Commission Expires:

"OFFICIAL SEAL"
FREDERICK M. FELDMAN
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 10/30/97

APPROVED:

Thomas K. O'Connor 10/9/95

Chief, Maintenance and Operations

APPROVED AS TO FORM AND LEGALITY:

Frederick M. Field 10-9-95

Head Assistant Attorney

Michael A. Rosenberg

Attorney

APPROVED:

Hugh H. McMillan

General Superintendent

ENCLOSURE #4

7:35 Started Steam to 144K

8:10 Walked and listened to pipe & felt for heat - heard gurgling & line was not not

8:15 shut value to 144k figuring something was not right

8:20 Went to east pump house heard steam hammer once & saw steam coming out of opening went down & shut off steam & called supervisor & started setting up boat for deployment

IVANNA 1810

Semi: Overnight

Metal tommorrow a.m.

Volatiles -

9-28-95

1. ReStart dredging ASAP pending MWRD approval with all effluent from plant flowing through 2 large Act. rated Carbon units
2. Seal all ongoing releases (a) above water (ASAP)
   (b) below water Action Cond.
   Tom McDonald 312-268-3004
3. Today COB addendum time Line schedule
4. Designated barge lead for Koppers / Alternate
5. 3' Long 2" lexan w/caps
6. Lights for booms + barge Strobe

Frank - Coast Guard

7. Non Boomed area dredged 1st w/ 2nd dive unit sealing bulkhead

Randy Staehling

Lights Not Coast Guard Approved - Revolving + Flashing Light
Ison - Jeff 735FI
800-562-6174
904-789-9054

8. Silt curtain around dive area

9. Sump 7' below water elevation W139-144
   Slotted PVC .03 2nd 155'

Flet-on Sealant unit available next Tuesday
Cost $65.70 /gal

Jeff Bass CG

Standard boom light
Solid Red light on Edge of Barge
Rules Navigation of Road

*Move barge find drill rig

354-420

4:57 9-28-95

Rich Sustich, Dr. Lue-Hing MWRD
Joe Madonia, Jim Morrin, G. Trent, R. Harsh
W. Swearingen, M. Cilley
Walter Neid - USEPA

Support from Region V
Drafting letter tonight
Concerns
1. Discharge caused violation of DA
MWRD incurred action from USEPA
2. Liability that district occurred from
wastewater stream.
Agency indemnify MWRD
Koppers indemnify MWRD

Letter of understanding

800-617-1051
906-341-3519
Leonard Zinzak

9-29-95

Health + Safety Plan

TAT { Mike Dickhouse - Call Len Pager 1 800-617-1057
Dave Thrasher

Jeff Cox Attorney 312 353 3112

Jim Herlihy → Selz + Seabolt 312-372-7090
Virginia Narsett → USEPA Community Affairs 312-353-20

Water Treatment

Cigna
Bruce Leinen 10-2-95
drop by tommorrow 10-10:30

Phone #'s

USEPA
Richard Karl
Chief Emerg. Response Branch
312-353-9295
Fax 312-353-9176

Frank Rollins
312-353-2102

Leonard Zintak, Jr.
312-886-4246 Fax 353 9176
300-617-1057 Pager

Tom Basso
312-886-0760

Virginia Narsett
312-353-2000
*353-2318

IL EPA
Allen Anderson - Maywood

Karen Vendl pager - 1-800-617-499

EMS
Dave Gilson
612-944-8543

onsite - Chuck Ossont
Rm 365 William Tell

Rain For Rent
Mark - 1-800-742-7246

MWRD
John Kelly
312-751-5948
Fax 312-751-5960

Dr. Lue Hing
312-751-5190
Fax 5194

10-3-95

Conference Call w/ USEPA
Joe Madonia, Mark Colley, Bob Shuttan
Len Zintak, Karen Vendl, Rich Karl, Jeff Cox

Require headquarter approval and will not happen in a timely fashion

No action letter
Policy (Bullshit) → Headquarters

Tom McSwiggen

10-3-95

Call to IEPA
Steve Nightingale
Fill out NPDES Permit Application

USC authorize discharge
1. description of modification of treatment
System
Oil Cleanup
analytical
Tom McSwiggin Phone
Fax 217-782-9891 217-782-0610

Important Message

Time: 2:03 Date: 10/
For: Mark
From: Jim Hynd
U.S. Coast Guard
Telephone: (708) 986-2135

☒ Telephoned
☐ Wants to see you
☐ Returned your call
☐ Was here to see you
☒ Please ca
☐ Will call ag
☐ URGENT

Message: re: passage of barge traffic.

Taken by: Cathy

Post-it® 7679-4 ©3M 1993

Important Message

Time: 3:40 Date: 10/3
For: Mark
From: Tom McSwiggin
US EPA
Telephone: (217) 782-0610

☒ Telephoned
☐ Wants to see you
☒ Returned your call
☐ Was here to see you
☒ Please call
☐ Will call again
☐ URGENT

Message: 0900 @ 10-5-95

Taken by: Cathy

Call To IEPA 10-5-95

0900 Tom McSwiggin
Steve Knightingale

Pre empted from any permit action
Power w/OSC

Discharge Standards
Daily Sampling for 1st wk then every 2-3 days

9:25 Call MWRD Carlton Lowe
Formal Request send to
Fred Feldman
Board of Commissioners
FAX → 312-751-6598

Coast Guard letter.

1530 Section 304 State
.4 Lead

10-5-95

3.21 Corps of Engineers
312-353-6428
No Response

EMS

- Polycoated Tyvek
- SARANAX®
- Nitrile Vinyl
- ~~Natural~~ Butyl Rubber ?
- Leather outer gloves

} glove combinations

Coal Tar MSDS To Donovan

MARK

KW Had To GO Home

WRD 0826. TMP
WRD 2552 TMP

MARK

call HeartAge ~~[illegible]~~ at 7:00pm
Re Room Lights.

- Ben	1.0 ppm	ppb range	Water miscible
- Naph	10 ppm		Solid
CTPVs coal tar pitch volatiles	0.2 mg/m3		Not App

Tasks - Manual surface skimming
- Sediment vacuuming
- Drumming
- Decon
- Surface skimming (vacuum)

Coast Guard
Scott K
Pager - 708-861-6016

100 Ton

12,950 / 10 days

175,000 mobilization + demobilization

3,000 yd^3 material + debris

Nov 15, availability

1500 - 3000 yd^3 ~ 40,000 - 80,000

x 545

11-1-95

Site Safety Audit

Grade "D" Breathing Air

* Ground Fault Protection 110

Throwable Flotation Device

11-2-95

Meeting w/ Superior
Corp Permits

U.S. Department of Transportation

United States Coast Guard

COMMANDING OFFICER

NOTICE OF FEDERAL INTEREST FOR AN OIL POLLUTION INCIDENT

COMMANDING OFFICER
USCG MSO CHICAGO
215 W 83rd STREET
BURR RIDGE, IL 60521-7059

KOPPERS INDUSTRIES
3900 S. LARAMIE
CICERO, IL 60650
ATTN: MARK CILLEY

Gentlemen:

On or about 08SEP95, 2010L (8:10 PM), an oil pollution incident occurred or threatens to occur at KOPPERS INDUSTRIES M.M. 316.8 CSSC. You may be financially responsible for that incident. Under Federal Statutes, the United States Government may take action to minimize or mitigate damage to the public health or welfare that is threatened or that may be caused by this incident.

Under the Oil Pollution Act of 1990, the responsible party is liable for, among other things, removal costs and damages resulting from this incident. The failure or refusal of the responsible party to provide all reasonable cooperation and assistance requested by the Federal On-Scene Coordinator (OSC) will eliminate any defense or entitlement to limited liability which otherwise might be available under the Act.

You are advised that your failure to properly carry out the removal of the discharge as ordered by the OSC or to comply with any administrative orders necessary to protect the public health and welfare, may subject you to additional penalties. For such failure, owners, operators, or persons in charge of the vessel or facility from which the oil is discharged are subject under the Federal Water Pollution Control Act (FWPCA), as amended, to a civil penalty of up to $25,000 per day of violation or up to 3 times the costs incurred by the Oil Spill Liability Trust Fund. Should you require further information concerning this matter, please contact 708-789-5830 at the above address and telephone number.

As long as the OSC determines that you are taking adequate actions in this matter, Federal removal action will usually be limited to monitoring the progress of your actions and providing guidance as necessary. Under the FWPCA, as amended, your response actions may be taken into account in determining the amount of any penalty assessed as a result of the discharge.

Sincerely,

James M. Pirko

Received and Acknowledged: Mac A. Meade

Witness(es): Mac A. Meade USCG/Gm2

Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Office

215 West 83rd St., Suite D
Burr Ridge, IL 60521
Phone: (708) 789-5830

STATEMENT FORM

On the 8th day of Sept. I (Tony Wallace) was finish with a transfer of tar from oils - terminal to Koppers tar plant, started blowing out my line from Dock pump house to 17 tk. which is on the west end of the dock, at 1735, with should have been 90 to 130 psi of steam. At 2015 went to shut off steam, as I was going down the dock stairs the line broke and steam and tar was going everywhere - I couldn't get down to close off valves until the spraing of tar slowed down which was 2020. Shut off all valves and called foreman to let him know of problem.

Continue on additional sheets if necessary, or on back of this one

Anthony R. Wallace — Anthony R. Wallace — 9/8/95

Printed name of person making the statement — Signature — Date

Printed name of witness — Signature — Date

Page _____ of _____ pages

Enclosure # ( )

BOAT WORK

PERSONAL PROTECTIVE EQUIPMENT

SPIRATORS	CLOTHING	GLOVES	BOOTS
plied Air	Work Uniform	Interior	~~Work Boots~~
SCBA	CPF I	Nitrile	Latex Covers
Airline/EBUAir	CPF II	Silver Shields	Nitrile/PVC
ifying	~~CPF III~~	Latex	Metatarsal
Full Face	Tyvek (yellow)	Exterior	PVC Boot Cover
Half	~~Saranex~~	PVC	
Cartridges	PVC Rainsuit	Nitrile	
GMC-H	Tyvek (white)	Butyl	
		Viton	
		Neoprene	

LEVE D IF: PPM IS BELOW 10 PPM

OTHER	SPECIAL INSTR.	DECON
afety Glasses	Ground all Equipment	Use soap and water to clean hands and equipment.
rd Hat	Use Hooded Suits	
oggles	Duct Tape All Extemities	
ace Shield	Double Interior Glove	
ar Plugs		

L. STELLY (WB) 9-8-95

Technical Services Representative Date

EMERGENCY RESPONSE PLAN

Generator/Plant Information

Fire: Telephone No: 911
Ambulance: Telephone No:
Hospital: * CALL LOCAL Telephone No:
Directions: ~~AMBU~~ AMBULANCE FOR ASSISTANCE

EMERGENCY PREPAREDNESS

DECON EQUIP

PERSONAL PROTECTIVE EQUIPMENT

ESPIRATORS	CLOTHING	GLOVES	BOOTS
ıpplied Air SCBA Airline/EBUAir :rifying Full Face Half ceCartridges GMC-H	~~Work~~ Uniform CPF I ~~CPF II~~ CPF III Tyvek (yellow) Saranex PVC Rainsuit Tyvek (white)	Interior Nitrile Silver Shields Latex Exterior PVC Nitrile ~~Butyl~~ Viton Neoprene	Work Boots Latex Covers Nitrile/PVC Metatarsal PVC Boot Cover

OTHER	SPECIAL INSTR.	DECON
Safety Glasses Ia. Iat ~~Goggles~~ Face Shield ~~Ear Plugs~~	Ground all Equipment ~~Use Hooded~~ Suits Duct Tape All Extemities Double Interior Glove	Use soap and water to clean hands and equipment.

L STELLY 9-21-95

Technical Services Representative Date

EMERGENCY RESPONSE PLAN

Generator/Plant Information

Fire: Telephone No:
Ambulance: Telephone No:
Hospital: Telephone No:
Directions:

EMERGENCY PREPAREDNESS

Safety Equipment

HERITAGE

PROJECT SCOPE OF WORK

CUSTOMER ADDRESS: Koppers
39th + LAFAMIE
CHICAGO, IL

JOB No.: 8116
CONTACT: ROBERT HARSH
TITLE: ENV. SUPV
PHONE: 708-656-5900
FAX: 656-6079

PROPOSED DATES OF WORK: 9-8-95

DIRECTIONS: I 55 N TO CENTRAL N TO 39th RIGHT TO LAFAMIE RT

SITE PROCESSES/ HISTORY: BULK TERMINAL

SCOPE OF WORK

Detailed Job Task Descriptions	Equipment
Spill - Cold Tar	- OPA Trailer - Booms

HAZARD EVALUATION (you MUST attach MSDS for all chemicals/materials)

Chemical/Material	Amount	Concentration
Cold Tar	200 gal +	* SEE MSDS

Physical Hazards: Confined Space ___ Water Blasting ___ Energized/Pressurized Lines or Equipment ___

KOPPERS COMPANY, INC.
PRELIMINARY REPORT OF PROPERTY LOSS

NOTE: THIS REPORT TO BE SUBMITTED IMMEDIATELY AFTER OCCURRENCE OF ACCIDENT RESULTING IN LOSS OR DAMAGE TO PROPERTY OWNED OR LEASED BY KOPPERS, SUCH AS: BUILDINGS, EQUIPMENT, INVENTORIES, PRESSURE VESSELS, TANK CARS, AIRCRAFT, BARGES, ETC.

COMPANY OR DIVISION: Tar Operations LOCATION: Stickney COUNTY: Cook STATE: Illinois

FORM OF ACCIDENT—FIRE ☐, EXPLOSION ☐, WINDSTORM ☐, SPRINKLER LEAKAGE ☐, COLLISION ☐, CRASH ☐, UPSET ☐ Line Rupture ☒

PLACE OF ACCIDENT (IF OTHER THAN PLANT): Oils Terminal

DATE OF ACCIDENT: 9/8/95

HOW CAUSED: Welded plug in 8" tee on the west tank farm transfer line broke free

TIME OF ACCIDENT: 7:35 A.M. - P.M.

APPROX. COST OF REPLACEMENT OR REPAIRS—FOR PURPOSE OF INSURANCE LOSS RESERVE:

DESCRIBE PROPERTY DAMAGED (INCLUDE BUILDING NUMBER, ETC.): Residual CCOT in line discharged onto soil and into Ship and Sanitation Canal

$600,000 for spill removal

DESCRIBE LOSS OR DAMAGE SUSTAINED: The transfer line is presently unusable. The spill onto the leased terminal property and the canal must be removed and disposed of.

ESTIMATE LOSS OF PROFITS AND CONTINUING EXPENSES (U. & O. LOSS):

WILL PROPERTY BE REPAIRED OR REPLACED: Unknown at this time.

IF PLANT HAS BEEN DAMAGED, WILL PRODUCTION BE INTERRUPTED: No, not as of now.

WILL ALL OR ONLY PART OF PLANT BE SHUT DOWN: There are no transfers to and from the west tank farm.

APPROXIMATELY HOW LONG MAY PRODUCTION BE INTERRUPTED: Transfers from the Terminal to the Tar Plant have been suspended until clean up is substantially complete. Estimated to be 9/25/95.

IF FIRE, HOW WAS IT EXTINGUISHED: N/A

WAS FIRE FIGHTING EQUIPMENT IN GOOD CONDITION: N/A

WHAT ADDITIONAL EQUIPMENT, IF ANY, IS NEEDED: N/A

WHO OR WHAT WAS RESPONSIBLE FOR ACCIDENT: Failure of welded plug

WHAT CAN OR SHOULD BE DONE TO PREVENT RECURRENCE: Use proper pipe fittings and good welding practice. Relocate line to area protected by containment dike.

NAMES OF PERSONS INJURED IN ACCIDENT AND NATURE OF INJURIES (ALSO SUBMIT REPORT ON ID-S-23): N/A

...AGE AND PROTECTION — IT IS THE RESPONSIBILITY OF OUR COMPANY TO PROTECT THE PROPERTY FROM FURTHER DAMAGE BY THE ...MENTS; IMMEDIATELY SEPARATE DAMAGED AND UNDAMAGED PERSONAL PROPERTY AND PUT IT IN THE BEST POSSIBLE ORDER, CLOSE ...ENINGS AGAINST WEATHER, REMOVE WATER, DRY OUT MOTORS AND OTHER ELECTRICAL APPARATUS AND RECLAIM AND RECONDITION ...VERYTHING POSSIBLE, FOLLOWING BEST JUDGEMENT AS TO HOW BEST TO RECOVER THE GREATEST VALUE.

DATE OF REPORT: September 15, 1995 REPORTED BY: J. W. Lamb

1 COPY (THE ORIGINAL) TO INSURANCE SECTION, PITTSBURGH, PA.
1 COPY TO FACILITY SAFETY OR SECURITY DIRECTOR
1 COPY TO DIVISION OR DEPARTMENT SAFETY DIRECTOR

Illinois Environmental Protection Agency

Division of Water Pollution Control
Permit Section
2200 Churchill Road, Post Office Box 19276
Springfield, Illinois 62794-9276

Message From: Steve Nightingale

Message To: Mark Cilley

Company/Agency: Koppers

City & State: Cicero Il.

Telecopier Number: 708/656-6079

Number of Pages: 1 (not including cover)

Project Reference: Koppers Emergency Response Clean-up

Subject: Koppers Industries Inc. request for emergency discharge standards from the IEPA for Illinois emergency response incident number 951884.

Wastewater from the coal tar recovery operation will be treated by the existing on-site pretreatment system followed by activated carbon treatment. The treated wastewater will then be discharged to Chicago Sanitary and Ship Canal under USEPA emergency discharge authorization.

Based on the review of the information provided, the following effluent limits would apply to the discharge.

	Limitation (mg/l)	
Parameter	30 Day Avg.	Daily Max.
Total Priority Pollutant PNA's		0.1
Benzene		0.05
Total BETX*		0.75
Lead	0.2	0.4
Zinc	1.0	2.0
PH	6 to 9 S.U.	

*Benzene, ethylbenzene, toluene, xylene(s)

KOPPERS INDUSTRIAL INC.
DAILY LOGS
9/16/95 TO

9/16/95

0530 On site
0600 Started work on the umbilical
0615 Jeff & Simon started to move dive station to the concrete slab by the pump house.
0800 Flyght pump does not work.
0830 Broke wire on power cable to switch box.
0845 1/4" fitting on console not 3/8".
0915 Flyght pump working, election wont to switch out the main breaker in KOPPERS main power panel.
1000 Adapted EMS HP air whips to fit between console and HP banks.
1015 Moved HP banks to concrete slab.
1045 Langley (Heritage) came up with a 120' x 30' barge with a crane w/ 80' stick.
1100 Hat light cable broke, umbilical was working Wednesday.
1200 Lunch
1215 Hat light cable fixed, finished taping.
1230 Light check out ok.
1232 Ladder over the side, diver getting dressed
1250 Heritage will bring in a boat to be used for Decon.
1347 L/S, dive 1, Cleasby, diver in water, checking for leaks.
1355 Started survey.
1410 First pass, no material, E side of pump house to oil boom.
1430 Second pass, from oil boom 20' W of first pass to sheet pile.
1505 Third pass 20' W of second, half way back to the oil boom an oil sheer was coming to the surface.
1510 Backed up to the second pass and set up grid.
1533 Started to dredge.
1542 Top material is very light, hard bottom under. (3" to 8" thick)
1556 Bill DePue KOPPERS Contact
1600 1500 PSI in bank one
1714 Added 12' section of drainage tile
1734 Pump hot :9 to make connection
1754 Flygt Pump plugged
1806 Screw anchor with buoy placed.
1807 LB/RS/started Decon.
Area cleaned about 80' x 8'
1825 Decon diver completed.
1839 Gear Decon completed
* Called Pat about Flygt Pump, Impeller and bearing
1928 Site clean & locked

KOPPERS Daily Log 09/16/95

2042 Called Dave G informed him about the problem with the Flygt Pump.

Koppers Daily Log, 09/17/95

0535 On site
0535 Called maintenance to get Flygt Pump to shop.

Flygt Pump information;
CS3152 type
8771074 454
Ser/ Y// 15KW-20 (cos) U.82
460/230 (v) 27/54 (a) 3.60 (Hz) S1
1750 rpms
** Called Kevin from Portable Tools 708-841-2600
Model CS3152B
Impeller 454

0615 Flygt pump will be taken to KOPPERS shop.
0630 At shop talked to Kevin about our pump, He is trying to get us a pump for today and get parts to fix ours pump.
0715 Back at pump house waiting for phone call about pump.
0725 Welder on site to weld a grid on our dredge head to keep large material out of pump.

Crew working on topside system and changing oil in the hat.

0807 Kevin Portable tools;
-Checked with all his rental offices, no luck
-All parts managers are out of town.
0811 Bill DePue is going to take the pump apart to check the spec.
0816 Welder back with dredge head, asked to have more bars added.
0825 Called Heritage, status on barge.
0831 Called Pat, he will get in touch with Dave to get our parts send to us.
0841 Oillie, Rob status on barge and pump
0908 Meeting completed.
0930 Bill DePue brought back the Flygt pump to site, wear ring shot, lower housing, and impeller worn out. Impeller was lose, he tighten it and said bearing were within spec.
0939 Called maintenance to connect electrical.
1000 Spoke with Kevin from Portable Power, explained to him what we found out about the pump. Asked if we would damage the pump any more if we run it and how much suction we would loose. He guessed no more than 10% and would not hurt the pump any more. Asked him to fax a part list to KOPPERS and what we would need for a complete rebuild of the lower unit.
1010 Electrical power being connected
1029 Connecting discharge host to pump and will run to check flow for one to two minutes, Plant will tell us volume.
1036 Test run

Koppers Daily Log, 09/17/95

1037 Shut down pumps, 6" discharge hose from Syke Pump to 8" KOPPERS hard pipe started to bust.
1110 KOPPERS 8" flange to Bauor connection Has to much weld on it, has to be grounded so we can connect our hoses.
1140 Hose fixed, testing pump.
1159 Discussed with Rob how to set up the barge before diving, ETA of barge 1200.
1204 Crane operator for barge on site.
1224 Dave Schlinker called with information for parts, invoice# 012-31572074, phone 312-471-4691
1247 Barge on site, position for loading.
1328 barge along side, barge crew is de-watering (2hr), EMS is tranfering dive station from concrete slab to barge. Goal is to get everything set up, tested, barge in place by 1930. So that tomorrow all we have to do is turn on the air, dress the diver and start the pumps.
1612 -Barge turned 90 degrees to sheet piles
-Dive station set up & tested
-ladder in place
-Flyght pump needs to be rigged
1630 Call Dave G. up-dated
-need tender
-more than likely to go to 24hr work day
-Flyght pump at airport
1925 Flyht parts pick-up, barge set and ready.

Koppers Daily Log, 09/18/95

Dave Schlinker, Frank Washburn arrived.

0545 On site
0640 Dressing diver
0744 Diver in water, 1100PSI in bank
0745 L/S, dive 2, Mackie.
0748 Placing buoys and clearing buoys.
0840 Pumping
0847 Tom from EPA brought Dave down to the barge, Dave will be with us until Wednesday. (Dave Thrasher w/ E&E)
0953 completed A1-3 section
1153 R/S Mackie 3:26 BT
1143 Schwinghammer dressing
1220 On Ladder
1221 L/S, dive 3, Schwinghammer.
1237 Blow hose from Sykes pump to 8" pipe.
1243 Hose replaced
1244 Pumping
1350 Diver reports that the cold tar has penetrated the soft slit and is laying on the hard bottom.
1451 Diver has not moved, still pumping large amounts of cold tar/# 6 oil from under the silt.
1551 L/D,R/S, very dirty, started Deconing.
1635 Diver Deconed.
1705 Working on hat to find leak
1735 Cold tar is all through the top side dump system, cleaning.
1810 Top side dump cleaned.
1925 Hat reassembled.
1930 Off site
2010 At hotel.

Koppers Daily Log, 09/19/95

0500 Left Hotel
0540 On site
0610 Checked hat for leaks.
0640 No leaks on hat.
0642 Dressing diver
0750 Diver dressed and enter water, no leaks.
0759 L/S, dive 04,Cleasby
0832 N/S grid line moved out to 100' south. Diver reports that there is about one foot of oil on the bottom.
0857 Discharge hose has come disconnected.
0909 Hoses reconnected, pump hot.
0938 Added 20' section of Bauor Pipe.
0949 Connection complete, pump hot.
1005 Add section of pipe.
1010 At oil pond in water (Mark Cilly knows about we found)
1026 Diver reports that 3/4 of dredge head is pulling material (cold tar/# 6 oil)
1053 Diver returning
1056 L/B, R/S, started Deconing.
1113 Hat off diver
1125 Called Dave G. with up date.
1220 Hat clean, Dressing diver.
1248 Hat on diver
1254 Diver L/S, dive 05
1257 Pump hot.
1538 Diver has moved less than 5'.
1601 Mark C. informed me that Met Water Reclamation District (MWRD) may shut us down until a letter is wrote.
1648 Stop dredging, sucked water for three minutes.
1653 Diver returning to ladder
1654 L/B, R/S, Starting Deconing
1706 Hat off diver.
1718 Diver out of suit, started clean up.
1925 Off site.

Koppers Daily Log, 09/20/95

0530 On site
0615 Ready to dive but no plant personnel to work valves
0704 Plant personnel on site, diver dressed.
0705 Hat the diver
0714 Diver enter water check for leaks.
0717 L/S, dive 06, Schwinghammer.
0718 Diver moving out.
0730 Pump hot, If diver moves he will move to the east.
0752 Diver back at ladder getting his helmet cleaned so that he can see.
0810 Grid line screw anchor pulled out.
0820 Grid line back in place.
0818 Pump hot. (Heritage reports that they have over 500 yards of oil boom out)
0848 Diver reports 1/4 of dredge head pulling material.
0955 Diver still pulling 1/4 dredge head of material.
1008 Pump cold to move hose/clean head.
1012 Pump hot.
(Sampler kit arrived)
1103 Sucking water only.
1109 L/B, R/S, Started Deconing.
1130 Hat off diver
1145 Diver out of suit.
1235 Hat as clean as possible, lunch.
1257 Dressing diver.
1315 Armor all diver suit and adding tyvek with bootie to help protect the suit.
1330 Hating diver
1342 L/S, dive 07, Cleasby.
1402 Taking two one pint grab samples, for KOPPERS and EPA
1408 Pump hot
1413 Rob was told samples were taken
1415 1/3 volume at dredge head
1420 Rob picked up sample, said that they have received about 8,000 gal of material.
1530 Diver location is 25W/115S, 1/3 material at head.
1606 Diver reported water in one foot, abort dive.
1607 Sucking water
1610 Returning
1612 L/B, R/S, Deconing
1620 Hat off diver
1710 Dave S. Returns with supplies and machined parts for helmet. Started to attach parts to helmet.
1730 Mark C. wonts us to start dredging to the east tomorrow.
-patch suit
-air testing all suits
-Deconing Weight belt & bail out bottle
1924 off site

Koppers Daily Log, 09/20/95

0530 on site
0539 Working on hat, checking suit that were patched for leaks, HP air rack moved.
0620 Diver dressing (Mackie)
0707 Put helmet on diver.
0712 L/S, 08, Mackie.
0721 Pump hot.
0727 1/4 to 1/3 material at dredge head.
0828 Add 20' section hard pipe.
0840 Diver moving to the east.
0845 Diver at South/East corner of barge.
0913 Diver OK, 1/4 material at dredge head (silt/oil)
1001 Diver says there is not in a large volume of material. Top side still has a large sheen. Visibility less than 3".
1042 Sucking water, Air truck is here.
1048 L/B, R/S, Deconing
1057 Helmet off diver.
1120 Diver getting dressed.
1210 Helmet on diver.
1218 L/S, dive 09, Schwinghammer.
1224 Pump hot
1407 Heritage move oil boom to clear area so diver can have clear area to surface.
- Pump cold, diver moving to clear area.
1413 Pump hot
1503 East of barge 120' south of sheet pile.
1532 Pumping only water
1540 L/B, R/S, Deconing.
1609 Out of suit, starting clean up
- Chuck and Dave back to hotel to work on paper work.
- two helmet to be cleaned
- Lakes and Rivers welding a Decon platform on west side of barge. (8' x 10' with hand rails)
1732 Chuck and Dave off site.
1927 Rest of crew off site.

Koppers Daily Log, 09/22/95

0530 On site
0545 Large sheen east of barge.
0550 Radio guard house, to have Mark C. give me a call ASAP. Moving suction line to east side of barge.
0635 Mark C. Called to notified me NO DIVING today. Problem at their end with the volume of water/material.
0640 Group Hug
-Simon inventory SL 17 Parts, need to know what we need for ten day supply.
-Jeff inventory Hazmat, Need the same.
-Stacy and Frank move pipe and check Sykes pump.
0703 Sykes pump plugged with plastic
0715 Called Dave Gillson, no answer
1140 Mark Cilly said no work on Saturday and maybe Sunday. Barge set up for east side pumping, waiting for deliveries.
1215 Lunch
1400 Meeting in my room to figure out a better grid dredge system and what we need to order.
1600 Meeting over
1610 Call Wendy (Amron) to find out were are order are and when we will get them. Order the following;
-40 510-651
-60 510-552
-40 510-553
1730 Enter invoices in computer

Koppers Daily Log, 09/23/95

- Crew rest
- Chuck went shopping for items we will need for new grid system, Vaseline to put on helmet for a coating, Snap hooks, and long screw anchors.
- Went to Koppers to find out how work on new filter system was coming and to pick up any deliveries;
    - Viking suits
    - Viking spare parts
    - Superlite parts (three boxes)
    - Grainger (one box)
    - 5 hr

Koppers Daily Log, 09/24/95

0530 On site
0550 Radio guard house to find out were plant man was to operate valve and Sykes pump, will not start dressing diver until plant personnel arrives.
0615 Plant valve operator on site, dressing diver.
0710 Helmet on diver.
0728 L/S, dive 10, Cleasby.
0749 Pump hot, S/E corner 115' off sheet pile, 10' east of barge.
0801 Diver reports 1/2 dredge head in material, about 6" deep.
0820 Point # 2 sheet A-1-C
0823 Point # 3 Sheet A-1-C
0832 Move pump 10' to the east
0839 Pump Cold
0842 Pump hot
0901 Pump cold, adding 10' pipe.
0906 Pump hot
0937 Moved 5' to south and 15' east, pumping oil.
0940 Diver reports good oil being pumped, topside said that there is a good sheen on the surface.
0946 120S/15E
1005 110S/20E
1016 L/B, R/S, Deconing
1022 Helmet off
1044 Helmet switched out, diver dressing
1103 Helmet on diver
1110 Checking for leaks
1112 L/S, dive 11, Mackie, on bottom.
1117 Pump hot
1126 Pump cold, Adding 10' rubber hard suction section.
1134 Pump hot
1157 diver reports large amount of material in silt, topside reports large sheen on surface. 115S/20 to 25 E
1340 Still good sheen on surface
1357 Pumping water.
1400 Pump cold, Koppers man is clearing Sykes pump
1404 L/B, R/S, started deconing
1436 Diver putting on tyvek outer overhauls.
1443 Helmet on diver.
1453 Checking for leaks
1454 L/S, dive 12, Schwinghammer.
1456 Taking a bucket down to get a bottom sample for Mark Cilly.
1459 Moving to dredge site.
1503 Part fell off Flyht Pump, sending tag line to get part.
1523 Lower section that connect the Bauor fitting came unscrewed and fell off.
1531 All connection made, pump hot.
1554 Getting sheen on surface.
1639 Added 20' Bauor pipe

Koppers Daily Log, 09/24/95

1648 Pump hot
1716 Pumping water
1718 Diver moving back to decon area.
1723 L/B, R/S, Deconing.
1734 Helmet off, starting night clean up
1923 Off site

Koppers Daily Log, 09/25/95

0530 On site, gate locked
0535 Guard house will get a key to get the gate unlocked.
0540 On site
0550 Started to switch suction pipe from starboard to port side of barge.
0804 Cell phone when dead only after two minutes into a phone call. Spoke to Rob about getting a phone on the barge.
0807 Guys are playing games.
0810 Helmet on diver
0813 L/S, dive 13, Schwinghammer
0815 Disconnected the 1/4" poly line and screw anchor, following it back into 50' screw anchor, removed it.
0835 N/E screw anchor installed for new grid system.
0915 Running west leg of grid.
0958 Pump hot, Schwinghammer grid clearing Hazmat system operational.
1052 Diver OK, small sheen on surface.
1120 Light sheen on surface, at 40'S/ 20' to 30' W.
1143 45'S/20' to 30'W.
1153 Pumping water
1157 Pump cold.
1157 L/B, R/S, Started Deconing
1207 Helmet off, finished deconing, eating lunch, Call Pat to see were the Viton rubber was?
1235 Simon show me the helmet that was taken off line after 3 dives and there was cold tar by the regulator oral nasal. Showed Mark Cilly what we had, and let him know that I could not dive the other helmet without checking it out. Mark agreed we have to check out both helmet before we dive them. 2 to 3 hr down time min.
1615 Mark C. came down to tell us no pumping tomorrow, only take two core samples. (Volume of water to great)
1730 Off site.

Koppers Daily Log, 09/26/95

0800 On site
- crew setting up dive station
- Simon reassembling second helmet
- Chuck picking up o-rings and fuel for Ford

0900 Rob Harsh on barge, working on paper work so we can start pumping.

0948 Patten Power delivered 4-10' section of rubber hard suction hose.

1000 Dressing diver to take two bottom core samples. Oil boom was pushed tight to barge, samples may have light film of oil due to any sediment from sheen. After each sample, the sampler will be deconed.

1049 Helmet on diver. (No Heritage)

1053 L/S, Dive # 14, Mackie

1059 Taking sample #1 from 25W/30S.

1108 Taking sample #2 from 25W/30S.

1113 L/B, R/S, Deconing, Heritage on site

1215 Decon complete.

1235 Mark radio/phone to tell us Wally wonts a sheet pile inspection.

1245 Lunch

1330 Back on site.

1345 Setting up dive station, marking sheet piles, making rope to help dive during inspection.

1410 Called Rob to let him know there is heavy Zebra mussel growth on the sheet piles. We would not be able to check the joints or probably find any hole and cracks smaller than 2".

1438 Diver in tyvek.

1450 L/S Dive #15, Schwinghammer.

1454 taking sample of the mussels.

1502 Starting inspection at 10W.

1534 20W, 1" growth, no holes found.

1546 30W, 1" growth, no holes found.

1558 40W, 1" growth.

1615 51W, 3/4" crack in sheet 2 1/2' long no visible leaking.

1618 Mark C. said moving barge 9/27/95 for diving maybe.

1623 63W, 1/2" x 10" crack, no leak.

1628 70W, heavier mussel growth 1 1/2" thick.

1635 78W, diver reports oil in water column.

1640 80W, diver reports oil in water column.

1948 90W, diver reports oil in water column.

1653 100W, diver reports oil in water column.

1658 110W, diver reports oil in water column.

1704 120W, diver reports oil in water column.

1706 126W, stop inspection, out umbilical.

1708 L/B, R/S, deconing.
** Wally on site 1640 **

1731 Called Mark to let him know we were moving the barge at 0700 tomorrow and would need electrical, water, and pump hoses moved.

Koppers Daily Log 09/26/95

1800 Rob called, Wally will be at the barge before 1900, will pass information to him off the dive inspection sheet. Barge movement 0700 tomorrow.

- Disconnecting all land connection;
  - electrical
  - water
  - pump hose
  - Hp air
  - make new grid system for 80' to 130'

1910 Off site

2010 Rob Harsh called to let me know that we would have to patch the two cracks we found this afternoon before we move.

- Called Al Francis, from Lakes and Rivers Contractors, to ask if we could use John knife switch for welding. Al said John was in Milwaukee, would contact him and get back to me.

2105 Al called back, he will bring the knife switch with him tomorrow.

2200 Having trouble with WP on the computer, quitting for night.

Koppers Daily Log, 09/27/95

1312 Diver give better location of crack.
1320 Pressure washing
1415 Pressure washing
1422 Cutting a 2"x 4" test patch to see if the sheet pile can be welded on.
1428 Air grinder in water.
1431 2"x 4" on site.
1448 Simon going to try to take photo of damage area.
1451 Welding
1658 Welder setting 105/155 30%
1712 Down 10% 105/155 20%
1521 Welder setting 105/155 35%, new rod
1534 Welder setting 105/155 45%.
1737 Grinding
1745 Welding
1810 L/B, R/S, deconing
1828 Diver undressed, clean up, set up for 139W
1845 Meeting with Mark and Rod;
- tomorrow work goals
- clean 139W & check sheet pile condition, if bad go to 141W and check it condition.
- We work for Koppers Not EPA, all information through Koppers to EPA.
- collect Zebra Mussels in bucket, try to keep them out of plant.

1930 Crew off site.
1938 Chuck departed meeting. (Bad day)

Koppers Daily Log, 09/28/95

0530 On site, start set up
0600 Diver dressing
0635 La Grange crane operator on site, basket in water.
0654 Helmet on diver
0658 L/S dive #18, Cleasby.
0704 In basket, at 139W
0706 Scrapping Zebra mussels
0708 Plant lost water pressure, no water
0714 Bucket on surface
0715 Grinder in water
0721 Diver takes sample of material from behind the sheet pile, hard and not flowing.
0729 Knuckle to the west has harden tar on it.
0732 Diver reports that at 6.5' off bottom there are 1/8" bubbles in the water column at 139W.
0744 Diver taking measurements, sheets to thin to weld.
0755 Moved to 141W, material is leaking out at -7', 1/8" bubbles.
0759 Grinding 141W
0806 Lower basket 2'
0809 Clean at 141W, taking measurements, L- 32.5", top 1/8", widest 1/2", bottom 1/8'. Metal thickness 1/16", oil released only when using grinder, material is like the drips off a candy apple.
0820 Moving diver to decon area to check comm wire.
0831 L/B, R/S, deconing.
0832 Fueling crane, then move to the east side of barge to inspect the east sheet piles.
0904 Crane in place
0919 L/S dive # 19, Mackie.
- Inspection start at 26E.
0931 30E, 1/2" growth, Z mussels 1" in size, diver reports light growth 0 to -5', then heavy Z mussels to bottom.
0955 40E
1018 52E, -7.25', 3/8" hole, clay behind hole.
1026 60E, heavier Z mussels 5' off the bottom.
1042 Abort dive, lost comms, at 68E.
1044 L/B, R/S, Deconing.
1234 Comm cable repaired.
1317 L/S dive #20, Cleasby.
1321 Started inspection at 70E
1343 80E, heavy Z mussel, about 1/4" rust that flakes off, 1 1/2" marine and Z mussel growth.
1358 90E
1419 100E
1431 110E
1446 120E
1449 Moving crane.
1456 Crane connecting to basket.
1505 130E
1516 140E, heavy Z mussel growth, heaviest growth -5' and deeper.

Koppers Daily Log, 09/28/95

1519 150E, new system, lower slowly with the crane, inspect one side and up the other.
1522 160E
1529 170E
1534 182E, out of umbilical
1544 L/B, R/S, deconing
1600 Meeting at Koppers main office, Wally is coming up with a bunch of changes. EMS, we need to get 3' sample tube.
1900 My turn, move barge, to be able to work on 155W, weld and back fill with hydraulic cement. Koppers will try to get the sample tubes.
2030 Back at hotel after get supplies for patching tomorrow.

Kopper Daily Log, 09/29/95

0530 On site
0700 Barge ready to move.
0915 Barge moved to 160W.
1020 Electrical power to barge
1115 Heritage has clear oil sheen, and installed oil boom to keep area clean, dressing diver.
1120 Spoke to Rob to let him know what our game plan is.
1151 L/S dive # 21, Mackie.
1152 Inspect, clean and measure.
1201 Collecting Z mussels in bucket.
1224 Pressure cleaning.
1316 Taking measurements.
1339 Trying to remove rock from east face side of crack, and try to bend the pulled out section back in.
1400 Working on bending section back so form will fit over, metal is solid.
1419 L/b, R/S, deconing
- Called Pat, asked him to find 3' long sample tubes, and epoxy to repair cracks.
1420 Going to see Mark
1600 Heading back to barge
- fix 155W
- inspect to west
- Off Sunday

Koppers Daily Log, 10/02/95

0530 On site
0054 Day brief, safety, and goals set. Sheet pile inspection from 190W to we run out of umbilical.
- Have to get Simon and Stacy to doctor for colds
- Try fax out time sheets in AM.
0650 La Grange operator on site, Heritage not on site, they have to clear oil sheen before we start sheet pile inspection.
- Gave Rick M. measurements for steel forms with J-bolts so we can patch the rest of 155W. Rick says their is another large crack around 190W.
0655 Heading to Koppers office to see if they have a doctor on call and to fax time sheets to EMS.
0700 Spoke to Dave G. on cell phone, will check fax machine and will fax time sheet at 0730.
0730 Sent out fax, Koppers does not have a doctor on call.
0753 Gave Dave G. LaGrange Medical Center phone # 352-0330 to see if he can set something up today for Simon and Stacy.
0800 Diver getting dressed
0847 Helmet on diver
0902 Checking for Helmet leaks, there is a leak, diver back to chair.
0904 Dave G. called, has everything set up at clinic, appointments at 0800 tomorrow.
0917 Helmet fixed
0918 Checking for leaks, L/S, dive # 23, Mackie.
0921 Starting sheet pile inspection at 190W
1040 Diver is using air in suit to do the inspection, has
1040 - used 700PSI, told him that he would either use the rope method or I would abort the dive and put someone else in.
1116 L/B, R/S, Deconing
1124 Out of tyvek suit, leaving hot area.
1134 Crew lunch I'm going to see Mark about silt boom.
1319 L/S, dive # 24, Cleasby.
1324 Positioning man basket
1328 Two of patches in place.
1400 Welder hot
1406 Welding first patch
1447 Welding third patch in place. (patch size 2"x2"x12")
1502 Lower the last plate patch.
1510 Tighten last patch in place, will cut bolts with Broco, then weld, will need two small plate. 2"x 4"
1552 Add Quick crete to fill form.
1609 Third bag in water, should be last.
- will need one more
1619 Patch completed
1622 L/B, R/S, deconing
1650 Talk to Mark about epoxy we will use tomorrow to try to fix 139W, 141W, and 51W.
1800 Off site

Koppers Daily Log, 10/03/95

0700 On site
- Simon and Stacy have 0800 medical appointment
- no electrical power Koppers blow a transformer
- Epoxy man will be on site between 10 and 11 AM

0810 Mark says epoxy man will be here about 1030

0820 Moving Bauor pipe to the east so we will be ready when Koppers gets the permit.

0907 Switched out Lakes and Rivers Knife switch for EMS knife switch.

0925 Sheen coming to the surface from 200E to 400W, about 600' to be dredge.

0957 Lost electrical, may have fried electrical panel.

1002 Simon and Stacy back on site. Both have URI and sinus infection. Medication cost $160.62 out of petty cash.

1029 Koppers electrical people on site to fix panel.

1044 Koppers main office, Tom McDonald, from SURE-SEAL epoxy. Will test epoxy on site.
- Viking suits sent out

1159 Crane back on site, epoxy seams to work.

1230 Helmet on diver

1236 L/S dive # 25, Mackie.

1247 Epoxy gum in water

1248 Epoxying 139W

1252 Nozzle plugged, replacing it.

1253 Gun back in water, epoxying 139W. Epoxy is working

1303 139W patched, diver checking work

1308 Position for repair on 141W

1311 Starting epoxy 141W

1330 141W patched

1335 Moving crane to epoxy 63W and 51W.

1428 Epoxying 51W

1512 141W, 139W, 63W, and 51W all patched.
Jeff Petrouski will arrive 10/04 at 1430

1530 Mark said we may not be able pump for a while.
- inspect rest of sheet pile

1700 Off site

Koppers Daily Log, 10/04/95

0700 On site
0820 Barge moored at 370W, Setting up dive station, Lakes and Rivers are pumping out stern of barge.
- Called Dave G. about Dennis phone call last night. Asked Dave the following;
  - send Broco torch and shout whip
  - send Broco repair parts
  - write memo about our conference call before we left about pay
    - Over time after 8 hr
    - Pay scale of people on job
    - time and half on Saturday
    - double time on Sunday
    - travel rate same as field rate

0905 Helmet on diver
0914 L/S, dive # 26, Schwinghammer.
0920 Started inspection on 375W
0930 397W, sheet pile meets with 4" gap at the top, 6" gap at water line, no leaks below surface.
0944 402W, top side crack 3 1/2' long by 1/8" to max of 3".
1035 Moving crane to new position
1128 540W inspection end, out of umbilical
1133 L/B, R/S, deconing diver
1150 lunch off site
1155 Meet with Mark, Lene and Karen from EPA. They wont two grab samples from spill area, I explain due to the location of the barge we could get them from 300W/80S. They wont cold tar in the sample, we'll do our best.
1302 Explain what the plan was to the guys
1313 Diver getting dressed
1343 Helmet on diver
1347 L/S dive # 27, Cleasby.
1400 315W/115S taking sample, diver reports he is standing in one foot of cold tar.
1411 L/B, R/S, deconing
1423 diver getting out of suit
1444 Getting Heritage to move barge to 540W
1449 Heritage just got kicked off MWRD pier.
1520 Started to move barge with two of Heritage boats
1530 Barge moored at 530W, started clean up, new gangway on barge.
1615 Gave Rob and update
1627 Meeting in Office
- will have to wear personnel air sampler tomorrow
- finish sheet pile inspection

1800 Off site
** Jeff Petrouski arrived at 1445

Koppers Daily Log, 10/05/95

0700 On site
0710 Safety brief
0715 Air monitor give to six people to wear today
- Rob said no work tomorrow
- Mike from Koppers is showing the guy how to wear the air monitors.

0740 Crane in position
0742 Diver getting dressed
0820 Helmet on diver
0828 L/S dive # 28, Schwinghammer.
0830 Started inspection at 540W
0840 Shifted to crane basket to do the inspection.
0918 Three single wide barges have just made contact with our barge, dive is in basket at top of sheet piles until barges pass. (Lorna Hackworth)
0925 Resumed work
1005 Inspection complete 692W
1009 L/B, R/S, deconing
1045 Talk with Mark and Rob, should be able to pump on Sunday, will send crew home except for Jeff P. and myself. Simon will take all paper work to EMS office on Friday. Dave G. will arrange flights and someone to pick up the guys at the airport and get them to the field office to get their trucks.
1200 Off site
1220 Jeff M. told me that the truck lost two belts and lost the brakes.
1230 Gave Simon the paperwork for Dave G.
1300 Jeff and Chuck checked out the truck, alternator bearings frozen, two belts broke, vacuum pump wont work due to the broke belts.
1530 Have parts on order, will pick them up at noon tomorrow.
1600 Back at the hotel.

Koppers Daily Log, 10/06/95

0730 On site, check out barge.
0830 Mark C. wonts the barge moved to the east end to start dredging on Sunday. Call Lakes and Rivers to get the 0830 crane operator, will not be on site till 1000.
1030 Crane operator on site.
1047 Moving barge from 540W to 200E.
1130 Barge is at 190E, gangway, mooring lines secured. Called Koppers to let them know we will need electrical power and water run to the east end.
1145 At office talking to Mark.
1155 Mark needs a list of all items that we use during deconing and diving.
1330 Left Koppers to pick up parts for the truck.
1400 Started work on the truck only to find out we needed metric tools, went to Builder Square and got open end/box wrenches and 3/8" socket set.
1630 Truck back on the road, rained while we were replacing parts. DONE FOR THE DAY!!!

Koppers Daily Log, 10/07/95

- Worked six hours typing daily logs
- Mark C. called and said they would not be ready till Monday.
- Called Pat so he could call the guys. I don't have their home phone numbers.

Koppers Daily Log, 10/08/95

Crew arrived at hotel 2100
Knute Brekke arrived.

Koppers Daily Log, 10/09/95

0530 On site, setting up dive station, barge turned parallel to sheet piles.
0653 Mark just told me that we would not be able to turn the barge until Wednesday. We are running the Bauor pipe to the East end to start dredging now. Koppers has been call about moving electrical power and water.
- HP air bank has a broke line, switching to other bank.
- Simon is getting the rigging ready for the second grid system.
- Dovovan Robins E & E Rep.
0727 Electrical power to barge for Flygt pump may take two hours.
0815 Mark held on site safety review (:45), sign in every morning.
0858 Electrical power to barge, checking pump rotation.
1004 Bauor pipe line being connected, end fitting have to be switched.
1007 Diver in suit and putting on gloves.
1019 Helmet on diver
1022 In water checking for leaks.
1024 Leak between brass exhaust and helmet, helmet switched out. Helmet was leaked tested last Thursday before everyone left.
1040 Testing second helmet, no leaks.
1045 Putting weights, and bail out on diver.
1049 Putting Vaseline on helmet
1051 In water leak check
1052 L/S, dive #28, Cleasby, setting up east grid.
1058 East leg S/E screw anchor
1101 Moving out to south end of east leg.
1107 Installing south end of east leg.
1116 Installing north end of west leg.
1120 Moving south to install south end of west leg.
1128 Taking a strain on west leg.
1137 Grid installed, pry bar to put in screw anchor attached to west leg.
1158 Pump Hot
1201 Blow hose between Sykes pump and Koppers pipe, abort dive.
1205 L/B, R/S, deconing
1212 Diver leaving hot area.
1223 lunch
1316 Diver getting dressed, Mackie.
1346 Diver in decon area getting dressed.
1400 Leak check on chair
1402 L/S, dive # 30, Mackie, on bottom moving out to dredge head.
1407 Waiting for Koppers man to open valve :04 so far.
1409 Pump hot
1413 Diver reports he can see material being pulled passed face plate, 2' visible.

Koppers Daily Log, 10/09/05 cont.

1503 Diver OK, 1/8" bubble of material, 6" of silt
1528 La Grange crane set container box on sheet pile and bank, after dive will move to barge.
1532 Blow new 10' hard suction hose, (end fitting)
1538 Mark radio, secure pumping for the day
- I think Koppers were switching frack tanks and restricted the flow.
- Putting container box on barge
1410 Meeting with Mark and Rob, OK to start pumping tomorrow at 6:45.
1703 Frank and Jeff P. are fixing 10' hard suction hose.
1723 Off site.

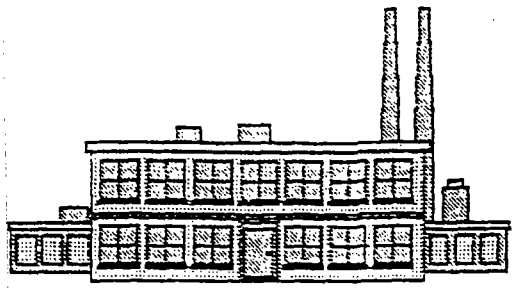
Koppers Daily Log, 10/10/95 cont.

1515 Pump cold.
1522 Removing S end of E leg.
1528 Removing S end of W leg.
1531 Removing N end of W leg.
1534 Removing N end of W leg.
1540 L/B, R/S, deconing.
1544 Helmet off.
1615 Safety meeting, tomorrow and there after will be held at 0700.
1630 Moving barge to 10W.
1710 Barge moored at 10W.
1730 Connecting pipe line to Koppers fitting.
1830 Off site.

Koppers Daily Log, 10/11/95

0526 Sign in.
0530 On site at barge.
0540 Radio guard house to get air banks and electrical panel moved to new location at 10W.
0656 Safety meeting, dredge to center of channel, then to the east.
0705 Talk to Rick M. about moving the air banks and electrical panel, wont start dressing diver till they are moved.
0720 Forklift is moving air banks.
0728 Electrical panel moved, dressing diver.
0756 Diver in decon area.
0801 Helmet on diver.
0804 Diver in water, checking for leaks
0806 L/S, dive # 34, Cleasby.
0816 Pump being swung in place by crane.
0826 Pump hot
0831 Everything works so far.
0838 2" to 4" of light silt then gravel.
0914 60'S/20' to 30,W
0950 70'S/20' to 30'W
1005 Pump cold, added 20' section of Bauor hard pipe on deck.
1010 Pump hot.
1045 Bolt got stuck in Sykes pump impeller, abort dive, decon crew getting dressed.
1054 L/B, R/S, deconning.
1103 Dive getting out of Viking suit, pump had a 5/8" bolt stopping the impeller, reassembling Sykes pump.
1125 Lunch
1215 Back from lunch, dressing diver.
1256 Diver in decon area.
1303 Diver in water, checking for leaks.
1305 L/S, dive # 35, Brekke.
1309 Pump hot, starting from 75S/20' to 30'W
1329 80'S
1334 Pump cold, adding 20' section of hard pipe and 10' hard rubber section over the side.
1341 section added, pump hot.
** (Late entry, Mark C. brought the results of air monitoring)
1415 90'S
1432 100'S
1453 Dive reports, oil bubbles.
1530 Pump cold, extending the grid 20' more to the South.
1542 E leg extended south.
1557 W leg extended south, installing screw anchor.
1605 Pump hot
1611 Diver at 114S, reports cold tar on bottom.
1620 120'S
1637 Pumping water.
1642 L/B, R/S, deconning.

FAX COVER SHEET



KOPPERS INDUSTRIES, INC.
3900 S. LARAMIE AVENUE
CICERO, IL 60650

TELEPHONE (708) 656-5900
FAX (708) 656-6079

Date:	9-29-95

Company Name:	Wildman, Harrold, Allen + Dixon
Contact Name:	Joe Madonia / Jim Morrin
Location:	Chicago
Fax Number:	312-201-2555

Sender:	Mark Cilley
Description:	Analytical

Number of pages (including cover sheet): ?
If there are any problems with this transmission, please call the sender immediately at (708) 656-5900

ATTACHMENT 1
PERFORMANCE BEFORE REGENERATIVE THERMAL OXIDIZERS

Laboratory Data Sheets
for Sampling Period
February 21-March 1, 1994

West Sewer 1A

USER CHARGE CERTIFIED SAMPLING REPORTING STATEMENT ED 9.20

1. Name: Koppers Industries, Inc.
2. Address: 3900 S. Laramie Ave. / Chicago, IL 60650
3. Federal Tax Number:
4. Outlet Number:
5. Primary Device: 3
6. Sampling Data: Samples Collected By: JH,MM,DC,RC,MW,GJ

Sample Date and Day of Week	6b. Sample Times and Duration	6c. Metered Intake	6d. Metered Discharge	6e. Date Received	6f. Date Analyzed BOD	SS	6g. BOD--mg/L Dilution/Result
Tues-Wed 2/22-23/94	from09:15 AM to 09:45 AM	615,914	547,900	02/23	beg 02/23 end 02/28	02/23	12/ 8130
Wed-Thurs 2/23-24/94	from09:45 AM to 10:50 AM	615,914	527,000	02/24	beg 02/24 end 03/01	02/24	12/ 6960
Thurs-Fri 2/24-25/94	from10:50 AM to 12:40 PM	615,914	591,500	02/25	beg 02/25 end 03/02	02/25	16/ 6720
Fri-Sat 2/25-26/94	from12:40 PM to 11:30 AM	615,914	535,300	02/26	beg 02/26 end 03/03	02/26	16/ 6250
Sat-Sun 2/26-27/94	from11:30 AM to 10:30 AM	615,914	427,600	02/27	beg 02/27 end 03/04	02/27	12/ 8350
Sun-Mon 2/27-28/94	from10:30 AM to 11:00 AM	615,914	445,400	02/28	beg 02/28 end 03/05	02/28	12/ 8400
Mon-Tues 2/28-3/1/94	from11:00 AM to 11:00 AM	615,914	456,600	03/01	beg 03/01 end 03/06	03/01	12/ 8260
7. Avg. flows (for intake & discharge) & flow-weighted analytical data for BOD & SS.		615,914	504,471	Samples taken every 11,000 Samples kept cool by ice			7512

8. BOD Seed Source: MSD Treatment Plant West - Southwest (Stickney)
9. Exceptions: Incoming water meters read on first and last day of test due to confined-Space entry
10. Name of Analyst: J.Stellwag
11. Analyst's Supervisor: Gary Wigge

Certification. The undersigned has examined this statement and its supporting documentation, an certifies that the methods used in the sampling analyses reported thereon were c in accordance with the latest edition of Standard Methods for the Examination of and Wastewater, and that the information contained theron to the best of his/her knowledge is true, correct, and complete.

User/Company Name: Koppers Industries, Inc. Date:
Signature of Officer/Owner Telephone:
Officer's Name and Title:
Consultant or Lab. Name: Environmental Monitoring & Technologies Date: 03/15/94
Signature of Officer/Owner Telephone: 708-967-6666
Officer's Name and Title: Keith Gray, Manager

T. 3 FORM MUST BE COMPLETED AND ATTACHED TO OCUMENTATION WITH THE USER CHARGE ANNUAL CERTIFIED S

FLOW-WEIGHTED CALCULATIONS (continued)

Date	Flow (gals)	BOD (mg/L)	SS (mg/L)	BOD (lbs)	SS (lbs)
2/22-23/94	547900	8130	180	37149.92	822.51
2/23-24/94	527000	6960	180	30590.45	791.13
2/24-25/94	591500	6720	194	33150.50	957.02
2/25-26/94	535300	6250	128	27902.51	571.44
2/26-27/94	427600	8350	164	29777.64	584.85
2/27-28/94	445400	8400	150	31202.94	557.20
2/28-3/1/94	456600	8260	236	31454.44	898.70
	3531300	53070.00	1232.00	221228.41	5182.85

Arithmetic Averages..... BOD (mg/L) 7581 SS(mg/L) 176

Flow-Weighted Averages..... BOD (mg/L) 7512 SS(mg/L) 176

ENVIRONMENTAL
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8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
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LABORATORY REPORT

92565

Koppers Industries, Inc.
3900 S. Laramie Ave.
Cicero, IL 60650

Report Date: 3/10/94
Sample Received: As Listed

Sample Description: 24 Hour Flow Proportion Composite - Outfall - West

Date	Sample No.:	BOD	Total Suspended Solids
2/22-23	74238	8130	180
2/23-24	74323	6960	180
2/24-25	74434	6720	194
2/25-26	74482	6250	128
2/26-27	74518	8350	164
2/27-28	74563	8400	150
2/28-3/1	74666	8620	236

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 17th Edition.

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LABORATORY REPORT

120158

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: As Listed

Sample Description: Wastewater Grab - West

Date	3/27	3/28	3/29	3/30	3/31	4/1	4/2
Sample No.	14069	14124	14225	14355	14529	14650	14703
Total Cyanide	0.10	0.12	0.14	0.19	0.13	0.18	0.12
Fats, Oil & Grease	137	142	55	132	249	420	65
pH (units)	6.05	5.99	5.82	5.77	5.73	5.84	5.97

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed without the author.

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LABORATORY REPORT

120157

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: As Listed

Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall

Date	3/27-28	3/28-29	3/29-30	3/30-31	3/31-4/1	4/1-2
Sample No.	14123	14224	14354	14528	14649	14701
Closed Cup Flash Point	N.M.	N.M.	N.M.	>180°F	>180°F	>180°F
Hexavalent Chromium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.02	<0.02	<0.02	<0.20	<0.20	<0.20
Chromium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	3.60	1.10	1.10	1.10	1.00	0.88
Lead	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Mercury	0.0005	0.0006	<0.0003	<0.0003	<0.0003	<0.0003
Nickel	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Silver	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Zinc	0.41	0.15	<0.50	0.14	0.13	0.12

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

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LABORATORY REPORT

120493

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/27/95

Sample Description: Wastewater three grab Composite West Outfall (3/27/95)
Sample No.: 14069

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	4.9	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	4.7	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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LABORATORY REPORT

120493

Koppers Industries, Inc.
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Report Date: 4/13/95
Sample Received: 3/27/95

Sample Description: Wastewater three grab Composite West Outfall (3/27/95)
Sample No.: 14069

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	5.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	7.6	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

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LABORATORY REPORT

120492

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater three grab Composite West Outfall (3/27-28/95)
Sample No.: 14124

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	7.9	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	2.5	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	3.3	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. [illegible]	[illegible]	[illegible]	[illegible]	5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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LABORATORY REPORT

120492

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater three grab Composite West Outfall (3/27-28/95)
Sample No.: 14124

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethane	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	4.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	5.4	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analysen performed using EPA approved Method No. 624 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed [illegible]

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LABORATORY REPORT

120276-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95)
West Outfall

Sample No.: 14122

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	182	<0.5	0.5	10
2. Acenaphthene	21	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	22	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	<2.5	<2.5	2.5	10
11. Phenathrene	29	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120276-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95)
West Outfall

Sample No.: 14122

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	[illegible]
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	[illegible]
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	[illegible]
4. 1,4-Dichlorobenzene	<0.4	<0.4	0.4	[illegible]
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	[illegible]
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	[illegible]
7. Hexachloroethane	<0.7	<0.7	0.7	[illegible]
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	[illegible]
9. Nitrobenzene	<1.8	<1.8	1.8	[illegible]
10. Isophorone	<0.3	<0.3	0.3	[illegible]
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	[illegible]
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	[illegible]
13. Hexachlorobutadiene	<0.5	<0.5	0.5	[illegible]
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	[illegible]
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	[illegible]
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	[illegible]
17. Acenaphthylene	<0.3	<0.3	0.3	[illegible]
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	[illegible]
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	[illegible]
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	[illegible]
21. Diphenylhydrazine	<1.6	<1.6	1.6	[illegible]
22. 4-Bromophenyl phenyl ether	[illegible]	[illegible]	[illegible]	[illegible]

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Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120276-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95)
West Outfall

Sample No.: 14122

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

ENVIRONMENTAL
MONITORING AND
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8100 North Austin Avenue
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FAX: 708/967-6735

LABORATORY REPORT

12027-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95
West Outfall

Sample No.: 14122

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

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ENVIRONMENTAL
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8100 North Austin Avenue
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FAX: 708/967-6735

LABORATORY REPORT

120276

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95)
West Outfall

Sample No.: 14122

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<1.5	<0.08	1.5	7.5
PCB 1232	<1.5	<0.08	1.5	7.5
PCB 1016 (1242)	<1.5	<0.08	1.5	7.5
PCB 1248	<1.5	<0.08	1.5	7.5
PCB 1254	<0.5	<0.08	0.5	2.5
PCB 1260	<0.5	<0.08	0.5	2.5
(Total PCB)	<1.5	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

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ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120276-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95
West Outfall

Sample No.: 14122

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.2	<0.02	0.2	1.0
2. ß-BHC	<0.2	<0.03	0.2	1.0
3. Y-BHC (Lindane)	<0.2	<0.03	0.2	1.0
4. δ-BHC	<0.5	<0.03	0.5	2.5
5. Heptachlor	<0.5	<0.04	0.5	1.0
6. Aldrin	<0.5	<0.03	0.5	1.0
7. Heptachlor epoxide	<0.5	<0.02	0.5	1.0
8. Endosulfan I	<0.5	<0.03	0.5	1.0
9. Dieldrin	<0.5	<0.03	0.5	1.0
10. 4,4'-DDE	<0.5	<0.03	0.5	1.0
11. Endrin	<0.5	<0.10	0.5	1.0
12. Endosulfan II	<0.5	<0.05	0.5	1.0
13. Endrin aldehyde	<0.5	<0.15	0.5	1.0
14. 4,4'-DDD	<0.5	<0.04	0.5	1.0
15. Endosulfan sulfate	<0.5	<0.10	0.5	1.0
16. 4,4'-DDT	<0.5	<0.16	0.5	1.0
17. Methoxyclor	<0.5	<0.10	0.5	1.0
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.5	<0.26	0.5	2.5
21. Toxaphene	<1.0	<0.50	1.0	5.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

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ENVIRONMENTAL
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LABORATORY REPORT

120495

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/29/95

Sample Description: Wastewater three grab Composite West Outfall (3/28-29/95
Sample No.: 14225

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	3.5	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	0.9	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	3.1	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	[illegible]	[illegible]	[illegible]	[illegible]
23. 1,1,2-Trichloroethane	[illegible]	[illegible]	[illegible]	[illegible]

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LABORATORY REPORT

120495

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/29/95

Sample Description: Wastewater three grab Composite West Outfall (3/28-29/95
Sample No.: 14225

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	3.8	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	4.	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

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LABORATORY REPORT

120275-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/16/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	91.5	<0.5	0.5	10
2. Acenaphthene	<0.5	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	14.5	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	<2.5	<2.5	2.5	10
11. Phenathrene	7.2	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

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ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

120275-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1,4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<1420	<9.5	1420	3000
15. 2-Chloronaphthalene	<45	<0.3	45	1500
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ehter	<0.6	<0.6	0.6	10

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LABORATORY REPORT

120275-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

120275-C

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<250	<1.7	250	1500
4. p-Chloro-m-cresol	<330	<2.2	330	1500
5. 2,4,6-Trichlorophenol	<330	<2.2	330	1500
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

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LABORATORY REPORT

120275

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.7	<0.08	0.7	3.5
PCB 1232	<0.7	<0.08	0.7	3.5
PCB 1016 (1242)	<0.7	<0.08	0.7	3.5
PCB 1248	<0.7	<0.08	0.7	3.5
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.7	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

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LABORATORY REPORT

120275-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.2	<0.02	0.2	1.0
2. ß-BHC	<0.2	<0.03	0.2	1.0
3. Y-BHC (Lindane)	<0.2	<0.03	0.2	1.0
4. δ-BHC	<0.2	<0.03	0.2	1.0
5. Heptachlor	<0.05	<0.04	0.05	1.0
6. Aldrin	<0.2	<0.03	0.2	1.0
7. Heptachlor epoxide	<0.04	<0.02	0.04	0.1
8. Endosulfan I	<0.03	<0.03	0.03	0.1
9. Dieldrin	<0.03	<0.03	0.03	0.1
10. 4,4'-DDE	<0.03	<0.03	0.03	0.1
11. Endrin	<0.10	<0.10	0.10	0.1
12. Endosulfan II	<0.05	<0.05	0.05	0.1
13. Endrin aldehyde	<0.15	<0.15	0.15	0.1
14. 4,4'-DDD	<0.04	<0.04	0.04	0.1
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.1
16. 4,4'-DDT	<0.16	<0.16	0.16	0.2
17. Methoxyclor	<0.10	<0.10	0.1	0.2
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.26	<0.26	0.26	0.5
21. Toxaphene	<0.50	<0.50	0.50	1.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

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ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120844

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/19/95
Sample Received: 3/30/95

Sample Description: Wastewater Three Grab Composite West Outfall (3/29-30/95)
Sample No.: 14355

Compounds	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL)	Regulatory Limit
1. Vinyl Chloride	<39	<10	10	77
2. Chloroethane	<44	<10	10	87
3. Methylene chloride	<14	<10	10	28
4. 1,1-dichloroethane	<8	<10	10	17
5. Chloroform	<44	<10	10	88
6. 1,2-dichloroethane	<71	<10	10	142
7. Trans-1,2-dichloroethane	<10	<10	10	20
8. 1,1,1-trichloroethane	<8	<10	10	17
9. Carbon tetrachloride	<56	<10	10	112
10. 1,2-dichloropropane	<77	<10	10	155
11. Trichloroethene	<10	<10	10	21
12. 1,1,2-trichloroethane	<12	<10	10	25
13. Benzene	<22	<10	10	45
14. Tetrachloroethene	<20	<10	10	41
15. Toluene	<11	<10	10	22
16. Chlorobenzene	<56	<10	10	112
17. Ethylbenzene	<56	<10	10	112
18. 1,1-dichloroethylene	<8	<10	10	17
19. Methyl chloride	<43	<10	10	87
20. 1,3-dichlorobenzene	<56	<10	10	112
21. 1,4-dichlorobenzene	<56	<10	10	112
22. 1,2-dichlorobenzene	<77	<10	10	155
23. 1,3-dichloropropylene	<77	<10	10	155
24. Hexachloroethane	<77	<10	10	[illegible]

ENVIRONMENTAL
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LABORATORY REPORT

120844

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/19/95
Sample Received: 3/30/95

Sample Description: Wastewater Three Grab Composite West Outfall (3/29-30/95)
Sample No.: 14355

Compounds	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL)	Regulatory Limit
25. Nitrobenzene	<883	<10	10	1767
26. 2-nitrophenol	<25	<10	10	51
27. 4-nitrophenol	<64	<10	10	128
28. 1,2,4-trichlorobenzene	<77	<10	10	155
29. Hexachlorobutadiene	<56	<10	10	112
30. 4,6-dinitro-o-cresol	<31	<10	10	62
31. Hexachlorobenzene	<77	<10	10	155
32. Total Cyanide (ppm)	<166	<10	10	332
33. Total Lead (ppm)	<126	<10	10	253
34. Total Zinc (ppm)	<415	<10	10	830

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 17th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

ENVIRONMENTAL
MONITORING AND
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8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120273-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/16/95
Sample Received: 3/30/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	<0.5	<0.5	0.5	10
2. Acenaphthene	<330	<0.5	330	1500
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	157.	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	7.8	<2.5	2.5	10
11. Phenathrene	7.	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
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FAX: 708/967-6735

LABORATORY REPORT

120273-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/30/95

Sample Description: Wastwater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1,4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<142	<9.5	142	3000
15. 2-Chloronaphthalene	<45	<0.3	45	1500
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ehter	<0.6	<0.6	0.6	10

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LABORATORY REPORT

120273-B

Koppers Company. Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/30/95

Sample Description: Wastwater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

120273-C

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/30/95

Sample Description: Wastwater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Compound Acid Extractables	Concentration Found In Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<250	<1.7	250	1500
4. p-Chloro-m-cresol	<330	<2.2	330	1500
5. 2,4,6-Trichlorophenol	<330	<2.2	330	1500
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

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LABORATORY REPORT

120273

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/30/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<1.5	<0.08	1.5	7.5
PCB 1232	<1.5	<0.08	1.5	7.5
PCB 1016 (1242)	<1.5	<0.08	1.5	7.5
PCB 1248	<1.5	<0.08	1.5	7.5
PCB 1254	<0.2	<0.08	0.2	1.0
PCB 1260	<0.2	<0.08	0.2	1.0
(Total PCB)	<1.5	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120273-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero. IL 60650

Report Date: 4/10/95
Sample Received: 3/30/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.05
2. ß-BHC	<0.03	<0.03	0.03	0.05
3. Y-BHC (Lindane)	<0.06	<0.03	0.06	0.05
4. δ-BHC	<0.05	<0.03	0.05	0.05
5. Heptachlor	<0.08	<0.04	0.08	0.05
6. Aldrin	<0.03	<0.03	0.03	0.05
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.1
8. Endosulfan I	<0.03	<0.03	0.03	0.1
9. Dieldrin	<0.03	<0.03	0.03	0.1
10. 4,4'-DDE	<0.03	<0.03	0.03	0.1
11. Endrin	<0.10	<0.10	0.10	0.1
12. Endosulfan II	<0.05	<0.05	0.05	0.1
13. Endrin aldehyde	<0.15	<0.15	0.15	0.1
14. 4,4'-DDD	<0.04	<0.04	0.04	0.1
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.1
16. 4,4'-DDT	<0.16	<0.16	0.16	0.2
17. Methoxyclor	<0.10	<0.10	0.1	0.2
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.26	<0.26	0.26	0.5
21. Toxaphene	<0.50	<0.50	0.50	1.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

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LABORATORY REPORT

120494

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/31/95

Sample Description: Wastewater three grab Composite West Outfall (3/30-31/95
Sample No.: 14529

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	4.4	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	1.4	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. [illegible]	[illegible]	[illegible]	[illegible]	5
23. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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LABORATORY REPORT

120494

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/31/95

Sample Description: Wastewater three grab Composite West Outfall (3/30-31/95
Sample No.: 14529

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	0.9	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	2.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

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FAX: 708/967-6735

LABORATORY REPORT

120274-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/16/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	54.	<0.5	0.5	10
2. Acenaphthene	<0.5	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	3.	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	0.75	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	3.8	<2.5	2.5	10
11. Phenathrene	4.7	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

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ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120274-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ehter	<0.6	<0.6	0.6	10

ENVIRONMENTAL
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LABORATORY REPORT

120274-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	 Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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FAX: 708/967-6735

LABORATORY REPORT

120274-C

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

Compound Acid Extractables	Concentration Found In Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

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FAX: 708/967-6735

LABORATORY REPORT

120274

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.92	<0.08	0.92	9.0
PCB 1232	<0.92	<0.08	0.92	9.0
PCB 1016 (1242)	<0.92	<0.08	0.92	9.0
PCB 1248	<0.92	<0.08	0.92	9.0
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.92	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120274-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.05
2. ß-BHC	<0.03	<0.03	0.03	0.05
3. Y-BHC (Lindane)	<0.03	<0.03	0.03	0.05
4. δ-BHC	<0.03	<0.03	0.03	0.05
5. Heptachlor	<0.04	<0.04	0.04	0.05
6. Aldrin	<0.03	<0.03	0.03	0.05
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.1
8. Endosulfan I	<0.03	<0.03	0.03	0.1
9. Dieldrin	<0.03	<0.03	0.03	0.1
10. 4,4'-DDE	<0.03	<0.03	0.03	0.1
11. Endrin	<0.10	<0.10	0.10	0.1
12. Endosulfan II	<0.05	<0.05	0.05	0.1
13. Endrin aldehyde	<0.15	<0.15	0.15	0.1
14. 4,4'-DDD	<0.04	<0.04	0.04	0.1
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.1
16. 4,4'-DDT	<0.16	<0.16	0.16	0.2
17. Methoxyclor	<0.10	<0.10	0.1	0.2
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.26	<0.26	0.26	0.5
21. Toxaphene	<0.50	<0.50	0.50	1.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

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ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

120491

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/1/95

Sample Description: Wastewater three grab Composite West Outfall (3/31-4/1)
Sample No.: 14650

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	3.8	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	1.4	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. [illegible]	[illegible]	[illegible]	[illegible]	5
23. [illegible]	[illegible]	[illegible]	[illegible]	5
24. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

120491

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/1/95

Sample Description: Wastewater three grab Composite West Outfall (3/31-4/1)
Sample No.: 14650

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	1.2	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

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ENVIRONMENTAL
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8100 North Austin Avenue
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LABORATORY REPORT

120272-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/11/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95)
West Outfall

Sample No.: 14648

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	121	<0.5	0.5	10
2. Acenaphthene	<0.5	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	8.7	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	4.2	<2.5	2.5	10
11. Phenathrene	5.6	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

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LABORATORY REPORT

120272-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/11/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95
West Outfall

Sample No.: 14648

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Paul E. Zeller

ENVIRONMENTAL
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8100 North Austin Avenue
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LABORATORY REPORT

120272-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/11/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95
West Outfall

Sample No.: 14648

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	[illegible]
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	[illegible]
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	[illegible]
4. 1,4-Dichlorobenzene	<0.4	<0.4	0.4	[illegible]
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	[illegible]
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	[illegible]
7. Hexachloroethane	<0.7	<0.7	0.7	[illegible]
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	[illegible]
9. Nitrobenzene	<1.8	<1.8	1.8	[illegible]
10. Isophorone	<0.3	<0.3	0.3	[illegible]
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	[illegible]
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	[illegible]
13. Hexachlorobutadiene	<0.5	<0.5	0.5	[illegible]
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	[illegible]
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	[illegible]
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	[illegible]
17. Acenaphthylene	<0.3	<0.3	0.3	[illegible]
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	[illegible]
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	[illegible]
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	[illegible]
21. Diphenylhydrazine	<1.6	<1.6	1.6	[illegible]
22. 4-Bromophenyl phenyl ether	[illegible]	[illegible]	[illegible]	[illegible]

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120272-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/11/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95)
West Outfall

Sample No.: 14648

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leo F. Zeller

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120272

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95
West Outfall

Sample No.: 14648

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<1.5	<0.08	1.5	7.5
PCB 1232	<1.5	<0.08	1.5	7.5
PCB 1016 (1242)	<1.5	<0.08	1.5	7.5
PCB 1248	<1.5	<0.08	1.5	7.5
PCB 1254	<0.2	<0.08	0.2	1.0
PCB 1260	<0.2	<0.08	0.2	1.0
(Total PCB)	<1.5	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

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Leo E. Zikes

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120272-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95
West Outfall

Sample No.: 14648

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.08	<0.02	0.08	0.4
2. ß-BHC	<0.08	<0.03	0.08	0.4
3. Y-BHC (Lindane)	<0.08	<0.03	0.08	1.5
4. δ-BHC	<0.08	<0.03	0.08	1.5
5. Heptachlor	<0.2	<0.04	0.2	1.0
6. Aldrin	<0.2	<0.03	0.2	1.0
7. Heptachlor epoxide	<0.2	<0.02	0.2	1.0
8. Endosulfan I	<0.2	<0.03	0.2	1.0
9. Dieldrin	<0.2	<0.03	0.2	1.0
10. 4,4'-DDE	<0.2	<0.03	0.2	1.0
11. Endrin	<0.4	<0.10	0.4	2.0
12. Endosulfan II	<0.2	<0.05	0.2	1.0
13. Endrin aldehyde	<0.2	<0.15	0.2	1.0
14. 4,4'-DDD	<0.08	<0.04	0.08	0.5
15. Endosulfan sulfate	<0.2	<0.10	0.2	1.0
16. 4,4'-DDT	<0.2	<0.16	0.2	1.0
17. Methoxyclor	<0.2	<0.10	0.2	1.0
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.5	<0.26	0.5	2.5
21. Toxaphene	<1.0	<0.50	1.0	5.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

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ENVIRONMENTAL
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TECHNOLOGIES, INC.

8100 North Austin Avenue
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FAX: 708/967-6735

LABORATORY REPORT

120490

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater three grab sample Composite West Outfall (4.1-1
Sample No.: 14703

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	2.4	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	2.0	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. [illegible]	[illegible]	[illegible]	[illegible]	5
23. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ENVIRONMENTAL
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8100 North Austin Avenue
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LABORATORY REPORT

120490

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater three grab sample Composite West Outfall (4/1-1
Sample No.: 14703

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	2.8	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

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LABORATORY REPORT

120271-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	752	<0.5	0.5	10
2. Acenaphthene	<0.5	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	<0.2	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	<2.5	<2.5	2.5	10
11. Phenathrene	<0.2	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

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LABORATORY REPORT

120271-2

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1,4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	10
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Page 2

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120271-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120271-D

Koppers Industries. Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95) West Outfall

Sample No.: 14701

Compound Acid Extractables	Concentration Found In Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Lori E. Zilen

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120271

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<1.5	<0.08	1.5	7.5
PCB 1232	<1.5	<0.08	1.5	7.5
PCB 1016 (1242)	<1.5	<0.08	1.5	7.5
PCB 1248	<1.5	<0.08	1.5	7.5
PCB 1254	<0.2	<0.08	0.2	1.0
PCB 1260	<0.2	<0.08	0.2	1.0
(Total PCB)	<1.5	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

P. C 2.1.1

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120271-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.08	<0.02	0.08	0.05
2. ß-BHC	<0.03	<0.03	0.03	0.05
3. Y-BHC (Lindane)	<0.1	<0.03	0.1	0.5
4. δ-BHC	0.6	<0.03	0.6	0.05
5. Heptachlor	<0.2	<0.04	0.2	0.05
6. Aldrin	<0.2	<0.03	0.2	0.05
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.1
8. Endosulfan I	<0.05	<0.03	0.05	0.1
9. Dieldrin	<0.2	<0.03	0.2	0.1
10. 4,4'-DDE	<0.2	<0.03	0.2	0.1
11. Endrin	<0.4	<0.10	0.4	0.1
12. Endosulfan II	<0.1	<0.05	0.1	0.1
13. Endrin aldehyde	<0.2	<0.15	0.2	0.1
14. 4,4'-DDD	<0.08	<0.04	0.08	0.1
15. Endosulfan sulfate	<0.2	<0.10	0.2	0.1
16. 4,4'-DDT	<0.2	<0.16	0.2	0.2
17. Methoxyclor	<0.2	<0.10	0.21	0.2
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.5	<0.26	0.5	2.5
21. Toxaphene	<1.0	<0.50	1.0	5.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Page 2 of 2

Client Koppers Date Started: 3/27/95 Date Finished 4-3-95

Date & Time	Initials	Effluent Meter Theis 3" Parshall	ACL. RDL.	Effluent Meter	ACL. RDL.	Effluent Meter	ACL. RDL.	Effluent Meter	ACL. RDL.	Effluent Meter	ACL. RDL.	Total Effluent (Gal)
3/27 12:45	JR	7922739 (00)	.96 .947									
3/28 1:45	JR YA	678,700 7929926 (00)	1.29 1.278									698,700
3/29 1:45	JR	535,300 7935079 (00)	.70 .711									535,300
3/30 1:00	JR	413,000 7939209 (00)	.77 .776									413,000
3/31 12:45	JR	452,900 7943730 (00)	.78 .774									452,900
4/1 1:40	SI	508,300 7948821 (00)	.72 .727									508,300
4/2 1:30	SI	430,500 7953216 (00)	1.01 1.015									430,500
4/3 1:30	RC MM	1,361,200 7957488 (00)	1.00 1.024									1,361,200

* Incomming Meters on Seperate Sheet

Incoming Meter Flow Worksheet

Client Koppers Date Start 3/27/95 Date Finished 4-3-95

Date & Time	Initials	Incoming Meter # Tar High CF ( ) Gal	Incoming Meter # Tar Low CF ( ) Gal	Incoming Meter # PQ2 CF ( ) Gal	Incoming Meter # PA2 CF ( ) Gal	Incoming Meter # FM CF ( ) Gal	Incoming Meter # CF ( ) Gal	Incoming Meter # CF ( ) Gal	Total Incoming (Gal)	Total Out (Gal) *
3/27 12:45	VR	* 580906 (00)	192013 (0)	0	207087 (00)	1801 (000)				
3/28 1:45	JR									
3/29 1:45	JR									
3/30	JR									
3/31	JR									
4/1	SI									
4/2	SI									
4/3	RC MM	581200 (00)	191024 (0)	1752100	207807 (00)	2097 (000)				
TOTALS		294,000	90,110	1,752,100	72,000	296,000 =			2,504,210	3,174,900

* Outgoing Meters on Separate Sheet

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client: Koppers
Outfall: West
Date: 3-29-95

Name: J. Romeis
Arrival Time: 12:25
Departure Time: 1:15

Sampler #: Theirs
Meter #: Theirs

Battery #: AC
Battery #: AC

# of Samples: —
RDL: .947
ACTL: .96

Sampling Interval: 9
TF: 7922739 (00)

Multiplex: Comp
Primary Device: 3" Parshall

Time/Flow/Storm
ICE/REF.
Scaling Constant: —
Max. Head: 2.0

Install TURN-ON Service Pull
Sample Initiation: 1000
Install Service Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	
5	
6.	
7.	
8.	
9.	
0.	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
0.	
1.	
2.	
3.	
4.	

Confined Space Entry Permit

Type of Confined Space: DNE
Work To Be Performed:

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact:
Person Entering Space:
Second Person (Outside Space):

Summary: Ok. * Took grabs.

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client: Koppers
Outfall: West
Date: 3-28-95

Name: J. Rowies
Arrival Time: 1:20
Departure Time: 2:00

Sampler #: Theirs
Battery #: AC
Meter #: Theirs
Battery #: AC

# of Samples: 77
RDL: 1.278
ACTL: 1.29

Sampling Interval: 9
TF: 7929726

Multiplex: Comp
Primary Device: 3" Parshall

Time/Flow/Storm
CF/REF.
Scaling Constant: —
Max. Head: 2.0

Install Service Pull
Sample Initiation: 1000
Install Service Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	
5.	Jug Full
6.	
7.	
8.	
9.	Cloudy, dark, SS
10.	
11.	
12.	
13.	
14.	
15.	* Attached one of EMT's roll-up
16.	assemblies to their meter.
17.	
18.	Brought theirs (roll-up) in for repair
19.	or to be looked at. Gave to
20.	
21.	Darrin Gurnez.
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space
Work To Be Performed

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact
Person Entering Space
Second Person (Outside Space)

Summary
OK *

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Cli. Koppers
Outfall West
Date 3-29-95

Name J. Romeis
Arrival Time 1:15
Departure Time 2:00

Sampler # Theirs
Meter # Theirs

Battery # AC
Battery # AC

# of Samples 59
RDL. .711
ACTL. .70

Sampling Interval 9
TF. 7935079 (00)

Multiplex Comp
Primary Device 3" Parshall

Time/Flow/Storm ICE/REF.
Scaling Constant —
Max. Head 2.0

Install Service Pull
Sample Initiation 1000

Install Service Pull

Bottle # Description/Comments

1.
2.
3.
4.
5
6. Jug 3/4 Full
7.
8.
9. Cloudy, dark, SS
0.
1.
2.
3.
4.
5.
6.
7.
8.
9.
0.
1.
2.
3.
4.

Confined Space Entry Permit

Type of Confined Space DNE

Work To Be Performed

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

coming Meters
3/27 given 3/29 from CF/GAL
Job Hanger CF/GAL
sh → 580906 (000) CF/GAL
w → 192013 (0) CF/GAL
→ 0 CF/GAL
→ 207007 (00) CF/GAL
n → 1801000
ients Meter

Company Contact
Person Entering Space
Second Person (Outside Space)

Summary EK
J. Romeis

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

CI Koppers

Outfall West

Date 3-30-95

Name J. Romeis

Arrival Time 12:15

Departure Time 1:00

Sampler # Theis

Meter # Theis

Battery # AC

Battery # AC

# of Samples 45

RDL. .776

ACTL. .77

Sampling Interval 9

TF. 7939209 (00)

Multiplex Comp

Primary Device 3" Parshall

Time/Flow/Storm

TOE/REF.

Scaling Constant —

Max. Head 2.0

Install Service Pull

Sample Initiation 1000

Install Service Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	Jug ½ Full
9.	
10.	
11.	Cloudy, SS, ~~SM~~
12.	
13.	DARK
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space DNE

Work To Be Performed

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 5 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL

CF/GAL

CF/GAL

CF/GAL

CF/GAL

CF/GAL

Clients Meter

Company Contact

Person Entering Space

Second Person (Outside Space)

Summary

Signature J. Romeis

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

C t Koppers

Outfall 3-31-95 Date West

Name J. Romeis

Arrival Time 12:10 Departure Time 12:40

Sampler # Theis

Meter # Theis

Battery # AC

Battery # AC

# of Samples 50

RDL. .774 ACTL. .78

Sampling Interval 9 → 8 → 7

TF. 7943738 (00)

Multiplex Comp

Primary Device 3" Parshall

Time/Flow/Storm ICE/REF.

Scaling Constant — Max. Head 2.0

Install Service Pull

Sample Initiation 1600

Install Service Pull

Bottle # Description/Comments

1.
2.
3.
4.
5.
6
7. Vus ½ Full
8.
9.
10. Cloudy, dark, SS
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.
22.
23.
24.

Confined Space Entry Permit

Type of Confined Space DNE

Work To Be Performed

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

ncoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact

Person Entering Space

Second Person (Outside Space)

Summary OK Did monthly cal of all meters. Did not pull west pump

ients Meter

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

C t Koppers Outfall West Date 4/[illegible]

Name [illegible] Arrival Time 1:40 Departure Time [illegible]

Sampler # 3710 (Kim) Meter # 3710 (Kim)

Battery # AC Battery # AC

# of Samples 70 RDL. .727 ACTL. .73

Sampling Interval 7 TF. 7448821 (00)

Multiplex Composite Primary Device 3" Parshall

Time/Flow/Storm ICE/REF. Scaling Constant — Max. Head [illegible]

Install Service Pull Sample Initiation 1000

Install Service Pull

Bottle # Description/Comments

1.
2.
3.
4. Jug 2/3 full Cloudy-brown (dark) w/ S.S.
5.
6.
7.
8.
9.
0.
1.
2.
3.
4.
5.
6.
7.
8.
9.
0.
1.
2.
3.
4.

Confined Space Entry Permit

Type of Confined Space Did not enter

Work To Be Performed

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

coming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

ents Meter

Company Contact
Person Entering Space
Second Person (Outside Space)

Summary [illegible]

Signature [illegible]

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Cli Koppers

Outfall West

Date 4/2 [illegible]

Name J. Grad

Arrival Time 1:20

Departure Time 1:40

Sampler # 2710 (Flair)

Meter # 3210 (Flair)

Battery # AC

Battery # AC

# of Samples 61

RDL. 1.015

ACTL. 1.01

Sampling Interval 7

TF. 7953126 (00)

Multiplex Composite

Primary Device 3" Parshall

Time/Flow/Storm ICE/REF

Scaling Constant —

Max. Head [illegible]

Install Service Pull

Sample Initiation 1000

Install Service Pull

ottle # Description/Comments

1.
2.
3.
4.
5.
6.

Jug 2/3 full Cloudy - dark w/S.S

Confined Space Entry Permit

Type of Confined Space DNE

Work To Be Performed

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

ming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact

Person Entering Space

Second Person (Outside Space)

Summary [illegible]

ts Meter

Signature J. Grad

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client: KOPPERS
Outfall: 1A
Date: 9/3/95

Name: R. CIOLINO / M. MAMSEN
Arrival Time: 1:10 PM
Departure Time: 1:35 PM

Sampler #: THEIRS
Meter #: THEIRS

Battery #: PP
Battery #: PP

# of Samples: 65
RDL: 1.024
ACTL: 100

Sampling Interval: 7
TF: 7957488

Multiplex: COMP
Primary Device: 3" PARSHALL

Time/~~Flow~~/Storm
ICE/~~REF~~
Scaling Constant: —
Max. Head: 2.0

Install ~~Service~~ Pull
Sample Initiation: 1000
Install ~~Service~~ Pull

Bottle #	Description/Comments
1.	
2.	
3.	1/2 JUG FULL
4.	
5.	
6.	CLOUDY
7.	BLACKISH
8.	
9.	SS
0.	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
0.	

Confined Space Entry Permit

Type of Confined Space
Work To Be Performed

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 1 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

coming Meters
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

ents Meter

Company Contact
Person Entering Space
Second Person (Outside Space)

Summary OK - TURNED OFF

Signature Robert J. Ciolino

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Rec

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16905

Company: Kappers Industries
Address:

Phone #: (___)___-___ Fax #: (___)___-___
P.O. #: Proj. #: ___-___
Client Contact:
Project ID / Location: PSES

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste
Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	SVOC*, PCB, Pest, Herb	Arg. B Comp, Ag	FOG, CN, pH, VOC**												Comments
West-Fr (Kappers)	1	32oz.	G	6	4/2/95	2P	1	14701	X							12	02	71					*SVOC includes Malen acid as dimethyl ester, 1,4-hydroquinone, phthalic acid as dimethyl ester.
West-Fr	↓	↓	↓	2	↓	↓	3	14702		X													
West-Sub/VOC	↓	↓/40ml	↓/V	2/3	↓	↓	HCL/4	11703			X												
																							** VOC includes [illegible]

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 4-2-95 Time: 8:10	Received By:	Date: Time:	Witness:	TURNAROUND TIME: ☐ RUSH ___day turnaround
Relinquished By:	Date:	Received For Lab By:	Date: 4-2-95		

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Rec

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 17071

Company: Koppers Industries
Address:

Phone #: (___) ___-___ Fax #: (___) ___-___
P.O. #: Proj. #: ___-___
Client Contact: Rob Harsh
Project ID / Location:

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste
Other:

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	Arg D metals, dry, CN6+	5 VOC (Maleic acid as dewatering)	Ester, 1,4-Naphthoquinone	Phthalic acid as dewatering (ester)	PCB/Pest/Herb	FOG, CN, pH, VOC (incl. Kepone)									Comments
West - FPC (Jeffers)	1	32 oz.	G	6	4/1/95	2 P		14648	X	X	X	X	X										1.20.2.72
West - FPC (Pond)	↓	↓	G	2	↓	↓		47	X														
West - Grab/VOC	↓	32oz/40ml	G/V	2/3	↓	↓		14650						X									

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 4-1-95	Received By:	Date:	Witness:	TURNAROUND TIME
[signature]	Time: 5:00		Time:		☐ RUSH
Relinquished By:	Date:	Received For Lab By: [signature]	Date: 4-1-95		day turnaround

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16

Company: Koppers
Address:

Phone #: (___)___-___ Fax #: (___)___-___
P.O. #: Proj. #: ___-___
Client Contact:
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste
Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PCB/PEST/HERB	SVOC (includes Maleic)	Acid as dimethylester	1,4-Naphthoquinone	phthalic acid as dimethylester	App B Metals	Ag	Cr+6	FOG ipH	CN-	VOCs (include Xylene)	Comment
Wast-PPC-Teflon	2	Qt	G	6	3/31/95			14529	X	+	+	+	+	+	~~X~~	~~X~~				120271
↓	↓	↓	↓	2	↓			14528							X	X	X			
- GRAB				2				14529										X	X	120495
- ↓	↓	40ml	↓	3	↓														X	

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 3-31-95 Time: 12:31	Received By:	Date: 3-31-95 Time: 12:30	Witness:
Relinquished By:	Date: 3-31-95 Time: 15:50	Received For Lab By:	Date: 3-31-95 Time: 4:35	

TURNAROUND TIME:
☐ RUSH
___ day turnaround
☐ ROUTINE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Re

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16

Company: Koppers
Address:

Phone #: (__)_____-_____ Fax #: (__)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste
Other: _____

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PCB/PEST/HERB	SVOC (includes Malac	Acid as dimethyl ester	1,4-Naphthoquinone	phthalic acid as dimethyl ester	App. B Metals	Ag	Cr+6	FOG, pH	CN-	VOC's (include Xylene)		Comment
West-FPC-Teflon	1	Qt	G	6	3/30/95			14353	+	+	+	+	+	+							3/2027
West-FPC	↓	↓	↓	2	↓			14354							X	+	+				
West-Grab	↓	↓	↓	2	↓			14355											X	+	
West-Grab	↓	40 mL	↓	3	↓															X	

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Received By:	Date:	Witness:
R. Harsh	3-30-95 Time: 1:00	V. Romeis	3-30-95 Time: 12:55	
Relinquished By: V. Romeis	3-30-95 Time: 14:10	Received For Lab By: [illegible]	3-30-95 Time: 1:17	

TURNAROUND TIME:
☐ RUSH
__ day turnaround
☐ POL

SPECIAL INSTRUCTIONS

MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 168

Company: Koppers
Address:

Phone #: (___)___-___ Fax #: (___)___-___
P.O. #: Proj. #: ___-___
Client Contact:
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste
Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PCB/PEST/HERB	SVOC (includes Malic acid as dimethyl ester)	1,4-Naphthoquinone	phthalic acid as dimethyl ester	Ag, Hex Cr, PPB	FOG, pH	CN	VOC's (includes xylene)					Commer
West-FPC-Teflon	1	Qt	G	6	3/29/95			14223	X	X	X	X	X	X								12027
West-FPC	↓	↓	↓	2	↓			14224							X							
West-Grab	↓	↓	↓	2	↓			14225								X	X					
West-Grab	↓	40mL	↓	3	↓													X				

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Received By:	Date:	Witness:	TURNAROUND TIME:
[signature]	3-29-95 Time: 1:45	V. Romeis	3-29-95 Time: 1:45 pm		☐ RUSH ___ day turnaround
Relinquished By: V. Romeis	Date: 3-29-95 Time: 15:00	Received For Lab By: [signature]	Date: 3/29/95 Time:		

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Re

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16

Company: Koppers
Address:

Phone #: (___)___-___ Fax #: (___)___-___
P.O. #: Proj. #: ___-___
Client Contact:
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste
Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PCB/PEST/HERB	SVOC (including Maleic acid as dimethyl ester)	Acid as dimethyl ester	1,4-Naphthoquinone	phthalic acid as dimethyl ester			App B Metals, Ag	Cr+6	FOG	CN-, pH	VOC's (including Xylene)			Commer
West-FPC-Teflon	1	QL	G	6	3/20/95			14122	X	X	X	X	X	X									120276
West-FPC	↓	↓	↓	2	↓			14123								X	X						
West-Grab	↓	↓	↓	2	↓			14124										X	X				
West-Grab	↓	40mL	↓	3	↓			14124												X			

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Received By:	Date:	Witness:	TURNAROUND TIME:
V. Romey	3-28-95 Time: 16:15		-- -- Time: :		☐ RI ___ y turnaround
Relinquished By:	Date: -- -- Time: :	Received For Lab By: [signature]	Date: 3-28-95		

SPECI... ISTRU...

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody R

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16.

Company: Koppers
Address:

Phone #: (___)___-___ Fax #: (___)___-___
P.O. #: Proj. #: ___-___
Client Contact:
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste
Other:

Container Type: P - Plastic G - Glass V - VOC

Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	FOG	CN-, pH	VOC's (including Xylene)												Comme
West-GRAB	I	Qt 40ml	G G	2 3	3/27/95			14069															12 049

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 3-27-95	Received By:	Date: -- --	Witness:	TI[illegible]AROUND TIME:
J. Romeis	Time: 18:00		Time: :		☐ RUS[illegible]
Relinquis. By:	Date: -- --	Received For Lab By: [illegible]	Date: [illegible]		
	Time:				

ATTACHMENT 2
PERFORMANCE AFTER REGENERATIVE THERMAL OXIDIZERS

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708-967-6735

Groundwater Monitoring
Laboratory Services
Mobile Laboratory Services
Source Emissions

Waste Characterization (RCRA)
Wastewater Compliance Monitoring
• Pretreatment
• User Charge

June 26, 1995

Mr. Robert Harsh
Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Subject: May - June 1995
User Charge Test

Dear Mr. Harsh:

The results of the May - June 1995 User Charge Test at your facility are summarized on the following pages of this report. Testing was conducted at the final discharge outfalls, North and West. A sample of effluent was taken on an flow proportioned basis for a period of seven days at each outfall. The individual samples were composited at the end of each 24 hour period and delivered to our laboratory. The laboratory data sheet is attached to this report.

We certify that all sampling procedures meet the requirements listed in the User Charge Ordinance. All laboratory analyses performed follow the methodology set forth in "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

If you have any questions, please do not hesitate to call.

Sincerely,

Arron J. Kwak

Arron J. Kwak

AJK/th/95062604

Attachments

1.Name: 'oppers Industries, Inc.
2.Address: 900 S. Laramie Avenue, Cicero, IL 60650
3.Sampling Data: Samples Collected By: J.R., M.Mom., S.I.

3. Federal Tax Number:
4. Outlet Number: West Outfall
5. Primary Device: 3" Parshall

Sample Date and Day of Week	6b. Sample Times and Duration	6c. Metered Intake	6d. Metered Discharge	6e. Date Received	6f. Date Analyzed BOD	6f. Date Analyzed SS	6g. BOD--mg/L Dilution/Result	6h. SS--mg/L
Tues-Wed 5/30-31/95	from12:05 PM to 10:50 AM	846,670	288,580	05/31	beg 05/31 end 06/05	05/31	16/ 19	30
Wed-Thurs 5/31-6/1/95	from10:50 AM to 01:37 PM	846,670	315,780	06/01	beg 06/01 end 06/06	06/01	16/ 4	17
Thurs-Fri 6/1-2/95	from01:37 PM to 11:50 AM	846,670	290,850	06/02	beg 06/02 end 06/07	06/02	20/ 2	4
Fri-Sat /2-3/95	from11:50 AM to 02:40 PM	846,670	449,120	06/03	beg 06/03 end 06/08	06/03	16/ 3	14
Sat-Sun /3-4/95	from02:40 PM to 02:15 PM	846,670	422,180	06/04	beg 06/04 end 06/09	06/04	16/ 5	10
Sun-Mon /4-5/95	from02:15 PM to 03:20 PM	846,670	508,650	06/05	beg 06/05 end 06/10	06/05	8/ 4	20
Mon-Tues /5-6/95	from03:20 PM to 04:15 PM	846,670	504,260	06/06	beg 06/06 end 06/11	06/06	12/ 4	26
Avg. flows (for intake & scharge) & flow-weighted		846,670	397,060	Samples taken every Samples kept cool by		6000 g ice	5	18

ılytical data for BOD & SS.

BOD Seed Source: MSD Treatment Plant West - Southwest (Stickney)

Exceptions:

Name of Analyst: T. Santonastaso

11. Analyst's Supervisor: Gary Wiggenhauser

---

rtification. The undersigned has examined this statement and its supporting documentation, and he/she certifies that the methods used in the sampling analyses reported thereon were conducted in accordance with the latest edition of Standard Methods for the Examination of Water and Wastewater, and that the information contained theron to the best of his/her knowledge is true, correct, and complete.

·/Company Name: Koppers Industries, Inc. Date:

ature of Officer/Owner _____ Telephone:

cer's Name and Title:

ultant or Lab. Name: Environmental Monitoring & Technologies Date: 06/29/95

ature of Officer/Owner Keith Gray ASK Telephone: 708-967-6666

cer's Name and Title: Keith Gray, Manager

3 FORM MUST BE COMPLETED AND ATTACHED TO DOCUMENTATION WITH THE USER CHARGE ANNUAL CERTIFIED STATEMENT

Koppers IndusKoppers Industries, Inc. West Outfall

FLOW-WEIGHTED CALCULATIONS (continued) Page 2

Date	Flow (gals)	BOD (mg/L)	SS (mg/L)	BOD (lbs)	SS (lbs)
5/30-31/95	288580	19	30	45.73	72.20
5/31-6/1/95	315780	4	17	10.53	44.77
6/1-2/95	290850	2	4	4.85	9.70
6/2-3/95	449120	3	14	11.24	52.44
6/3-4/95	422180	5	10	17.60	35.21
6/4-5/95	508650	4	20	16.97	84.84
6/5-6/95	504260	4	26	16.82	109.34
	2779420	41.00	121.00	123.75	408.51

Arithmetic Averages..... BOD (mg/L) 6 SS(mg/L) 17
Flow-Weighted Averages..... BOD (mg/L) 5 SS(mg/L) 18

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

124745

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 6/26/95
Sample Received: As Listed

Project Name: June 1995 User Charge Sampling
Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall

Date	Sample No.	BOD	Total Suspended Solids
5/30-31/95	20511	19	30
5/31-6/1/95	20714	4	17
6/1-2/95	20763	<2	4
6/2-3/95	20932	3	14
6/3-4/95	20957	5	10
6/4-5/95	20999	4	20
6/5-6/95	21097	4	26

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Weight

ATTACHMENT 3
ANALYSIS PRIOR TO SEPTEMBER 8, 1995 INCIDENT

ENVIRONMENTAL
MONITORING AND
TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130473

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/26/95
Sample Received: As Listed

Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall

Date Sampled	9/11-12	9/12-13	9/13-14	9/14-15	9/15-16	9/19-20
Sample No.	30369	30500	30592	30740	30751	31103
Hexavalent Chromium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chromium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.30	0.15	0.34	0.38	0.26	0.31
Lead	<0.20	<0.20	0.25	<0.20	<0.20	<0.20
Mercury	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Nickel	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Silver	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Zinc	0.14	0.11	0.13	<0.10	<0.10	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130109-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/12/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/11-12/95

Sample No.: 30369

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Naphthalene	<0.13	<0.13	0.13	10
14. Hexachlorobutadiene	<0.5	<0.5	0.5	10
15. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
16. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
17. Acenaphthylene	<0.13	<0.13	0.13	10
18. Dimethylphthalate	<0.7	<0.7	0.7	10
19. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
20. Acenaphthene	<0.13	<0.13	0.13	10
21. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
22. Fluorene	<0.13	<0.13	0.13	10
23. Diethylphthalate	<1.0	<1.0	1.0	10
24. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10

Leah E. Zihre

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130109-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/12/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/11-12/95

Sample No.: 30369

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
25. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
26. Diphenylhydrazine	<1.6	<1.6	1.6	10
27. 4-Bromophenyl phenyl ether	<0.6	<0.6	0.6	10
28. Hexachlorobenzene	<1.9	<1.9	1.9	10
29. Phenanthrene	<0.13	<0.13	0.13	10
30. Anthracene	<0.13	<0.13	0.13	10
31. Di-n-butylphthalate	<0.5	<0.5	0.5	10
32. Fluoranthene	<0.13	<0.13	0.13	10
33. Benzidine	<4.7	<4.7	4.7	50
34. Pyrene	<0.13	<0.13	0.13	10
35. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
36. Benzo(a)anthracene	0.5	<0.13	0.13	10
37. Chrysene	0.2	<0.13	0.13	10
38. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
39. Bis(2-ethylhexyl)phthalate	<2.5	<2.5	2.5	10
40. Di-n-octylphthalate	<4.7	<4.7	4.7	10
41. Benzo(b)fluoranthene	0.5	<0.13	0.13	10
42. Benzo(k)fluoranthene	<0.13	<0.13	0.13	10
43. Benzo(a)pyrene	0.3	<0.13	0.13	10
44. Indeno(1,2,3-cd)pyrene	<0.13	<0.13	0.13	10
45. Dibenzo(a,h)anthracene	<0.13	<0.13	0.13	10
46. Benzo(ghi)perylene	<0.13	<0.13	0.13	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zehr

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130109-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/12/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/11-12/95

Sample No.: 30369

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. Phenol	<0.4	<0.4	0.4	10
2. 2-Chlorophenol	<0.9	<0.9	0.9	10
3. 2-Nitrophenol	<1.8	<1.8	1.8	10
4. 2,4-Dimethylphenol	<0.5	<0.5	0.5	10
5. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
6. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
7. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
8. 2,4-Dinitrophenol	<3.1	<3.1	3.1	10
9. 4-Nitrophenol	<2.4	<2.4	2.4	10
10. 4,6-Dinitro-o-cresol	<3.0	<3.0	3.0	10
11. Pentachlorophenol	<4.1	<4.1	4.1	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zikes

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

130109

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/12/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/11-12/95

Sample No.: 30369

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.08	<0.08	0.08	0.5
PCB 1232	<0.08	<0.08	0.08	0.5
PCB 1016 (1242)	<0.08	<0.08	0.08	0.5
PCB 1248	<0.08	<0.08	0.08	0.5
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.08	<0.08	0.08	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Lech E. Zuber

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

130109-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/12/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/11-12/95

Sample No.: 30369

Pesticides Single Peak	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.10
2. ß-BHC	<0.03	<0.03	0.03	0.10
3. Y-BHC (Lindane)	<0.03	<0.03	0.03	0.10
4. δ-BHC	<0.03	<0.03	0.03	0.10
5. Heptachlor	<0.04	<0.04	0.04	0.10
6. Aldrin	<0.03	<0.03	0.03	0.10
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.10
8. Endosulfan I	<0.03	<0.03	0.03	0.15
9. Dieldrin	<0.03	<0.03	0.03	0.15
10. 4,4'-DDE	<0.03	<0.03	0.03	0.15
11. Endrin	<0.10	<0.10	0.10	0.50
12. Endosulfan II	<0.05	<0.05	0.05	0.50
13. Endrin aldehyde	<0.15	<0.15	0.15	0.50
14. 4,4'-DDD	<0.04	<0.04	0.04	0.50
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.50
16. 4.4'-DDT	<0.16	<0.16	0.16	0.50
Multiple Peak				
17. Chlordane	<0.26	<0.26	0.26	1.00
18. Toxaphene	<0.50	<0.50	0.50	1.50

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

130108-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/21/95
Sample Received: 9/13/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/12-13/95

Sample No.: 30500

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	0.2	<0.2	0.2	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ehter	<0.6	<0.6	0.6	10

Leah E. Zel

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LABORATORY REPORT

130108-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/21/95
Sample Received: 9/13/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/12-13/95

Sample No.: 30500

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. [illegible]

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LABORATORY REPORT

130108-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/21/95
Sample Received: 9/13/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/12-13/95

Sample No.: 30500

Compound Acid Extractables	Concentration Found In Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

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LABORATORY REPORT

130108

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/13/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/12-13/95

Sample No.: 30500

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.08	<0.08	0.08	0.5
PCB 1232	<0.08	<0.08	0.08	0.5
PCB 1016 (1242)	<0.08	<0.08	0.08	0.5
PCB 1248	<0.08	<0.08	0.08	0.5
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.08	<0.08	0.08	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

130108-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/13/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/12-13/95

Sample No.: 30500

Pesticides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.10
2. ß-BHC	<0.03	<0.03	0.03	0.10
3. Y-BHC (Lindane)	<0.03	<0.03	0.03	0.10
4. δ-BHC	<0.03	<0.03	0.03	0.10
5. Heptachlor	<0.04	<0.04	0.04	0.10
6. Aldrin	<0.03	<0.03	0.03	0.10
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.10
8. Endosulfan I	<0.03	<0.03	0.03	0.15
9. Dieldrin	<0.03	<0.03	0.03	0.15
10. 4,4'-DDE	<0.03	<0.03	0.03	0.15
11. Endrin	<0.10	<0.10	0.10	0.50
12. Endosulfan II	<0.05	<0.05	0.05	0.50
13. Endrin aldehyde	<0.15	<0.15	0.15	0.50
14. 4,4'-DDD	<0.04	<0.04	0.04	0.50
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.50
16. 4.4'-DDT	<0.16	<0.16	0.16	0.50
Multiple Peak				
17. Chlordane	<0.26	<0.26	0.26	1.00
18. Toxaphene	<0.50	<0.50	0.50	1.50

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

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LABORATORY REPORT

130111-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/14/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/13-14/95

Sample No.: 30592

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Naphthalene	<0.13	<0.13	0.13	10
14. Hexachlorobutadiene	<0.5	<0.5	0.5	10
15. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
16. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
17. Acenaphthylene	0.6	<0.13	0.13	10
18. Dimethylphthalate	<0.7	<0.7	0.7	10
19. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
20. Acenaphthene	<0.13	<0.13	0.13	10
21. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
22. Fluorene	<0.13	<0.13	0.13	10
23. Diethylphthalate	<1.0	<1.0	1.0	10
24. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10

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LABORATORY REPORT

130111-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/14/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/13-14/95

Sample No.: 30592

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
25. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
26. Diphenylhydrazine	<1.6	<1.6	1.6	10
27. 4-Bromophenyl phenyl ether	<0.6	<0.6	0.6	10
28. Hexachlorobenzene	<1.9	<1.9	1.9	10
29. Phenanthrene	<0.13	<0.13	0.13	10
30. Anthracene	<0.13	<0.13	0.13	10
31. Di-n-butylphthalate	<0.5	<0.5	0.5	10
32. Fluoranthene	<0.13	<0.13	0.13	10
33. Benzidine	<4.7	<4.7	4.7	50
34. Pyrene	<0.13	<0.13	0.13	10
35. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
36. Benzo(a)anthracene	1.3	<1.0	1.0	10
37. Chrysene	1.1	<1.0	1.4	10
38. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
39. Bis(2-ethylhexyl)phthalate	<2.5	<2.5	2.5	10
40. Di-n-octylphthalate	<4.7	<4.7	4.7	10
41. Benzo(b)fluoranthene	1.4	<1.0	1.0	10
42. Benzo(k)fluoranthene	<0.13	<0.13	0.13	10
43. Benzo(a)pyrene	1.1	<1.0	1.0	10
44. Indeno(1,2,3-cd)pyrene	<0.13	<0.13	0.13	10
45. Dibenzo(a,h)anthracene	<0.13	<0.13	0.13	10
46. Benzo(ghi)perylene	<0.13	<0.13	0.13	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Luke E. Zikes

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LABORATORY REPORT

130111-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/14/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/13-14/95

Sample No.: 30592

Compound Acid Extractables	Concentration Found In Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. Phenol	<0.4	<0.4	0.4	10
2. 2-Chlorophenol	<0.9	<0.9	0.9	10
3. 2-Nitrophenol	<1.8	<1.8	1.8	10
4. 2,4-Dimethylphenol	<0.5	<0.5	0.5	10
5. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
6. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
7. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
8. 2,4-Dinitrophenol	<3.1	<3.1	3.1	10
9. 4-Nitrophenol	<2.4	<2.4	2.4	10
10. 4,6-Dinitro-o-cresol	<3.0	<3.0	3.0	10
11. Pentachlorophenol	<4.1	<4.1	4.1	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeber

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LABORATORY REPORT

130111

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/14/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/13-14/95

Sample No.: 30592

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.08	<0.08	0.08	0.5
PCB 1232	<0.08	<0.08	0.08	0.5
PCB 1016 (1242)	<0.08	<0.08	0.08	0.5
PCB 1248	<0.08	<0.08	0.08	0.5
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.08	<0.08	0.08	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zilin

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LABORATORY REPORT

130111-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/14/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/13-14/95

Sample No.: 30592

Pesticides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.10
2. ß-BHC	<0.03	<0.03	0.03	0.10
3. Y-BHC (Lindane)	<0.03	<0.03	0.03	0.10
4. δ-BHC	<0.03	<0.03	0.03	0.10
5. Heptachlor	<0.04	<0.04	0.04	0.10
6. Aldrin	<0.03	<0.03	0.03	0.10
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.10
8. Endosulfan I	<0.03	<0.03	0.03	0.15
9. Dieldrin	<0.03	<0.03	0.03	0.15
10. 4,4'-DDE	<0.03	<0.03	0.03	0.15
11. Endrin	<0.10	<0.10	0.10	0.50
12. Endosulfan II	<0.05	<0.05	0.05	0.50
13. Endrin aldehyde	<0.15	<0.15	0.15	0.50
14. 4,4'-DDD	<0.04	<0.04	0.04	0.50
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.50
16. 4.4'-DDT	<0.16	<0.16	0.16	0.50
Multiple Peak				
17. Chlordane	<0.26	<0.26	0.26	1.00
18. Toxaphene	<0.50	<0.50	0.50	1.50

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zelin

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

129863

Koppers Company. Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 9/22/95
Sample Received: 9/15/95

Sample Description: Watewater 24FPC West Outfall 9/14-15/95
Sample No.: 30740

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ehter	<0.6	<0.6	0.6	10

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LABORATORY REPORT

129863

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 9/22/95
Sample Received: 9/15/95

Sample Description: Watewater 24FPC West Outfall 9/14-15/95
Sample No.: 30740

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E Zeh...

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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FAX: 708/967-6735

LABORATORY REPORT

129863-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 9/22/95
Sample Received: 9/15/95

Sample Description: Watewater 24FPC West Outfall 9/14-15/95
Sample No.: 30740

Compound Acid Extractables	Concentration Found In Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Frank E Filer

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

130110

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/15/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/14-15/95

Sample No.: 30740

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.08	<0.08	0.08	0.5
PCB 1232	<0.08	<0.08	0.08	0.5
PCB 1016 (1242)	<0.08	<0.08	0.08	0.5
PCB 1248	<0.08	<0.08	0.08	0.5
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.08	<0.08	0.08	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zile

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LABORATORY REPORT

130110-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/15/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/14-15/95

Sample No.: 30740

Pesticides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.10
2. ß-BHC	<0.03	<0.03	0.03	0.10
3. Y-BHC (Lindane)	<0.03	<0.03	0.03	0.10
4. δ-BHC	<0.03	<0.03	0.03	0.10
5. Heptachlor	<0.04	<0.04	0.04	0.10
6. Aldrin	<0.03	<0.03	0.03	0.10
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.10
8. Endosulfan I	<0.03	<0.03	0.03	0.15
9. Dieldrin	<0.03	<0.03	0.03	0.15
10. 4,4'-DDE	<0.03	<0.03	0.03	0.15
11. Endrin	<0.10	<0.10	0.10	0.50
12. Endosulfan II	<0.05	<0.05	0.05	0.50
13. Endrin aldehyde	<0.15	<0.15	0.15	0.50
14. 4,4'-DDD	<0.04	<0.04	0.04	0.50
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.50
16. 4.4'-DDT	<0.16	<0.16	0.16	0.50
Multiple Peak				
17. Chlordane	<0.26	<0.26	0.26	1.00
18. Toxaphene	<0.50	<0.50	0.50	1.50

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zuber

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LABORATORY REPORT

130193-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/16/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/15-16/95

Sample No.: 30751

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	2.7	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Naphthalene	<0.13	<0.13	0.13	10
14. Hexachlorobutadiene	<0.5	<0.5	0.5	10
15. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
16. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
17. Acenaphthylene	1.7	<0.13	0.13	10
18. Dimethylphthalate	<0.7	<0.7	0.7	10
19. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
20. Acenaphthene	<0.13	<0.13	0.13	10
21. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
22. Fluorene	<0.13	<0.13	0.13	10
23. Diethylphthalate	<1.0	<1.0	1.0	10
24. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10

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LABORATORY REPORT

130193-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/16/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/15-16/95

Sample No.: 30751

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
25. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
26. Diphenylhydrazine	<1.6	<1.6	1.6	10
27. 4-Bromophenyl phenyl ether	<0.6	<0.6	0.6	10
28. Hexachlorobenzene	<1.9	<1.9	1.9	10
29. Phenanthrene	<0.13	<0.13	0.13	10
30. Anthracene	<0.13	<0.13	0.13	10
31. Di-n-butylphthalate	<0.5	<0.5	0.5	10
32. Fluoranthene	<0.13	<0.13	0.13	10
33. Benzidine	<4.7	<4.7	4.7	50
34. Pyrene	<0.13	<0.13	0.13	10
35. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
36. Benzo(a)anthracene	0.8	<0.4	0.4	10
37. Chrysene	0.6	<0.4	0.4	10
38. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
39. Bis(2-ethylhexyl)phthalate	<2.5	<2.5	2.5	10
40. Di-n-octylphthalate	<4.7	<4.7	4.7	10
41. Benzo(b)fluoranthene	<0.13	<0.13	0.13	10
42. Benzo(k)fluoranthene	<0.13	<0.13	0.13	10
43. Benzo(a)pyrene	<0.13	<0.13	0.13	10
44. Indeno(1,2,3-cd)pyrene	<0.13	<0.13	0.13	10
45. Dibenzo(a,h)anthracene	<0.13	<0.13	0.13	10
46. Benzo(ghi)perylene	<0.13	<0.13	0.13	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zikes

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LABORATORY REPORT

130193-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/16/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/15-16/95

Sample No.: 30751

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. Phenol	<0.4	<0.4	0.4	10
2. 2-Chlorophenol	<0.9	<0.9	0.9	10
3. 2-Nitrophenol	<1.8	<1.8	1.8	10
4. 2,4-Dimethylphenol	<0.5	<0.5	0.5	10
5. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
6. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
7. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
8. 2,4-Dinitrophenol	<3.1	<3.1	3.1	10
9. 4-Nitrophenol	<2.4	<2.4	2.4	10
10. 4,6-Dinitro-o-cresol	<3.0	<3.0	3.0	10
11. Pentachlorophenol	<4.1	<4.1	4.1	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

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Leah E. Zilber

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8100 North Austin Avenue
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FAX: 708/967-6735

LABORATORY REPORT

130193

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/21/95
Sample Received: 9/16/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/15-16/95

Sample No.: 30751

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.08	<0.08	0.08	0.5
PCB 1232	<0.08	<0.08	0.08	0.5
PCB 1016 (1242)	<0.08	<0.08	0.08	0.5
PCB 1248	<0.08	<0.08	0.08	0.5
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.08	<0.08	0.08	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

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ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
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LABORATORY REPORT

130193-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/21/95
Sample Received: 9/16/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite
West Outfall 9/15-16/95

Sample No.: 30751

Pesticides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.10
2. ß-BHC	<0.03	<0.03	0.03	0.10
3. Y-BHC (Lindane)	<0.03	<0.03	0.03	0.10
4. δ-BHC	<0.03	<0.03	0.03	0.10
5. Heptachlor	<0.04	<0.04	0.04	0.10
6. Aldrin	<0.03	<0.03	0.03	0.10
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.10
8. Endosulfan I	<0.03	<0.03	0.03	0.15
9. Dieldrin	<0.03	<0.03	0.03	0.15
10. 4,4'-DDE	<0.03	<0.03	0.03	0.15
11. Endrin	<0.10	<0.10	0.10	0.50
12. Endosulfan II	<0.05	<0.05	0.05	0.50
13. Endrin aldehyde	<0.15	<0.15	0.15	0.50
14. 4,4'-DDD	<0.04	<0.04	0.04	0.50
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.50
16. 4.4'-DDT	<0.16	<0.16	0.16	0.50
Multiple Peak				
17. Chlordane	<0.26	<0.26	0.26	1.00
18. Toxaphene	<0.50	<0.50	0.50	1.50

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zyl

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LABORATORY REPORT

130382-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/26/95
Sample Received: 9/20/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall 9/19-20/95

Sample No.: 31103

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	1.5	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ehter	<0.6	<0.6	0.6	10

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LABORATORY REPORT

130382-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/26/95
Sample Received: 9/20/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall 9/19-20/95

Sample No.: 31103

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	1.4	<0.5	0.5	10
27. Chrysene	1.1	<0.5	0.5	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	0.7	<0.2	0.2	10
31. Benzo(k)fluoranthene	0.4	<0.2	0.2	10
32. Benzo(a)pyrene	0.5	<0.2	0.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zilin

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

130382-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/26/95
Sample Received: 9/20/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall 9/19-20/95

Sample No.: 31103

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

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Leah E. Zeller

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LABORATORY REPORT

130382-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/26/95
Sample Received: 9/20/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall 9/19-20/95

Sample No.: 31103

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.08	<0.08	0.08	0.5
PCB 1232	<0.08	<0.08	0.08	0.5
PCB 1016 (1242)	<0.08	<0.08	0.08	0.5
PCB 1248	<0.08	<0.08	0.08	0.5
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.08	<0.08	0.08	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

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LABORATORY REPORT

130382-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/26/95
Sample Received: 9/20/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall 9/19-20/95

Sample No.: 31103

Pesticides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.10
2. ß-BHC	<0.03	<0.03	0.03	0.10
3. Y-BHC (Lindane)	<0.03	<0.03	0.03	0.10
4. δ-BHC	<0.03	<0.03	0.03	0.10
5. Heptachlor	<0.04	<0.04	0.04	0.10
6. Aldrin	<0.03	<0.03	0.03	0.10
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.10
8. Endosulfan I	<0.03	<0.03	0.03	0.15
9. Dieldrin	<0.03	<0.03	0.03	0.15
10. 4,4'-DDE	<0.03	<0.03	0.03	0.15
11. Endrin	<0.10	<0.10	0.10	0.50
12. Endosulfan II	<0.05	<0.05	0.05	0.50
13. Endrin aldehyde	<0.15	<0.15	0.15	0.50
14. 4,4'-DDD	<0.04	<0.04	0.04	0.50
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.50
16. 4,4'-DDT	<0.16	<0.16	0.16	0.50
Multiple Peak				
17. Chlordane	<0.26	<0.26	0.26	1.00
18. Toxaphene	<0.50	<0.50	0.50	1.50

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

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Leah E. Zeh

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LABORATORY REPORT

130469

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/26/95
Sample Received: As Listed

Sample Description: Wastewater Grab - West Outfall

Date Sampled	Sample No.	Total Cyanide	Fats, Oil & Grease	pH (units)
9/11	30237	<0.05	<4	7.26
9/12	30370	<0.50	12	7.44
9/13	30501	<0.05	5	7.41
9/14	30593	<0.05	7	6.92
9/15	30741	<0.05	12	7.12
9/16	30752	<0.05	6	7.14

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

130117

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/12/95

Sample Description: Wastewater Grab West Outfall 9/12/95
Sample No.: 30370

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	0.8	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	<0.5	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	100

Leah E. Zin.

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LABORATORY REPORT

130117

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/20/95
Sample Received: 9/12/95

Sample Description: Wastewater Grab West Outfall 9/12/95
Sample No.: 30370

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.7	<0.7	0.7	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	<0.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

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LABORATORY REPORT

130191

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/21/95
Sample Received: 9/13/95

Sample Description: Wastewater Grab West Outfall 9/13/95
Sample No.: 30501

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	12.8	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	<0.5	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	9.6	<0.5	0.5	5
20. Benzene	12.4	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	100

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LABORATORY REPORT

130191

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/21/95
Sample Received: 9/13/95

Sample Description: Wastewater Grab West Outfall 9/13/95
Sample No.: 30501

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.7	<0.7	0.7	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	15.	<0.5	0.5	5
29. Chlorobenzene	12.	<0.5	0.5	5
30. Ethylbenzene	<0.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR.

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LABORATORY REPORT

130404

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/14/95

Sample Description: Wastewater Grab West Outfall 9/14/95
Sample No.: 30593

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	1.5	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	<0.5	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	100

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LABORATORY REPORT

130404

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/14/95

Sample Description: Wastewater Grab West Outfall 9/14/95
Sample No.: 30593

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.7	<0.7	0.7	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	1.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR.

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Leah E. Zikes

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LABORATORY REPORT

130405

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/25/95
Sample Received: 9/16/95

Sample Description: Wastewater Grab West Outfall 9/16/95
Sample No.: 30752

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	2.0	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	3.3	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	[illegible]	[illegible]

Leah E. Zeller

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LABORATORY REPORT

130192

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/21/95
Sample Received: 9/17/95

Sample Description: Wastewater Grab West Outfall 9/17/95
Sample No.: 30814

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	<0.5	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	<0.5	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	100

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LABORATORY REPORT

130192

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/21/95
Sample Received: 9/17/95

Sample Description: Wastewater Grab West Outfall 9/17/95
Sample No.: 30814

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.7	<0.7	0.7	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	<0.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Z...

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LABORATORY REPORT

130333

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/22/95
Sample Received: 9/20/95

Sample Description: Wastewater Grab West Outfall 9/20/95
Sample No.: 31104

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	1.8	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	<0.5	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	100

Leah E. [illegible]

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130333

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/22/95
Sample Received: 9/20/95

Sample Description: Wastewater Grab West Outfall 9/20/95
Sample No.: 31104

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.7	<0.7	0.7	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	<0.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☐ RUSH
day turnaround
☐ ROUTINE

Chain of Custody Recor

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 29511

Company: Koppers
Address:

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Other: _____

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	EOG, Cu, pH	VOC (include ORTHOXYLENE)													Comments
West - Grab	1	QT 4oz	G/G	2/3	9/11/95			30837															

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: -- -- Time: :	Received By:	Date: 9-11-95 Time: 15:12	Witness:	☐ SAMPLE RECEIVED ON ICE
Relinquished By: J. Romero	Date: 9-11-95 Time: 17:30	Received For Lab By:	Date: 9-11-95 Time: :		☐ TEMPERATURE

SPEC INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☐ RUSH
day turnaround
☐ ROUTINE

Chain of Custody Recol

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 29515

Company:
Address: Koppers

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Other: _____

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	App B Metals	As, Hex Cr	SVOC (includes Malic Acid as Dimethyl ester)	Dimethyl ester, 1,4 Naphthaquinone and phthalic acid as Dimethyl Ester	PEST/HERB/PCB	FOG	CN pH	VOC (include orthoxylene)		Comments
West - FPC	1	Qt	G	4	9/12/95			30369	X	X	X	X	X	X	X	X	X	130109
West - Grab	"	Qt / 40ml	G / G	2 / 3	"			30376										130117

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date:	Received By:	Date:	Witness:
D Mele	Date: -- -- Time: :	V Romeis	Date: 9-12-95 Time: 10:32	☐ SAMPLE RECEIVED ON ICE
Relinquished By: V Romeis	Date: 9-12-95 Time: 16:35	Received For Lab By: [signature]	Date: 9-12-95 Time: :	☐ TEMPERATURE

SPEC. INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☐ RUSH
___ day turnaround
☒ ROUTINE

Chain of Custody Reco

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 29611

Company: KOPPERS
Address: 3900 S. LARAMIE
CICERO

Phone #: (708) 656-5900 Fax #: (___) ___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: ROB HARSH
Project ID / Location: ___

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other: ___

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D. 30500	ARP 13 METALS	AG HEXCR	PEST/HERBS	PCB	TOG CN	VOC **	pH	Comments
WEST FPC	1	QT	G	5	9/13	900P		30500	X	X	X					130168
WEST GRAB	1	QT	G	2	9/13	900P		30501				X				130191
WEST GRAB	1	40ml	V	3	9/13	800920		30501					X			

** INCLUDES ORTHOXYLENE

* INCLUDES MALEIC ACID AS DIMETHYL ESTER, 1,4 NAPTHAQUINONE AND PHTHALIC ACID AS DIMETHYL ESTER

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: 9-13-95 Time: 9:25	Received By:	Date: 9-13-95 Time: 9:25	Witness:	☒ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: 9-13-95 Time: :	Received For Lab By:	Date: 9-13-95 Time: 8:43		☐ TEMPERATURE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
[ ] RUSH
[ ] ....day turnaround
[X] ROUTINE

Chain of Custody Recor

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 29548

Company: KOPPERS
Address: 5700 S LAVAGNE
CICERO

Phone #: (708) 656-5400 Fax #: (___) ___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: ROB HARSH
Project ID / Location: ___

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other: ___

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PPB; METALS	PPB; HEXCR	PPB; PESTICIDES	SVOC	1,4 DIOXANE	VOC **	Comments
WEST ITC	1	8T	G	4	9/14			30592	X	X	X	X			130111
WEST GRAB	1	8T	G	2	↓			30593					X		130404
WEST GRAB	1	40ml	V	3	↓		HCL							X	

*- MALEIC ACID AS DIMETHYL ESTER, 1,4 NAPTHAQUINONE PHTHALIC ACID AS DIMETHYL ESTER.

**- INCLUDE ORTHOXYLENE

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date:	Received By:	Date:	Witness:	
P. Mele	9-14-95 Time: 3:00	[signature]	9-14-95 Time: 3:00		[X] SAMPLE RECEIVED ON ICE
Relinquished By: [signature]	9-14-95 Time:	Received For Lab By: [signature]	9-14-95 Time: 3:00		[ ] TEMPERATURE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☐ RUSH
day turnaround
☐ ROUTINE

Chain of Custody Reco

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 29735

Company: Koppers
Address:

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other: _____

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	Arsenic	Mercury	Metals	PBS/HERB	PCB	SVOC (including surface and 3 dimethyl	25 Tem 1,4-Naphthoquinone and phthalic	acid as dimethylester)	FOG	CN-	pH	VOC (including MTBE)	Mercury Leve	Comments
West - FPC	1	Qt	G	5	9/15/95			3072/0	+	+	+	+	+	+	+	+						150 /10
West - Grab	1	~~Qt~~ 40ml	~~G~~ G	~~2~~ 3	"			3072/1									+	+	+	+		only 1 QUART JAR (B)

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: -- --	Received By:	Date: 9-15-95	Witness:	☒ SAMPLE RECEIVED ONICE
P. Mele	Time: :	V. Romero	Time: 14:05		
Relinquished By:	Date: 9-15-95	Received For Lab By:	Date:		☐ TEMPERATURE
V. Romero	Time: 17:00		Time: 1882		

SPEC. INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Recor

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16627

Company: Koppers
Address: 3900 S Laramie Ave
Chicago IL

Phone #: (___)___-___ Fax #: (___)___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: Robert Harsh
Project ID / Location: West

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste
Other: ___

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PCB's	Pesticides	Arsenic	Hexcr	SVOC	FOG	CN	pH	VOC	Comments
West Comp	1	QT	G	3	9/15-9/16			30751	X									130122
↓ ↓	↓	500ml	P	4	↓			30751		X	X							
		40ml	V	3				30751				X						
West Grab	1	QT	G	1	9/16	855		30752					X					130405
↓ ↓	↓	500ml	P	1	↓			30752						X				
		40ml	V	3	↓	855-9/25		30752							X			

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Received By:	Date:	Witness:	TURNAROUND TIME:
DZ	9-16-95	Jeffrey D. Hamel	9-16-95		☐ RUSH
	Time: 9:46		Time: 9:46		___day turnaround
Relinquished By:	Date: 9-16-95	Received For Lab By:	Date: 9-16-95		☒ ROUTINE
	Time: 11:00		Time: :		

SPECIAL INSTRUCTIONS:

Effluent Flow Worksheet

Client: Kuppers Date Started: 9/11/95 Date Finished:

Date & Time	Initials	Effluent Meter Theirs ISCO 3210	ACL. RDL.	Effluent Meter	ACL. RDL.	Effluent Meter	ACL. RDL.	Effluent Meter	ACL. RDL.	Effluent Meter	ACL. RDL.	Total Effluent (Gal)	Total Incomming * (Gal)
9/11	JR	878,740(cc)	.78 .761										
9/12	VR	483,400 878,574(cc)	.96 .952									483,400	
9/13	MOM	530,300 879,577(cc)	.811 .842									530,300	
9/14 230	MOM	946,500 880,342(cc)	1.18 1.17									946,500	
9/15 2:00	VR	675,600 880,098(cc)	.80 .814									675,600	
9/16 845	JH	884,500	1.01 1.017									884,500	
9/17 12:30	TR	476,300 882,706(cc)	1.03 1.033									476,300	
9/19	RL	883,622(cc)	.83 .851										
9/20	RL	669,200 884,314(cc)	1.04 1.034									669,200	

* Incomming Meters on Seperate Sheet

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client: Koppers
Outfall: WEST
Date: 9/16/95
Name: J HAMILTON
Arrival Time: 845
Departure Time: 930
Sampler #: 2710 ISCO
Meter #: 3210
Battery #: AC
Battery #: AC
# of Samples: 67
RDL: 1.017
ACTL: 1.01
Sampling Interval: 9
TF: 363032100
Multiplex: Comp
Primary Device: 3" Parshall
Time/Flow/Storm
ICE/REF.
Scaling Constant
Max. Head: 2'
Install Service Pull
Sample Initiation: 1000
Install Service Pull

Bottle #	Description/Comments
1.	Composite clear w/ SS
2.	
3.	
4.	
5.	
7.	
8.	Composite Jar
9.	
10.	Full
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space: DO NOT Enter
Work To Be Performed

Ventilation

Min					
CO					<35 PPM
H_2S					<10 PPM
SO_2					<4 PPM
LEL					<10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Company Contact
Person Entering Space
Second Person (Outside Space)

Incoming Meters
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Clients Meter

Summary: FOG, CN, ph, First VOC Taken at 855
Interval Flow 48832160

Signature: John D Hamilton

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

CI Koppers

Outfall West

Date 9-15-95

Name V. Romeis

Arrival Time 1:40

Departure Time 2:10

Sampler # Theirs

Meter # Theirs

Battery # AC

Battery # AC

# of Samples 73

RDL. .814

ACTL. .80

Sampling Interval 9

TF. 8808098 (60)

Multiplex Comp

Primary Device 3" Parshall

Time/Flow/Storm

CE/REF.

Scaling Constant —

Max. Head 2.0

Install Service Pull

Sample Initiation 1000

Install Service Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	
5.	
6	
7.	
8.	
9.	Vus Full
10.	
11.	Clear, SS
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space DNE

Work To Be Performed

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL

CF/GAL

CF/GAL

CF/GAL

CF/GAL

CF/GAL

Company Contact

Person Entering Space

Second Person (Outside Space)

Summary dc.

Clients Meter

Signature V. Romeis

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

C t Koppers

Outfall West

Date 9-11-95

Name J. Romis

Arrival Time 8:48

Departure Time 9:15

Sampler # Thermo ISCO

Meter # Thermo ISCO 3210

Battery # AC

Battery # AC

# of Samples —

RDL. .761

ACTL. .78

Sampling Interval 9

TF. 878/740 (60)

Multiplex Comp

Primary Device 3" Parshall

Time/Flow/Storm

ICE/REF

Scaling Constant —

Max. Head 2.0

Sample Initiation 1000

Install Service Pull

TURN-ON

Install Service Pull

Bottle # Description/Comments

1.
2.
3.
4.
5.
7.
8. Installed. Thermo equipment.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.
22.
23.
24.

Confined Space Entry Permit

Type of Confined Space DNE

Work To Be Performed

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact

Person Entering Space

Second Person (Outside Space)

Summary etc. Took FOG, CN, VOC grabs

Clients Meter

Signature J. Romis

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Cl. Koppers

Outfall West

Date 9-12-95

Name J. Romeis

Arrival Time 10:03

Departure Time 10:35

Sampler # Theirs

Meter # Theirs

Battery # AC

Battery # AC

# of Samples 53

RDL. .956

ACTL. .96

Sampling Interval 9

TF. 8786574 (00)

Multiplex Comp

Primary Device 3" Par

Time/Flow/Storm

ICE/REF.

Scaling Constant —

Max. Head 2.0

Install Service Pull

Sample Initiation 1000

Install Service Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	Jug Full
9.	
10.	
11.	Clear, SS
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space DNE

Work To Be Performed

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact

Person Entering Space

Second Person (Outside Space)

Summary OK

Clients Meter

Signature J. Romeis

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client KOPPERS Outfall WEST Date 9/13/95

Name M. MOMSEN Arrival Time 8:50 Departure Time 9:20

Sampler # 2710 Meter # 3240

Battery # AC Battery # AC

# of Samples 58 RDL. .842 ACTL. .84

Sampling Interval 9 TF. 8791877(00)

Multiplex COMP Primary Device 3" PAR

Time/Flow/Storm ICE/REF. Scaling Constant Max. Head 20

Install Service Pull Sample Initiation 1000

Install Service Pull

Bottle #	Description/Comments
1. FULL	CLEAR WITH A VERY
2.	SLIGHT GOLD TINT
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space DUE

Work To Be Performed N/A

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Company Contact

Person Entering Space

Second Person (Outside Space)

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Summary

Clients Meter

Signature

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Cl. KOPPERS Outfall WEST Date 9/14/95

Name M. MOMSEN Arrival Time 230 Departure Time 300

Sampler # 2710 Meter # 3210

Battery # AC Battery # AC

# of Samples 105 RDL. 1.17 ACTL. ~~1.12~~ 1.18

Sampling Interval 9 TF. 880342 (60)

Multiplex COMP Primary Device 3" PAR

Time/Flow/Storm ICE/REF. Scaling Constant Max. Head 2.0'

Install Service Pull Sample Initiation 1000

Install Service Pull

Bottle #	Description/Comments
1.	FULL SLIGHTLY CLOUDY/SS
2.	
3.	
4.	
5.	
6	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space DUE

Work To Be Performed N/A

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Company Contact

Person Entering Space

Second Person (Outside Space)

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Clients Meter

Summary

Signature Mark Momsen

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client Koppers Outfall West Date 9/17/95

Name T. Reising Arrival Time 12:30 Departure Time 1:05

Sampler # 2710 Meter # 3210

Battery # A.C. Battery # Power Pack Int. → 49579130

# of Samples 84 RDL. 1.033 ACTL. 1.03

Sampling Interval 9 TF. 363779080 / Hand → 88217060

Multiplex Comp Primary Device 3" Pans Flume

Time/~~Flow~~/Storm ICE/~~REF.~~ Scaling Constant _____ Max. Head 2.0

Install ~~Service~~ ~~Pull~~ Turn OFF Sample Initiation 1000

Install Service Pull

Bottle #	Description/Comments
1.	
2.	Full cloudy/grey
3.	
4.	
5.	grab cloudy grey
6.	
7.	
8.	
9.	
10.	Did not pick up sample
11.	in lab. there was no
12.	
13.	sample per Rob H.
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space _____

Work To Be Performed _____

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

_____ CF/GAL
_____ CF/GAL
_____ CF/GAL
_____ CF/GAL
_____ CF/GAL
_____ CF/GAL

Company Contact _____

Person Entering Space _____

Second Person (Outside Space) _____

Summary (*)

Clients Meter _____ Signature [signature]

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

C: KOPPERS

Outfall 1A

Date 9/20/95

Name R. CIOLINO

Arrival Time 11:58

Departure Time 12:23

Sampler # THEIRS

Meter # THEIRS

Battery # AC

Battery # AC

# of Samples 0

RDL. .851

ACTL. .83

Sampling Interval 9

TF. 8833622

Multiplex COMP

Primary Device 3" PARSHALL

Time/~~Flow~~/Storm ICE/~~REF~~.

Scaling Constant —

Max. Head 2.0

Install ~~Service~~ Pull

Sample Initiation 1000

Install ~~Service~~ Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	
5.	
6	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space N/A

Work To Be Performed

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Company Contact

Person Entering Space

Second Person (Outside Space)

Incoming Meters

CF/GAL

CF/GAL

CF/GAL

CF/GAL

CF/GAL

CF/GAL

Clients Meter

Summary OK

Signature Robert J. Ciolino

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client: KOPPERS
Outfall: 1A
Date: 9/20/95

Name: R. CIOLINO
Arrival Time: 12:48
Departure Time:

Sampler #: THEIRS
Meter #: THEIRS
Battery #: A/C
Battery #: A/C
# of Samples: 14
RDL: 1.034
ACTL: 1.04
Sampling Interval: 9
TF: 8840314
Multiplex: COMP
Primary Device: 3" PARSHALL
Time/Flow/Storm
ICE/REF.
Scaling Constant: —
Max. Head: 2.0
Install Service Pull
Sample Initiation: 1000
Install Service Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	FULL JUG
5.	
6	
7.	SL CLOUDY/SS
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space: N/A
Work To Be Performed:

Ventilation

Min					
CO					<35 PPM
H_2S					<10 PPM
SO_2					<4 PPM
LEL					<10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Company Contact:
Person Entering Space:
Second Person (Outside Space):

Incoming Meters
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Clients Meter:

Summary: OK

Signature: Robert J. Ciolino

ATTACHMENT 4
ANALYSIS AFTER INSTALLATION OF CARBON UNIT

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 9/28/95
Report Date: 9/27/95
Sample Received: 9/26/95

Sample Description: Wastewater Grab Effluent Outfall 9/26/95
Sample No.: 31675

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	<0.5	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	<0.5	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	100

Leah E. Zeller

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 9/28/95
Report Date: 9/27/95
Sample Received: 9/26/95

Sample Description: Wastewater Grab Effluent Outfall 9/26/95
Sample No.: 31675

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.7	<0.7	0.7	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	<0.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zehr

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Naphthalene	<0.13	<0.13	0.13	10
14. Hexachlorobutadiene	<0.5	<0.5	0.5	10
15. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
16. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
17. Acenaphthylene	<0.13	<0.13	0.13	10
18. Dimethylphthalate	<0.7	<0.7	0.7	10
19. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
20. Acenaphthene	<0.13	<0.13	0.13	10
21. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
22. Fluorene	<0.13	<0.13	0.13	10
23. Diethylphthalate	<1.0	<1.0	1.0	10
24. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10

Leah E. Zikes

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
25. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
26. Diphenylhydrazine	<1.6	<1.6	1.6	10
27. 4-Bromophenyl phenyl ether	<0.6	<0.6	0.6	10
28. Hexachlorobenzene	<1.9	<1.9	1.9	10
29. Phenanthrene	<0.13	<0.13	0.13	10
30. Anthracene	<0.13	<0.13	0.13	10
31. Di-n-butylphthalate	<0.5	<0.5	0.5	10
32. Fluoranthene	<0.13	<0.13	0.13	10
33. Benzidine	<4.7	<4.7	4.7	50
34. Pyrene	<0.13	<0.13	0.13	10
35. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
36. Benzo(a)anthracene	<0.13	<0.13	0.13	10
37. Chrysene	<0.13	<0.13	0.13	10
38. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
39. Bis(2-ethylhexyl)phthalate	<2.5	<2.5	2.5	10
40. Di-n-octylphthalate	<4.7	<4.7	4.7	10
41. Benzo(b)fluoranthene	<0.13	<0.13	0.13	10
42. Benzo(k)fluoranthene	<0.13	<0.13	0.13	10
43. Benzo(a)pyrene	<0.13	<0.13	0.13	10
44. Indeno(1,2,3-cd)pyrene	<0.13	<0.13	0.13	10
45. Dibenzo(a,h)anthracene	<0.13	<0.13	0.13	10
46. Benzo(ghi)perylene	<0.13	<0.13	0.13	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zehr

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. Phenol	<0.4	<0.4	0.4	10
2. 2-Chlorophenol	<0.9	<0.9	0.9	10
3. 2-Nitrophenol	<1.8	<1.8	1.8	10
4. 2,4-Dimethylphenol	<0.5	<0.5	0.5	10
5. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
6. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
7. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
8. 2,4-Dinitrophenol	<3.1	<3.1	3.1	10
9. 4-Nitrophenol	<2.4	<2.4	2.4	10
10. 4,6-Dinitro-o-cresol	<3.0	<3.0	3.0	10
11. Pentachlorophenol	<4.1	<4.1	4.1	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/29/95
Sample Received: 9/26/95

Sample Description: Wastewater Effluent Outfall
Sample No.: 31675

Fats, Oil & Grease	<4
Hexavalent Chromium	<0.05
Total Suspended Solids	8
Cadmium	<0.02
Chromium	<0.10
Copper	<0.10
Iron	<0.10
Lead	0.38
Mercury	<0.0003
Nickel	<0.10
Silver	<0.20
Zinc	0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

ATTACHMENT 1
PERFORMANCE BEFORE REGENERATIVE THERMAL OXIDIZERS

Laboratory Data Sheets
for Sampling Period
February 21-March 1, 1994

West Sewer 1A

USER CHARGE CERTIFIED SAMPLING REPORTING STATEMENT RD 920

1. Name: Koppers Industries, Inc.
2. Address: 3900 S. Laramie Ave. / Chicago, IL 60650
3. Federal Tax Number:
4. Outlet Number: West
5. Primary Device: 3" Parsh
6. Sampling Data: Samples Collected By: JH,MM,DC,RC,MW,GJ

Sample Date and Day of Week	6b. Sample Times and Duration	6c. Metered Intake	6d. Metered Discharge	6e. Date Received	6f. Date Analyzed BOD	6f. Date Analyzed SS	6g. BOD--mg/L Dilution/Result	6h SS--mg
Tues-Wed 2/22-23/94	from09:15 AM to 09:45 AM	615,914	547,900	02/23	beg 02/23 end 02/28	02/23	12/ 8130	180
Wed-Thurs 2/23-24/94	from09:45 AM to 10:50 AM	615,914	527,000	02/24	beg 02/24 end 03/01	02/24	12/ 6960	180
Thurs-Fri 2/24-25/94	from10:50 AM to 12:40 PM	615,914	591,500	02/25	beg 02/25 end 03/02	02/25	16/ 6720	194
Fri-Sat 2/25-26/94	from12:40 PM to 11:30 AM	615,914	535,300	02/26	beg 02/26 end 03/03	02/26	16/ 6250	128
Sat-Sun 2/26-27/94	from11:30 AM to 10:30 AM	615,914	427,600	02/27	beg 02/27 end 03/04	02/27	12/ 8350	164
Sun-Mon 2/27-28/94	from10:30 AM to 11:00 AM	615,914	445,400	02/28	beg 02/28 end 03/05	02/28	12/ 8400	150
Mon-Tues 2/28-3/1/94	from11:00 AM to 11:00 AM	615,914	456,600	03/01	beg 03/01 end 03/06	03/01	12/ 8260	236
7. Avg. flows (for intake & discharge) & flow-weighted analytical data for BOD & SS.		615,914	504,471	Samples taken every 11,000 Samples kept cool by ice			7512	176

8. BOD Seed Source: MSD Treatment Plant West - Southwest (Stickney)
9. Exceptions: Incoming water meters read on first and last day of test due to confined-Space entry
10. Name of Analyst: J.Stellwag
11. Analyst's Supervisor: Gary Wiggenhauser

Certification. The undersigned has examined this statement and its supporting documentation, and he/she certifies that the methods used in the sampling analyses reported thereon were conducted in accordance with the latest edition of Standard Methods for the Examination of Water and Wastewater, and that the information contained theron to the best of his/her knowledge is true, correct, and complete.

User/Company Name: Koppers Industries, Inc. Date:
Signature of Officer/Owner Telephone:
Officer's Name and Title:
Consultant or Lab. Name: Environmental Monitoring & Technologies Date: 03/15/94
Signature of Officer/Owner Telephone: 708-967-6666
Office Name and Title: Keith Gray, Manager

THIS FORM MUST BE COMPLETED AND ATTACHED TO DOCUMENTATION WITH THE USER CHARGE ANNUAL CERTIFIED STATEMENT

FLOW-WEIGHTED CALCULATIONS (continued)

Date	Flow (gals)	BOD (mg/L)	SS (mg/L)	BOD (lbs)	SS (lbs)
2/22-23/94	547900	8130	180	37149.92	822.51
2/23-24/94	527000	6960	180	30590.45	791.13
2/24-25/94	591500	6720	194	33150.50	957.02
2/25-26/94	535300	6250	128	27902.51	571.44
2/26-27/94	427600	8350	164	29777.64	584.85
2/27-28/94	445400	8400	150	31202.94	557.20
2/28-3/1/94	456600	8260	236	31454.44	898.70
	3531300	53070.00	1232.00	221228.41	5182.85

Arithmetic Averages..... BOD (mg/L) 7581 SS(mg/L) 176

Flow-Weighted Averages..... BOD (mg/L) 7512 SS(mg/L) 176

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

92565

Koppers Industries, Inc.
3900 S. Laramie Ave.
Cicero, IL 60650

Report Date: 3/10/94
Sample Received: As Listed

Sample Description: 24 Hour Flow Proportion Composite - Outfall - West

Date	Sample No.:	BOD	Total Suspended Solids
2/22-23	74238	8130	180
2/23-24	74323	6960	180
2/24-25	74434	6720	194
2/25-26	74482	6250	128
2/26-27	74518	8350	164
2/27-28	74563	8400	150
2/28-3/1	74666	8620	236

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 17th Edition.

Gary W. Wing

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120158

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: As Listed

Sample Description: Wastewater Grab - West

Date	3/27	3/28	3/29	3/30	3/31	4/1	4/2
Sample No.	14069	14124	14225	14355	14529	14650	14703
Total Cyanide	0.10	0.12	0.14	0.19	0.13	0.18	0.12
Fats, Oil & Grease	137	142	55	132	249	420	65
pH (units)	6.05	5.99	5.82	5.77	5.73	5.84	5.97

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed [illegible]

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120157

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: As Listed

Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall

Date	3/27-28	3/28-29	3/29-30	3/30-31	3/31-4/1	4/1-2
Sample No.	14123	14224	14354	14528	14649	14702
Closed Cup Flash Point	N.M.	N.M.	N.M.	>180°F	>180°F	>180°F
Hexavalent Chromium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.02	<0.02	<0.02	<0.20	<0.20	<0.20
Chromium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	3.60	1.10	1.10	1.10	1.00	0.88
Lead	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Mercury	0.0005	0.0006	<0.0003	<0.0003	<0.0003	<0.0003
Nickel	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Silver	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Zinc	0.41	0.15	<0.50	0.14	0.13	0.12

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except [illegible]

Gary W. Weiss

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LABORATORY REPORT

120493

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/27/95

Sample Description: Wastewater three grab Composite West Outfall (3/27/95)
Sample No.: 14069

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	4.9	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	4.7	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	[illegible]	[illegible]	[illegible]	[illegible]
23. 1,1,2-Trichloroethane	[illegible]	[illegible]	[illegible]	[illegible]
24. 2-Chloroethyl vinyl ether	<[illegible]	<[illegible]	[illegible]	[illegible]

Paul E. Zelis

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LABORATORY REPORT

120493

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/27/95

Sample Description: Wastewater three grab Composite West Outfall (3/27/95)
Sample No.: 14069

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	5.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	7.6	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Riley

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LABORATORY REPORT

120492

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater three grab Composite West Outfall (3/27-28/95)
Sample No.: 14124

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	7.9	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	2.5	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	3.3	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. [illegible]	[illegible]	[illegible]	[illegible]	5
23. [illegible]	[illegible]	[illegible]	[illegible]	5
24. 2-Chloroethyl vinyl ether	<0.1	<0.1	[illegible]	[illegible]

Leah E. Zilber

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LABORATORY REPORT

120492

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater three grab Composite West Outfall (3/27-28/95)
Sample No.: 14124

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	4.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	5.4	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120276-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95)
West Outfall

Sample No.: 14122

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	182	<0.5	0.5	10
2. Acenaphthene	21	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	22	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	<2.5	<2.5	2.5	10
11. Phenathrene	29	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Paul E. Fuller

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LABORATORY REPORT

120276-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95)
West Outfall

Sample No.: 14122

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1,4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ether	[illegible]	[illegible]	[illegible]	[illegible]

Leah E. Zeller

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LABORATORY REPORT

120276-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95)
West Outfall

Sample No.: 14122

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zelin

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LABORATORY REPORT

120276

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95)
West Outfall

Sample No.: 14122

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<1.5	<0.08	1.5	7.5
PCB 1232	<1.5	<0.08	1.5	7.5
PCB 1016 (1242)	<1.5	<0.08	1.5	7.5
PCB 1248	<1.5	<0.08	1.5	7.5
PCB 1254	<0.5	<0.08	0.5	2.5
PCB 1260	<0.5	<0.08	0.5	2.5
(Total PCB)	<1.5	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zi...

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LABORATORY REPORT

120276-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/28/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/27-28/95)
West Outfall

Sample No.: 14122

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.2	<0.02	0.2	1.0
2. ß-BHC	<0.2	<0.03	0.2	1.0
3. Y-BHC (Lindane)	<0.2	<0.03	0.2	1.0
4. δ-BHC	<0.5	<0.03	0.5	2.5
5. Heptachlor	<0.5	<0.04	0.5	1.0
6. Aldrin	<0.5	<0.03	0.5	1.0
7. Heptachlor epoxide	<0.5	<0.02	0.5	1.0
8. Endosulfan I	<0.5	<0.03	0.5	1.0
9. Dieldrin	<0.5	<0.03	0.5	1.0
10. 4,4'-DDE	<0.5	<0.03	0.5	1.0
11. Endrin	<0.5	<0.10	0.5	1.0
12. Endosulfan II	<0.5	<0.05	0.5	1.0
13. Endrin aldehyde	<0.5	<0.15	0.5	1.0
14. 4,4'-DDD	<0.5	<0.04	0.5	1.0
15. Endosulfan sulfate	<0.5	<0.10	0.5	1.0
16. 4,4'-DDT	<0.5	<0.16	0.5	1.0
17. Methoxyclor	<0.5	<0.10	0.5	1.0
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.5	<0.26	0.5	2.5
21. Toxaphene	<1.0	<0.50	1.0	5.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Fred E. Zilli

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120495

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/29/95

Sample Description: Wastewater three grab Composite West Outfall (3/28-29/95)
Sample No.: 14225

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	3.5	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	0.9	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	3.1	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.6	<0.6	0.6	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<0.1	<0.1	0.1	5

Leah E. Zeber

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LABORATORY REPORT

120495

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/29/95

Sample Description: Wastewater three grab Composite West Outfall (3/28-29/95
Sample No.: 14225

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	3.8	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	4.	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zuber

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LABORATORY REPORT

120275-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/16/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95) West Outfall

Sample No.: 14223

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	91.5	<0.5	0.5	10
2. Acenaphthene	<0.5	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	14.5	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	<2.5	<2.5	2.5	10
11. Phenathrene	7.2	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeller

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LABORATORY REPORT

120275-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1,4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<1420	<9.5	1420	3000
15. 2-Chloronaphthalene	<45	<0.3	45	1500
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ehter	<0.6	<0.6	0.6	10

Fred E. Zikes

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

120275-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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FAX: 708/967-6735

LABORATORY REPORT

120275-C

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<250	<1.7	250	1500
4. p-Chloro-m-cresol	<330	<2.2	330	1500
5. 2,4,6-Trichlorophenol	<330	<2.2	330	1500
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

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LABORATORY REPORT

120275

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.7	<0.08	0.7	3.5
PCB 1232	<0.7	<0.08	0.7	3.5
PCB 1016 (1242)	<0.7	<0.08	0.7	3.5
PCB 1248	<0.7	<0.08	0.7	3.5
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.7	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120275-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/29/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/28-29/95)
West Outfall

Sample No.: 14223

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.2	<0.02	0.2	1.0
2. ß-BHC	<0.2	<0.03	0.2	1.0
3. Y-BHC (Lindane)	<0.2	<0.03	0.2	1.0
4. δ-BHC	<0.2	<0.03	0.2	1.0
5. Heptachlor	<0.05	<0.04	0.05	1.0
6. Aldrin	<0.2	<0.03	0.2	1.0
7. Heptachlor epoxide	<0.04	<0.02	0.04	0.1
8. Endosulfan I	<0.03	<0.03	0.03	0.1
9. Dieldrin	<0.03	<0.03	0.03	0.1
10. 4,4'-DDE	<0.03	<0.03	0.03	0.1
11. Endrin	<0.10	<0.10	0.10	0.1
12. Endosulfan II	<0.05	<0.05	0.05	0.1
13. Endrin aldehyde	<0.15	<0.15	0.15	0.1
14. 4,4'-DDD	<0.04	<0.04	0.04	0.1
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.1
16. 4,4'-DDT	<0.16	<0.16	0.16	0.2
17. Methoxyclor	<0.10	<0.10	0.1	0.2
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.26	<0.26	0.26	0.5
21. Toxaphene	<0.50	<0.50	0.50	1.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120844

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/19/95
Sample Received: 3/30/95

Sample Description: Wastewater Three Grab Composite West Outfall (3/29-30/95)
Sample No.: 14355

Compounds	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL)	Regulatory Limit
1. Vinyl Chloride	<39	<10	10	77
2. Chloroethane	<44	<10	10	87
3. Methylene chloride	<14	<10	10	28
4. 1,1-dichloroethane	<8	<10	10	17
5. Chloroform	<44	<10	10	88
6. 1,2-dichloroethane	<71	<10	10	142
7. Trans-1,2-dichloroethane	<10	<10	10	20
8. 1,1,1-trichloroethane	<8	<10	10	17
9. Carbon tetrachloride	<56	<10	10	112
10. 1,2-dichloropropane	<77	<10	10	155
11. Trichloroethene	<10	<10	10	21
12. 1,1,2-trichloroethane	<12	<10	10	25
13. Benzene	<22	<10	10	45
14. Tetrachloroethene	<20	<10	10	41
15. Toluene	<11	<10	10	22
16. Chlorobenzene	<56	<10	10	112
17. Ethylbenzene	<56	<10	10	112
18. 1,1-dichloroethylene	<8	<10	10	17
19. Methyl chloride	<43	<10	10	87
20. 1,3-dichlorobenzene	<56	<10	10	112
21. 1,4-dichlorobenzene	<56	<10	10	112
22. 1,2-dichlorobenzene	<77	<10	10	155
23. 1,3-dichloropropylene	<77	<10	10	155
24. Hexachloroethane	<77	<10	10	155

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LABORATORY REPORT

120844

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/19/95
Sample Received: 3/30/95

Sample Description: Wastewater Three Grab Composite West Outfall (3/29-30/95)
Sample No.: 14355

Compounds	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL)	Regulatory Limit
25. Nitrobenzene	<883	<10	10	1767
26. 2-nitrophenol	<25	<10	10	51
27. 4-nitrophenol	<64	<10	10	128
28. 1,2,4-trichlorobenzene	<77	<10	10	155
29. Hexachlorobutadiene	<56	<10	10	112
30. 4,6-dinitro-o-cresol	<31	<10	10	62
31. Hexachlorobenzene	<77	<10	10	155
32. Total Cyanide (ppm)	<166	<10	10	332
33. Total Lead (ppm)	<126	<10	10	253
34. Total Zinc (ppm)	<415	<10	10	830

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 17th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeller

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LABORATORY REPORT

120273-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/16/95
Sample Received: 3/30/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	<0.5	<0.5	0.5	10
2. Acenaphthene	<330	<0.5	330	1500
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	157.	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	7.8	<2.5	2.5	10
11. Phenathrene	7.	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120273-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/30/95

Sample Description: Wastwater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<142	<9.5	142	3000
15. 2-Chloronaphthalene	<45	<0.3	45	1500
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ehter	<0.6	<0.6	0.6	10

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LABORATORY REPORT

120273-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/30/95

Sample Description: Wastwater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120273-C

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/30/95

Sample Description: Wastwater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<250	<1.7	250	1500
4. p-Chloro-m-cresol	<330	<2.2	330	1500
5. 2,4,6-Trichlorophenol	<330	<2.2	330	1500
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120273

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/30/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<1.5	<0.08	1.5	7.5
PCB 1232	<1.5	<0.08	1.5	7.5
PCB 1016 (1242)	<1.5	<0.08	1.5	7.5
PCB 1248	<1.5	<0.08	1.5	7.5
PCB 1254	<0.2	<0.08	0.2	1.0
PCB 1260	<0.2	<0.08	0.2	1.0
(Total PCB)	<1.5	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120273-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/30/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/29-30/95)
West Outfall

Sample No.: 14353

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.05
2. ß-BHC	<0.03	<0.03	0.03	0.05
3. Y-BHC (Lindane)	<0.06	<0.03	0.06	0.05
4. δ-BHC	<0.05	<0.03	0.05	0.05
5. Heptachlor	<0.08	<0.04	0.08	0.05
6. Aldrin	<0.03	<0.03	0.03	0.05
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.1
8. Endosulfan I	<0.03	<0.03	0.03	0.1
9. Dieldrin	<0.03	<0.03	0.03	0.1
10. 4,4'-DDE	<0.03	<0.03	0.03	0.1
11. Endrin	<0.10	<0.10	0.10	0.1
12. Endosulfan II	<0.05	<0.05	0.05	0.1
13. Endrin aldehyde	<0.15	<0.15	0.15	0.1
14. 4,4'-DDD	<0.04	<0.04	0.04	0.1
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.1
16. 4,4'-DDT	<0.16	<0.16	0.16	0.2
17. Methoxyclor	<0.10	<0.10	0.1	0.2
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.26	<0.26	0.26	0.5
21. Toxaphene	<0.50	<0.50	0.50	1.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120494

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/31/95

Sample Description: Wastewater three grab Composite West Outfall (3/30-31/95)
Sample No.: 14529

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	4.4	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	1.4	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	[illegible]	[illegible]	[illegible]	5
23. 1,1,2-Trichloroethane	[illegible]	[illegible]	[illegible]	5
24. 2-Chloroethyl vinyl ether	<0.1	<0.1	[illegible]	[illegible]

Fred E. [illegible]

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120494

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 3/31/95

Sample Description: Wastewater three grab Composite West Outfall (3/30-31/95)
Sample No.: 14529

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	0.9	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	2.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeller

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LABORATORY REPORT

120274-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/16/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	54.	<0.5	0.5	10
2. Acenaphthene	<0.5	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	3.	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	0.75	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	3.8	<2.5	2.5	10
11. Phenathrene	4.7	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120274-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ehter	<0.6	<0.6	0.6	10

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LABORATORY REPORT

120274-B

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120274-C

Koppers Company, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/14/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120274

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95)
West Outfall

Sample No.: 14527

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<0.92	<0.08	0.92	9.0
PCB 1232	<0.92	<0.08	0.92	9.0
PCB 1016 (1242)	<0.92	<0.08	0.92	9.0
PCB 1248	<0.92	<0.08	0.92	9.0
PCB 1254	<0.08	<0.08	0.08	1.0
PCB 1260	<0.08	<0.08	0.08	1.0
(Total PCB)	<0.92	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120274-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 3/31/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/30-31/95) West Outfall

Sample No.: 14527

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.02	<0.02	0.02	0.05
2. ß-BHC	<0.03	<0.03	0.03	0.05
3. Y-BHC (Lindane)	<0.03	<0.03	0.03	0.05
4. δ-BHC	<0.03	<0.03	0.03	0.05
5. Heptachlor	<0.04	<0.04	0.04	0.05
6. Aldrin	<0.03	<0.03	0.03	0.05
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.1
8. Endosulfan I	<0.03	<0.03	0.03	0.1
9. Dieldrin	<0.03	<0.03	0.03	0.1
10. 4,4'-DDE	<0.03	<0.03	0.03	0.1
11. Endrin	<0.10	<0.10	0.10	0.1
12. Endosulfan II	<0.05	<0.05	0.05	0.1
13. Endrin aldehyde	<0.15	<0.15	0.15	0.1
14. 4,4'-DDD	<0.04	<0.04	0.04	0.1
15. Endosulfan sulfate	<0.10	<0.10	0.10	0.1
16. 4,4'-DDT	<0.16	<0.16	0.16	0.2
17. Methoxyclor	<0.10	<0.10	0.1	0.2
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.26	<0.26	0.26	0.5
21. Toxaphene	<0.50	<0.50	0.50	1.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120491

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/1/95

Sample Description: Wastewater three grab Composite West Outfall (3/31-4/1)
Sample No.: 14650

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	3.8	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	1.4	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	[illegible]	[illegible]	[illegible]	5
23. 1,1,2-Trichloroethane	[illegible]	[illegible]	[illegible]	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	<100

Leah E. Zeller

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LABORATORY REPORT

120491

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/1/95

Sample Description: Wastewater three grab Composite West Outfall (3/31-4/1)
Sample No.: 14650

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	1.2	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR126.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120272-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/11/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95) West Outfall

Sample No.: 14648

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	121	<0.5	0.5	10
2. Acenaphthene	<0.5	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	8.7	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	4.2	<2.5	2.5	10
11. Phenathrene	5.6	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

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LABORATORY REPORT

120272-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/11/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95
West Outfall

Sample No.: 14648

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Fred E. Zeller

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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FAX: 708/967-6735

LABORATORY REPORT

120272-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/11/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95
West Outfall

Sample No.: 14648

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1,4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ether	<[illegible]	<[illegible]	[illegible]	[illegible]

Leah E. Zilber

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LABORATORY REPORT

120272-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/11/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95)
West Outfall

Sample No.: 14648

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeller

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120272

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95)
West Outfall

Sample No.: 14648

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<1.5	<0.08	1.5	7.5
PCB 1232	<1.5	<0.08	1.5	7.5
PCB 1016 (1242)	<1.5	<0.08	1.5	7.5
PCB 1248	<1.5	<0.08	1.5	7.5
PCB 1254	<0.2	<0.08	0.2	1.0
PCB 1260	<0.2	<0.08	0.2	1.0
(Total PCB)	<1.5	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Fred E. Zeller

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120272-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 4/1/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (3/31-4/1/95)
West Outfall

Sample No.: 14648

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.08	<0.02	0.08	0.4
2. ß-BHC	<0.08	<0.03	0.08	0.4
3. Y-BHC (Lindane)	<0.08	<0.03	0.08	1.5
4. δ-BHC	<0.08	<0.03	0.08	1.5
5. Heptachlor	<0.2	<0.04	0.2	1.0
6. Aldrin	<0.2	<0.03	0.2	1.0
7. Heptachlor epoxide	<0.2	<0.02	0.2	1.0
8. Endosulfan I	<0.2	<0.03	0.2	1.0
9. Dieldrin	<0.2	<0.03	0.2	1.0
10. 4.4'-DDE	<0.2	<0.03	0.2	1.0
11. Endrin	<0.4	<0.10	0.4	2.0
12. Endosulfan II	<0.2	<0.05	0.2	1.0
13. Endrin aldehyde	<0.2	<0.15	0.2	1.0
14. 4.4'-DDD	<0.08	<0.04	0.08	0.5
15. Endosulfan sulfate	<0.2	<0.10	0.2	1.0
16. 4.4'-DDT	<0.2	<0.16	0.2	1.0
17. Methoxyclor	<0.2	<0.10	0.2	1.0
18. 2.4.-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.5	<0.26	0.5	2.5
21. Toxaphene	<1.0	<0.50	1.0	5.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zelasi

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Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120490

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater three grab sample Composite West Outfall (4/1-2
Sample No.: 14703

Compound Purgeables	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.5	<0.5	0.5	5
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	2.4	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	2.0	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. [illegible]	[illegible]	[illegible]	[illegible]	5
23. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24. 2-Chloroethyl vinyl ether	[illegible]	[illegible]	[illegible]	[illegible]

Leah E. [illegible]

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
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LABORATORY REPORT

120490

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater three grab sample Composite West Outfall (4/1-2
Sample No.: 14703

Compound Purgeables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.5	<0.5	0.5	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	2.8	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zelis

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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LABORATORY REPORT

120271-C

Koppers Industries. Inc.
3900 S. Laramie Avenue
Chicago, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

Compound	Concentration Found IN Sample	Concentration Found IN Blank	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Napthalene	752	<0.5	0.5	10
2. Acenaphthene	<0.5	<0.5	0.5	10
3. Diethylphthalate	<1.0	<1.0	1.0	10
4. Dimethylphthalate	<0.7	<0.07	0.7	10
5. Fluorene	<0.2	<0.2	0.2	10
6. Anthracene	<0.5	<0.5	0.5	10
7. Di-n-butylphthalate	<0.5	<0.5	0.5	10
8. Fluoranthene	<0.5	<0.5	0.5	10
9. Pyrene	<0.5	<0.5	0.5	10
10. Bis(2-ethythexyl) phthalate	<2.5	<2.5	2.5	10
11. Phenathrene	<0.2	<0.2	0.2	10

All results expressed as ppb unless otherwise indicated.

Analyses performed in accordance with 40 CFR Part 136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeller

ENVIRONMENTAL
MONITORING AND
TECHNOLOGIES, INC.

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LABORATORY REPORT

120271-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	 Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1,4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Hexachlorobutadiene	<0.5	<0.5	0.5	10
14. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
15. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
16. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
17. Acenaphthylene	<0.3	<0.3	0.3	10
18. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
19. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10
20. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
21. Diphenylhydrazine	<1.6	<1.6	1.6	10
22. 4-Bromophenyl phenyl ether	[illegible]	[illegible]	[illegible]	[illegible]

Leah E. Zeber

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

120271-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

Compound Base/Neutral Extractables	Concentration Found IN Sample (ppb)	Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
23. Hexachlorobenzene	<1.9	<1.9	1.9	10
24. Benzidine	<4.7	<4.7	4.7	50
25. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
26. Benzo(a)anthracene	<2.1	<2.1	2.1	10
27. Chrysene	<1.4	<1.4	1.4	10
28. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
29. Di-n-octylphthalate	<4.7	<4.7	4.7	10
30. Benzo(b)fluoranthene	<4.7	<4.7	4.7	10
31. Benzo(k)fluoranthene	<3.7	<3.7	3.7	10
32. Benzo(a)pyrene	<3.2	<3.2	3.2	10
33. Indeno(1,2,3-cd)pyrene	<4.6	<4.6	4.6	10
34. Dibenzo(a,h)anthracene	<5.6	<5.6	5.6	10
35. Benzo(ghi)perylene	<5.0	<5.0	5.0	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeller

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

120271-D

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/13/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/l (ppb)	Quantitation Limit ug/l (ppb)
1. 2-Chlorophenol	<0.9	<0.9	0.9	10
2. 2-Nitrophenol	<1.8	<1.8	1.8	10
3. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
4. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
5. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
6. 2,4-Dinitrophenol	<9.8	<9.8	9.8	50
7. 4-Nitrophenol	<3.9	<3.9	3.9	50
8. 4,6-Dinitro-o-cresol	<8.6	<8.6	8.6	50
9. Pentachlorophenol	<7.3	<7.3	7.3	50

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

120271

Koppers Industries. Inc.
3900 S. Laramie Avenue
Cicero. IL 60650

Report Date: 4/10/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
PCB 1221	<1.5	<0.08	1.5	7.5
PCB 1232	<1.5	<0.08	1.5	7.5
PCB 1016 (1242)	<1.5	<0.08	1.5	7.5
PCB 1248	<1.5	<0.08	1.5	7.5
PCB 1254	<0.2	<0.08	0.2	1.0
PCB 1260	<0.2	<0.08	0.2	1.0
(Total PCB)	<1.5	<0.08	---	---

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeller

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
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LABORATORY REPORT

120271-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 4/10/95
Sample Received: 4/2/95

Sample Description: Wastewater 24 Hour Flow Proportion Composite (4/1-2/95)
West Outfall

Sample No.: 14701

Pesticides & Herbicides Single Peak	Concentration Found IN Sample (ppb)	Concentration Found IN Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. α-BHC	<0.08	<0.02	0.08	0.05
2. ß-BHC	<0.03	<0.03	0.03	0.05
3. Y-BHC (Lindane)	<0.1	<0.03	0.1	0.5
4. δ-BHC	0.6	<0.03	0.6	0.05
5. Heptachlor	<0.2	<0.04	0.2	0.05
6. Aldrin	<0.2	<0.03	0.2	0.05
7. Heptachlor epoxide	<0.02	<0.02	0.02	0.1
8. Endosulfan I	<0.05	<0.03	0.05	0.1
9. Dieldrin	<0.2	<0.03	0.2	0.1
10. 4,4'-DDE	<0.2	<0.03	0.2	0.1
11. Endrin	<0.4	<0.10	0.4	0.1
12. Endosulfan II	<0.1	<0.05	0.1	0.1
13. Endrin aldehyde	<0.2	<0.15	0.2	0.1
14. 4,4'-DDD	<0.08	<0.04	0.08	0.1
15. Endosulfan sulfate	<0.2	<0.10	0.2	0.1
16. 4,4'-DDT	<0.2	<0.16	0.2	0.2
17. Methoxyclor	<0.2	<0.10	0.21	0.2
18. 2,4,-D	<20.0	<2.0	20.0	100.0
19. Silvex	<20.0	<2.0	20.0	100.0
Multiple Peak				
20. Chlordane	<0.5	<0.26	0.5	2.5
21. Toxaphene	<1.0	<0.50	1.0	5.0

Analyses performed using Method No. 608 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeller

Client Koppers Date Started: 3/27/95 Date Finished 4-3-95

Date & Time	Initials	Effluent Meter Theis 3" Parshall	ACL. RDL.	Effluent Meter	ACL. RDL.	Effluent Meter	ACL. RDL.	Effluent Meter	ACL. RDL.	Effluent Meter	ACL. RDL.	Total Effluent (Gal)	Tot Incon (Ga
3/27 12:45	JR	7922739 (00)	.96 .947										
3/28 1:45	JR	678,700 7929926 (00)	1.29 1.275									698,700	
3/29 1:45	JR	535,300 7935079 (00)	.70 .711									535,300	
3/30 1:00	JR	413,000 7939209 (00)	.77 .776									413,000	
3/31 12:45	JR	452,900 7943730 (00)	.78 .774									452,900	
4/1 1:40	SI	508,300 7948821 (00)	.72 .727									508,300	
4/2 1:20	SI	430,500 7953126 (00)	1.01 1.015									430,500	
4/3 1:30	RC MM	436,200 7957488 (00)	1.00 1.024									436,200	

* Incomming Meters on Seperate Sheet

Incoming Meter Flow Worksheet

Client: Koppers Date Started: 3/27/95 Date Finished: 4-3-95

Date & Time	Initials	Incoming Meter # Tar High CF ~~Gal~~ ( )	Incoming Meter # Tar Low CF ~~Gal~~ ( )	Incoming Meter # PQ2 CF ~~Gal~~ ( )	Incoming Meter # PA 1 CF ~~Gal~~ ( )	Incoming Meter # Fin CF Gal ( )	Incoming Meter # CF Gal ( )	Incoming Meter # CF Gal ( )	Total Incoming (Gal)	Total Out (Gal)
3/27 12:45	VR	* 580906(00)	182013(0)	0	207087(00)	180(000)				
3/28 1:45	JR									
3/29 1:45	JR									
3/30	JR									
3/31	JR									
4/1	SI									
4/2	SI									
4/3	RC MM	581200(00)	191024(0)	1752100	207807(00)	209(000)				
TOTALS		294,000	90,110	1,752,100	72,000	296,000 =			2,501,210	3,474,900

Outgoing Meters on Seperate Sheet

* [illegible]

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client: Koppers
Outfall: West
Date: 3-29-95

Name: J. Romeis
Arrival Time: 12:25
Departure Time: 1:15

Sampler #: Theirs
Meter #: Theirs

Battery #: AC
Battery #: AC

# of Samples: —
RDL: .947
ACTL: .96

Sampling Interval: 9
TF: 7922739 (00)

Multiplex: Comp
Primary Device: 3" Parshall

Time/Flow/Storm ICE/REF.
Scaling Constant: —
Max. Head: 2.0

Install Service Pull
TURN-ON
Sample Initiation: 1000

Install Service Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space: DNE

Work To Be Performed:

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Hach will give EMT incomings for beginning & ending of test.

Clients Meter

Company Contact:
Person Entering Space:
Second Person (Outside Space):

Summary: Ok. * Took grabs.

Signature: J. Romeis

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client Koppers Outfall West Date 3-28-95

Name J. Romeis Arrival Time 1:20 Departure Time 2:00

Sampler # Theirs Meter # Theirs

Battery # AC Battery # AC

# of Samples 77 RDL. 1.278 ACTL. 1.29

Sampling Interval 9 TF. 7929726

Multiplex Comp Primary Device 3" Parshall

Time/Flow/Storm (CE/REF.) Scaling Constant — Max. Head 2.0

Install Service Pull Sample Initiation 1000

Install Service Pull

Bottle # Description/Comments

1.
2.
3.
4. Jug Full
5.
6.
7.
8. Cloudy, dark, 55
9.
10.
11.
12.
13.
14. * Attached one of EMT's roll-up
15. assemblies to their meter.
16.
17. Brought theirs (roll-up) in for repair
18. or to be looked at. Gave to
19. Darrin Gomez.
20.
21.
22.
23.
24.

Confined Space Entry Permit

Type of Confined Space

Work To Be Performed

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 5 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact

Person Entering Space

Second Person (Outside Space)

Summary OK *

Clients Meter Signature J. Romeis

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client Koppers
Outfall West
Date 3-29-95
Name J. Romeis
Arrival Time 1:15
Departure Time 2:00
Sampler # Theirs
Meter # Theirs
Battery # AC
Battery # AC
# of Samples 59
RDL. .711
ACTL. .70
Sampling Interval 9
TF. 7935079 (oc)
Multiplex Comp
Primary Device 3" Parshall
Time/Flow/Storm ICE/REF.
Scaling Constant —
Max. Head 2.0
Install Service Pull
Sample Initiation 1000
Install Service Pull

Bottle # Description/Comments

1.
2.
3.
4.
5. Jug 3/4 Full
7.
8.
9. Cloudy, dark, SS
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.
22.
23.
24.

Confined Space Entry Permit

Type of Confined Space DNE
Work To Be Performed

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters
m 3/27 given 3/27 from CF/GAL
Rob Hargh CF/GAL
High → 580906 (oc) CF/GAL
Low → 192013 (o) CF/GAL
12 → 0 CF/GAL
41 → 207007 (oc) CF/GAL
FM → 1801000
Clients Meter

Company Contact
Person Entering Space
Second Person (Outside Space)

Summary OK

Signature J. Romeis

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client Koppers
Outfall West
Date 3-30-95
Name J. Romers
Arrival Time 12:15
Departure Time 1:00
Sampler # Theis
Meter # Theis
Battery # AC
Battery # AC
# of Samples 45
RDL. .776
ACTL. .77
Sampling Interval 9
TF. 7939209 (00)
Multiplex Comp
Primary Device 3" Parshall
Time/Flow/Storm
IOE/REF.
Scaling Constant —
Max. Head 2.0
Install Service Pull
Sample Initiation 1000
Install Service Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	
5.	
6.	
7.	Jug ½ Full
8.	
9.	
10.	Cloudy, SS, ~~SM~~
11.	
12.	DARK
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space DNE

Work To Be Performed

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact
Person Entering Space
Second Person (Outside Space)

Summary

Client Meter

Signature J. Romers

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client: Koppers
Outfall: 3-31-95
Date: West
Name: J. Romers
Arrival Time: 12:10
Departure Time: 12:40
Sampler #: Theirs
Meter #: Theirs
Battery #: AC
Battery #: AC
# of Samples: 50
RDL: .774
ACTL: .78
Sampling Interval: 9 → 8 → 7
TF: 7943738 (00)
Multiplex: Comp
Primary Device: 3" Parshall
Time/Flow/Storm
ICE/REF.
Scaling Constant: —
Max. Head: 2.0
Sample Initiation: 1600

Install Service Pull

Install Service Pull

Bottle # Description/Comments

1.
2.
3.
4.
6. Jug ½ Full
7.
8.
9.
10. Cloudy, dark, SS
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.
22.
23.
24.

Confined Space Entry Permit

Type of Confined Space: DNE
Work To Be Performed: —

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact
Person Entering Space
Second Person (Outside Space)

Summary: OK Did monthly cal of all meters. Did not pull west pigeon

Clients Meter

Signature: J. Romers

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client Koppers
Outfall West
Date 4/1/95

Name S. Grael
Arrival Time 1:40
Departure Time 2:10

Sampler # 2710 (Hours)
Meter # 3210 (Hours)

Battery # AC
Battery # AC

# of Samples 70
RDL. .727
ACTL. .72

Sampling Interval 7
TF. 7948821 (00)

Multiplex Composite
Primary Device 3" Parshall

Time/Flow/Storm ICE/REF.
Scaling Constant —
Max. Head 2.0

Install Service Pull
Sample Initiation 1000

Install Service Pull

Bottle # Description/Comments

1.
2.
3.
4. Jug 2/3 full Cloudy - brown (dark)
5.
6. w/ S.S.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.
22.
23.
24.

Confined Space Entry Permit

Type of Confined Space Did not enter.

Work To Be Performed

Ventilation					
Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact
Person Entering Space
Second Person (Outside Space)

Summary Good sample [illegible] FOG, CN, TPH [illegible] and VOCs.

Clients Meter

Signature [illegible]

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
3100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client: Koppers
Outfall: West
Date: 4/2 [illegible]
Name: J. Brad
Arrival Time: 1:20
Departure Time: 1:40
Sampler #: 2710 (Hain)
Meter #: 3210 (Hain)
Battery #: Ac
Battery #: Ac
# of Samples: 61
RDL: 1.015
ACTL: 1.01
Sampling Interval: 7
TF: 7953126 (00)
Multiplex: Composite
Primary Device: 3" Parshall
Time/Flow/Storm
ICE/REF
Scaling Constant: —
Max. Head: [illegible]
Install Service Pull
Sample Initiation: 1000
Install Service Pull

Bottle #	Description/Comments
1.	
2.	
3.	
4.	
5	
6.	
7.	Jug 3 full Cloudy-dark w/SS
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space: DNE

Work To Be Performed:

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters

CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact:
Person Entering Space:
Second Person (Outside Space):

Summary: [illegible]

Clients Meter

Signature: [illegible]

ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.
8100 N. AUSTIN AVE. 708-967-6666
MORTON GROVE, IL 60053 FAX 708-967-6735

Client: KOPPERS
Outfall: 1A
Date: 4/3/95

Name: R. CIOCINO / M. MAMSEN
Arrival Time: 1:10 PM
Departure Time: 1:35 PM

Sampler #: THEIRS
Meter #: THEIRS

Battery #: PP
Battery #: PP

# of Samples: 65
RDL: 1.024
ACTL: 100

Sampling Interval: 7
TF: 7957488

Multiplex: COMP
Primary Device: 3" PARSHALL

Time/~~Flow~~/Storm
ICE/~~REF~~
Scaling Constant: —
Max. Head: 2.0

Install ~~Service~~ Pull
Sample Initiation: 1000
Install ~~Service~~ Pull

Bottle #	Description/Comments
1.	
2.	
3.	1/2 JUG FULL
4.	
5.	
6.	CLOUDY
7.	BLACKISH
8.	
9.	SS
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	

Confined Space Entry Permit

Type of Confined Space
Work To Be Performed

Ventilation

Min					
CO					< 35 PPM
H_2S					< 10 PPM
SO_2					< 4 PPM
LEL					< 10%
O_2					19.5% - 23%

Explanation/Safety Equip. Used:

Incoming Meters
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL
CF/GAL

Company Contact
Person Entering Space
Second Person (Outside Space)

Summary OK - TURNED OFF

Clients Meter

Signature Robert J. Ciocino

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ____-____-____ COC #: 16905

Company: Kappes Industries
Address:
Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: PSGS

Sample Type: Container Type:
1. Water — P - Plastic
2. Soil — G - Glass
3. Sludge — V - VOC
4. Oil
5. Waste
Other: _____

Preservative:
1. None 3. HNO3
2. H2SO4 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	SVOC + PCB, Pest, Herb	Arsenic + Barium	FCC, CN, OH, VOC **												Comments
West-1R (Kappes)	1	32oz.	G	6	4/2/95	2P	1	14701	X							1200	2	71					* SVOC includes Halogenated dimethyl ether, 1,4-Naphthoquinone, pyridine, methyl methacrylate, methyl methanesulfonate, ethyl methanesulfonate.
West-1R	↓	↓	↓	2		↓	3	14702		X													
West-Sub/VOC	↓	↓/40ml	↓/V	2/3		↓	HCL/4	11703			X												** VOC includes ...

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Received By:	Date:	Wilness:	TURNAROUND TIME
[signature]	4-2-95		-- --		☐ RUSH
	Time: 8:10		Time: :		___day turnaround
Relinquished By:	Date: -- --	Received For Lab By:	Date: 4-2-95		☑ ROUTINE
	Time: :	[signature]	Time: 8:16		

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Reco

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 17076

Company: Koppers Industries
Address:

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: Rob Harsh
Project ID / Location:

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste
Other:

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	agg B metals, Ag, CrSF	SVOC (Malin acid as dimethyl)	ester 1,4-naphthoquinone	phtalic acid as dimethyl ester	PCB/Pest/Herb	FOG CN-PH, VOC (incl. Xylene)									Comments
West - FPC (Jeffers)	1	32 oz.	G	6	4/1/95	2 P		14648	X	X	X	X	X										1,2,3,4,5,6,7,8
West - FPC (normal)	↓	↓	G	2	↓	↓		8 47	X														
West - Grab/VOC	↓	32oz/40ml	G/V	2/3	↓	↓		14650						X									

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 4-1-95 Time: 5:00	Received By:	Date: -- -- Time: :	Witness:	TURNAROUND TIME
[signature]					☐ RUSH ___day turnaround ☒ ROUTINE
Relinquished By:	Date: -- -- Time: :	Received For Lab By: [signature]	Date: 4/1/95 Time: 5:10		

MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16940

Company: Koppers
Address:

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: _____

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste
Other: _____

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PCB/PEST/HERB	SVOC (includes Maleic)	Acid as dimethylester	1,4-Naphthoquinone	phthalic acid as dimethylester	App B Metals	Ag	Cd+6	FOG, pH	CN-	VOC's (include Xylene)		Comments
West-FPC-Teflon	2	Qt	G	6	3/31/95			14527	x	x	x	x	x	x	x	x					120274
↓	↓	↓	↓	2	↓			14528							x	x	x				
- GRAB	↓	↓	↓	2	↓			14529											x	x	120494
↓ - ↓	↓	40mL	↓	3	↓															x	

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 3-31-95 Time: 12:31	Received By:	Date: 3-31-95 Time: 12:30	Witness:	TURNAROUND TIME
[signature]		[signature]			☐ RUSH ___day turnaround
Relinquished By: [signature]	Date: 3-31-95 Time: 15:50	Received For Lab By: [signature]	Date: 3-31-95 Time: 435		☐ ROUTINE

SPECIAL INSTRUCTIONS:

MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16934

Company: Koppers
Address:

Phone #: (___)_____-_____ Fax #: (___)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: _____

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste Other: _____

Container Type: P - Plastic G - Glass V - VOC

Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PCB/PEST/HERB	SVOC (includes Malaic acid as dimethyl ester)	Acid as dimethyl ester	1,4-Naphthoquinone	phthalic acid as dimethyl ester	App. B Metals	Ag Cr+6		FOG, pH	CN-	VOC's (include Xylene)		Comments
West-FPC-Teflon	1	Qt	G	6	3/30/95			14353	+	+	+	+	+	+							3120273
West-FPC	↓	↓	↓	2	↓			14354							x	+	+				
West-Grab	↓	↓	↓	2	↓			14355											x	+	
West-Grab	↓	40 ml	↓	3	↓															x	

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Witness:
R. Harsh	3-30-95	1:00	V. Romeis	3-30-95	12:55	
J. Romeis	3-30-95	14:10	Received For Lab By: [signature]	3-30-95	14:56	

TURNAROUND TIME
☐ RUSH
___day turnaround
☐ ROUTINE

SPECIAL INSTRUCTIONS

MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16883

Company: Koppers
Address:

Phone #: (__)_____-_____ Fax #: (__)_____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: _____
Project ID / Location: _____

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste
Other: _____
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Container Type: P - Plastic G - Glass V - VOC

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PCB / PEST / HERB	SVOC (includes Maleic Acid as dimethyl ester)	1,4-Naphthoquinone	phthalic acid as dimethyl ester	Ag, Hex Cr, PPB	FOG, pH	CN	VOC's (includes xylene)					Comments
West-FPC-Teflon	1	Qt	G	6	3/29/95			14223	X	X	X	X	X	X								120275
West-FPC	↓	↓	↓	2	↓			14224							X							
West-Grab	↓	↓	↓	2	↓			14225								X	X					
West-Grab	↓	40 mL	↓	3	↓													X				

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 3-29-95 Time: 1:45	Received By:	Date: 3-29-95 Time: 1:45 pm	Witness:	TURNAROUND TIME
R. Hart		V. Romero			☐ RUSH ___ day turnaround
Relinquished By:	Date: 3-29-95 Time: 15:00	Received For Lab By:	Date: 3-29-95 Time:		☐ ROUTINE
V. Romero		C. Bentley			

SPECIAL INSTRUCTIONS:

MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16988

Company: Koppers
Address:

Phone #: (___)___-___ Fax #: (___)___-___
P.O. #: Proj. #: ___-___
Client Contact:
Project ID / Location:

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste
Other:
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Container Type: P - Plastic G - Glass V - VOC

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PCB/PEST/HERB	SVOC (including Maleic acid as dimethyl ester)	Acid as dimethyl ester	1,4-Naphthoquinone	phthalic acid as dimethyl ester			App B Metals, Ag	Cr+6	FOG	CN-, pH	TOC's (including Xylene)			Comments
West-FPC-Teflon	1	Qt	G	6	3/20/95			14/22	X	X	X	X	X	X									120976
West-FPC	↓	↓	↓	2	↓			14/23								X	X						
West-Grab	↓	↓	↓	2	↓			14/24										X	X				
West-Grab	↓	40ml	↓	3	↓			14/24												X			

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date:	Received By:	Date:	Witness:	TURNAROUND TIME:
V. Romero	3-28-95 Time: 16:15		-- -- Time: :		☐ RUSH ___day turnaround ☐ ROUTINE
Relinquished By:	Date: -- -- Time: :	Received For Lab By: [signature]	Date: 3-28-95 Time: 1653		

SPECIAL INSTRUCTIONS

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Reco

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 16,882

Company: Koppers
Address:

Phone #: (___) ___-___ Fax #: (___) ___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: ___
Project ID / Location: ___

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Waste
Other: ___

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. HNO3
3. H2SO4
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	TOG	CN-, pH	VOC's (including Xylene)	Comments
West-GRAB	1	~~2+~~ 40ml	~~G~~ G	~~2~~ 3	3/27/95			14069				12 0493

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 3-27-95 Time: 18:00	Received By:	Date: -- -- Time: :	Wilness:	TURNAROUND TIME:
J. Romeis					☐ RUSH ___day turnaround
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: 3-27-95 Time: :		☐ ROUTINE

ATTACHMENT 2
PERFORMANCE AFTER REGENERATIVE THERMAL OXIDIZERS

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708-967-6735

Groundwater Monitoring
Laboratory Services
Mobile Laboratory Services
Source Emissions

Waste Characterization (RCRA)
Wastewater Compliance Monitoring
• Pretreatment
• User Charge

June 26, 1995

Mr. Robert Harsh
Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Subject: **May - June 1995 User Charge Test**

Dear Mr. Harsh:

The results of the May - June 1995 User Charge Test at your facility are summarized on the following pages of this report. Testing was conducted at the final discharge outfalls, North and West. A sample of effluent was taken on an flow proportioned basis for a period of seven days at each outfall. The individual samples were composited at the end of each 24 hour period and delivered to our laboratory. The laboratory data sheet is attached to this report.

We certify that all sampling procedures meet the requirements listed in the User Charge Ordinance. All laboratory analyses performed follow the methodology set forth in "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

If you have any questions, please do not hesitate to call.

Sincerely,

Arron J. Kwak

Arron J. Kwak

AJK/th/95062604

Attachments

USER CHARGE CERTIFIED SAMPLING REPORTING STATEMENT--RD-920

.Name: Koppers Industries, Inc.
.Address: 3900 S. Laramie Avenue, Cicero, IL 60650
.Sampling Data: Samples Collected By: J.R., M.Mom., S.I.

3. Federal Tax Number:
4. Outlet Number: West Outfall
5. Primary Device: 3" Parshall

Sample Date and Day of Week	6b. Sample Times and Duration	6c. Metered Intake	6d. Metered Discharge	6e. Date Received	6f. Date Analyzed BOD	6f. Date Analyzed SS	6g. BOD--mg/L Dilution/Result	6h. SS--mg/L
Tues-Wed 5/30-31/95	from12:05 PM to 10:50 AM	846,670	288,580	05/31	beg 05/31 end 06/05	05/31	16/ 19	30
Wed-Thurs 5/31-6/1/95	from10:50 AM to 01:37 PM	846,670	315,780	06/01	beg 06/01 end 06/06	06/01	16/ 4	17
Thurs-Fri 6/1-2/95	from01:37 PM to 11:50 AM	846,670	290,850	06/02	beg 06/02 end 06/07	06/02	20/ 2	4
Fri-Sat 6/2-3/95	from11:50 AM to 02:40 PM	846,670	449,120	06/03	beg 06/03 end 06/08	06/03	16/ 3	14
Sat-Sun 6/3-4/95	from02:40 PM to 02:15 PM	846,670	422,180	06/04	beg 06/04 end 06/09	06/04	16/ 5	10
Sun-Mon 6/4-5/95	from02:15 PM to 03:20 PM	846,670	508,650	06/05	beg 06/05 end 06/10	06/05	8/ 4	20
Mon-Tues 6/5-6/95	from03:20 PM to 04:15 PM	846,670	504,260	06/06	beg 06/06 end 06/11	06/06	12/ 4	26
. Avg. flows (for intake & ischarge) & flow-weighted		846,670	397,060	Samples taken every Samples kept cool by		6000 g ice	5	18

nalytical data for BOD & SS.
. BOD Seed Source: MSD Treatment Plant West - Southwest (Stickney)
. Exceptions:
0. Name of Analyst: T. Santonastaso
11. Analyst's Supervisor: Gary Wiggenhauser

Certification. The undersigned has examined this statement and its supporting documentation, and he/she certifies that the methods used in the sampling analyses reported thereon were conducted in accordance with the latest edition of Standard Methods for the Examination of Water and Wastewater, and that the information contained theron to the best of his/her knowledge is true, correct, and complete.

ser/Company Name: Koppers Industries, Inc. Date:
ignature of Officer/Owner _____ Telephone:
fficer's Name and Title:
onsultant or Lab. Name: Environmental Monitoring & Technologies Date: 06/29/95
ignature of Officer/Owner Keith Gray ASK Telephone: 708-967-6666
fficer's Name and Title: Keith Gray, Manager

THIS FORM MUST BE COMPLETED AND ATTACHED TO DOCUMENTATION WITH THE USER CHARGE ANNUAL CERTIFIED STATEMENT

Koppers IndusKoppers Industries, Inc. West Outfall

FLOW-WEIGHTED CALCULATIONS (continued) Page 2

Date	Flow (gals)	BOD (mg/L)	SS (mg/L)	BOD (lbs)	SS (lbs)
5/30-31/95	288580	19	30	45.73	72.20
5/31-6/1/95	315780	4	17	10.53	44.77
6/1-2/95	290850	2	4	4.85	9.70
6/2-3/95	449120	3	14	11.24	52.44
6/3-4/95	422180	5	10	17.60	35.21
6/4-5/95	508650	4	20	16.97	84.84
6/5-6/95	504260	4	26	16.82	109.34
	2779420	41.00	121.00	123.75	408.51

Arithmetic Averages..... BOD (mg/L) 6 SS(mg/L) 17
Flow-Weighted Averages..... BOD (mg/L) 5 SS(mg/L) 18

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

124745

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 6/26/95
Sample Received: As Listed

Project Name: June 1995 User Charge Sampling
Sample Description: Wastewater 24 Hour Flow Proportion Composite - West Outfall

Date	Sample No.	BOD	Total Suspended Solids
5/30-31/95	20511	19	30
5/31-6/1/95	20714	4	17
6/1-2/95	20763	<2	4
6/2-3/95	20932	3	14
6/3-4/95	20957	5	10
6/4-5/95	20999	4	20
6/5-6/95	21097	4	26

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Weigl

ATTACHMENT 3
ANALYSIS PRIOR TO SEPTEMBER 8, 1995 INCIDENT

ATTACHMENT 4
ANALYSIS AFTER INSTALLATION OF CARBON UNIT

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 9/28/95
Report Date: 9/27/95
Sample Received: 9/26/95

Sample Description: Wastewater Grab Effluent Outfall 9/26/95
Sample No.: 31675

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	<0.5	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	<0.5	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	100

Leah E. Zehr

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
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LABORATORY REPORT

130671

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 9/28/95
Report Date: 9/27/95
Sample Received: 9/26/95

Sample Description: Wastewater Grab Effluent Outfall 9/26/95
Sample No.: 31675

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.7	<0.7	0.7	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	<0.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Naphthalene	<0.13	<0.13	0.13	10
14. Hexachlorobutadiene	<0.5	<0.5	0.5	10
15. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
16. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
17. Acenaphthylene	<0.13	<0.13	0.13	10
18. Dimethylphthalate	<0.7	<0.7	0.7	10
19. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
20. Acenaphthene	<0.13	<0.13	0.13	10
21. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
22. Fluorene	<0.13	<0.13	0.13	10
23. Diethylphthalate	<1.0	<1.0	1.0	10
24. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10

Leah E. Zehr

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
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FAX: 708/967-6735

LABORATORY REPORT

130671-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
25. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
26. Diphenylhydrazine	<1.6	<1.6	1.6	10
27. 4-Bromophenyl phenyl ether	<0.6	<0.6	0.6	10
28. Hexachlorobenzene	<1.9	<1.9	1.9	10
29. Phenanthrene	<0.13	<0.13	0.13	10
30. Anthracene	<0.13	<0.13	0.13	10
31. Di-n-butylphthalate	<0.5	<0.5	0.5	10
32. Fluoranthene	<0.13	<0.13	0.13	10
33. Benzidine	<4.7	<4.7	4.7	50
34. Pyrene	<0.13	<0.13	0.13	10
35. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
36. Benzo(a)anthracene	<0.13	<0.13	0.13	10
37. Chrysene	<0.13	<0.13	0.13	10
38. 3,3'--Dichlorobenzidine	<17.0	<17.0	17.0	20
39. Bis(2-ethylhexyl)phthalate	<2.5	<2.5	2.5	10
40. Di-n-octylphthalate	<4.7	<4.7	4.7	10
41. Benzo(b)fluoranthene	<0.13	<0.13	0.13	10
42. Benzo(k)fluoranthene	<0.13	<0.13	0.13	10
43. Benzo(a)pyrene	<0.13	<0.13	0.13	10
44. Indeno(1,2,3-cd)pyrene	<0.13	<0.13	0.13	10
45. Dibenzo(a,h)anthracene	<0.13	<0.13	0.13	10
46. Benzo(ghi)perylene	<0.13	<0.13	0.13	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. Phenol	<0.4	<0.4	0.4	10
2. 2-Chlorophenol	<0.9	<0.9	0.9	10
3. 2-Nitrophenol	<1.8	<1.8	1.8	10
4. 2,4-Dimethylphenol	<0.5	<0.5	0.5	10
5. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
6. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
7. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
8. 2,4-Dinitrophenol	<3.1	<3.1	3.1	10
9. 4-Nitrophenol	<2.4	<2.4	2.4	10
10. 4,6-Dinitro-o-cresol	<3.0	<3.0	3.0	10
11. Pentachlorophenol	<4.1	<4.1	4.1	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zhu

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/29/95
Sample Received: 9/26/95

Sample Description: Wastewater Effluent Outfall
Sample No.: 31675

Fats, Oil & Grease	<4
Hexavalent Chromium	<0.05
Total Suspended Solids	8
Cadmium	<0.02
Chromium	<0.10
Copper	<0.10
Iron	<0.10
Lead	0.38
Mercury	<0.0003
Nickel	<0.10
Silver	<0.20
Zinc	0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENCLOSURE #5

KOPPERS
INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

CERTIFIED MAIL
RETURN RECEIPT
REQUESTED

October 5, 1995

Mr. Charles Brutlag
Illinois Environmental Protection Agency
Emergency Response Unit, Mail Drop #29
PO Box 19276
2200 Churchill Road
Springfield, IL 62794-9276

SUBJECT: Environmental Incident Report
National Response Center #306846
Illinois Emergency Response #951884

Dear Mr. Brutlag:

This letter is written to confirm the telephone conversation on Friday, September 8, 1995, at 2335.

On Friday, September 8, 1995, between 1935 and 2020 hours, an estimated 17,000 gallons (170000 pounds) of coal tar/coal tar mixture was released onto the ground and into the sanitary shipping canal. The release was caused by a mechanical failure of a welded cap on an 8 inch transfer line.

Containment was initiated by plant personnel using on-scene boat, motor, slicker boom and absorbent booms and sheets. OSRO (Heritage Remediation Services, Inc.) was contacted and arrived on scene by 2320 to assist in further containment and initiate clean-up activities. FG Enterprises was also contacted and arrived on scene by and arrived on scene by 2300 with vacuum truck and hoses to assist in clean up activities on shore and at collection points inside slicker booms. Environmental Marine Services, Inc. was contacted on September 13, 1995, and arrived on scene Friday, September 15, 1995, to begin underwater recovery of the released material

All agency notifications were completed and agency personnel arrived on scene starting at 2130 (Mr. David Seaholm-MWRD), at 2300 (Mr. James Pilko and Mr. Mack Meade-US Coast Guard). On September 9, 1995 at 0200 (Mr. Walter Neid-USEPA) at 0930 (Mr. Robert D. Roache-Cook County Environmental Control) arrived on site. Jurisdiction over the incident was finally released to USEPA OSC Walter Neid. Current OSC is Leonard N. Zintak, Jr.

All soil remediated from the site is currently being stored on site until analytical results are received from laboratory (Environmental Monitoring and Technologies). Coal Tar is not an Extremely Hazardous Substance. All Coal Tar removed from the bottom of the Sanitary Shipping Canal will be recycled on site. Coal Tar can be a RCRA hazardous waste if the concentration of Benzene exceeds the regulatory limit through laboratory analysis by TCLP.

The remediation efforts being performed by Environmental Marine Services, Inc. and Heritage Remediation Services, Inc. are in progress and expected duration is currently projected through October 31, 1995.

No crude oil was involved in this release. All material involved was coal tar/coal tar mixture (CAS #65996-89-6).

There were no injuries or public health risk associated with this incident.

On site there is approximately 5,309,350 gallons of coal tar in storage.

Koppers Industries, Inc. is a producer of coal tar products and phthalic anhydride which has an SIC code of 2865. There are 150 personnel employed at this site.

If you have any further questions, please contact me at (708) 656-5900.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: R. Harsh
J. Lamb
F. Olvena
R. Vesely
G. Trent III

W. Swearingen K-1801
W. Turner K-1600

Mr. Donald Kerbs, Jr.
Fire Chief, Village of Stickney
6533 W. Pershing Road
Stickney, Illinois 60402

Mr. Allen Anderson
Illinois EPA
1701 South First Avenue
Suite 600
Maywood, Illinois 60153

Mr. Robert D. Roache
Cook County Department of
Environmental Control
Maybrook Civic Center
1500 Maybrook Drive
Maywood, Illinois 60153

Leonard N. Zintak, Jr.
USEPA Region V
Emergency Response Branch-OSC
77 W. Jackson Blvd. HSE-5J
Chicago, Illinois 60604

KOPPERS
INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

VIA FACSIMILE

October 4, 1995

Mr. Tom McSwiggin
Manager, NPDES Permit Section
Illinois Environmental Protection Agency
PO Box 19276
2200 Churchill Road
Springfield, IL 62794-9276

Re:Request for Emergency Discharge
National Response Center #306846
Illinois Emergency Response #951884

Dear Mr. McSwiggin:

As we discussed yesterday, an emergency discharge authorization is needed to continue remediation efforts of the above referenced incident which occurred on September 8, 1995. Currently, Environmental Marine Services, Inc. has been contracted to recover the coal tar material from the bottom of the Sanitary Shipping Canal. The recovered material and entrained water will flow via pipeline to two 20,000 gallon fractionation tanks were the water will be decanted and flow through existing sewer to our activated sludge system for removal of regulated pollutants. In addition to current operations, two 14,000 pound activated carbon adsorption units have been temporarily added to the treatment system to ensure continued compliance with pretreatment standards.

Enclosed, is a description of the current waste water treatment operations at Koppers Industries, Inc., Stickney Facility. Also enclosed, is a typical wastewater analysis obtained from recent operations that indicates that BAT standards are being achieved.

Volume of discharge should be approximately 200 to 230 gallons per minute with a maximum flow of 305 gallons per minute.

Mr. Leonard N. Zintak, Jr. is the OSC from USEPA and is currently overseeing operations of this remediation effort.

Thank you for your time and efforts in assisting us in this situation. If any further information is needed, please contact me at (708) 656-5900 or via facsimile at (708) 656-6079.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: R. A. Harsh
J. Lamb
G. E. Trent III
W. E. Swearingen K-1801
W. W. Turner K-1600

Leonard N. Zintak USEPA (OSC)

2.0 PROCESS FLOW DESCRIPTION

At the Koppers Industries Chicago Tar Plant facility there are two separate manufacturing processes. These include the production of coal tar distillation products and the manufacturing of phthalic anhydride. This section briefly describes the plant processes as well as an overview of the upgraded treatment plant. Specific operating procedures and daily testing required for the upgraded treatment plant will be presented in Sections 5.0, 6.0 and 7.0 and in Appendix A.

Tar Distillation

Coal tar by-products produced at the Chicago facility are derived from the processing of crude tars. The crude tar is generated during the coal coking process. Crude tars of various grades are delivered to the Chicago facility and are blended in storage tanks according to tar quality. The crude tar is put through a distillation step in which several derivatives are produced. The major derivatives include naphthalene, creosote and pitch.

Sources of effluent water generated from the tar process include:

- water drained from storage tanks
- water decanted from condensed overheads from the flash evaporation of water from crude tar,
- direct contact cooling water from manufacture of pencil pitch, and
- rainwater and steam condensate which contacts raw materials or products.

Phthalic Anhydride Production

Primary raw materials used in the phthalic anhydride process are naphthalene and ortho-xylene. The final product is used in the manufacture of plastics and polyester resins. The upgraded treatment system is designed to treat all of the wastewater (process and stormwater) generated in the tar plant process areas but it also

includes the capacity to treat the blowdown from the proposed SO_2 scrubber for the PAA process and stormwater runoff from seven acres in the PAA process areas.

Other sources of wastewater that are generated at the Chicago plant but will by-pass the activated sludge treatment system include:

- cooling tower blowdown,
- boiler blowdown,
- demineralizer regeneration water
- sanitary wastes.

The upgraded wastewater treatment system for the Chicago Tar Products plant consists of the following unit processes:

- o wastewater collection and equalization,
- o gravity oil/water separation (API),
- o chemical coagulation/flocculation (DAF),
- o biological oxidation and clarification (activated sludge process).

Figure 2-1 presents a schematic of the upgraded treatment system for the Chicago tar plant.

2.1 Wastewater Collection and Equalization

The existing wastewater collection system for both process and stormwater continues to be utilized in the upgraded treatment system. However, the pumps and controls in the main plant effluent sump (S-102) were modified to permit segregation of process water from stormwater, based upon the water level in the sump.

During periods of normal dry weather flows, one of the existing low capacity pumps P-105 or P-106, in the sump is used to transfer the collected wastewater from the sump to the process water storage tanks T-77 or T-78. The pump impellers were changed to limit the pumping rate to a maximum dry weather flowrate of

An alarm signal from the pH monitoring system (or from the loss of power to the blower motors) will automatically shut off the feed to the aeration tank by disengaging a solenoid valve on the instrument air supply line to the flow control valve in the influent line.

Acid and caustic is received in bulk and stored at the plant. Caustic is received at 50 percent strength and diluted to 25 percent in the caustic dilution/storage tank (T-508) to prevent freezing in the caustic feed system. A steam sparger is used to ensure adequate mixing in T-508 during dilution. Metering pumps P-13A and P-13B pump the caustic to the aeration tank on a signal from the pH controller C-1. Ninety-eight percent (66° Baume') sulfuric acid is received and stored in bulk. It is pumped neat, by metering pump P-11A or P-11B from the bulk storage tank to the aeration tank by a signal from the pH controller C-1.

The temperature of the aeration tank is controlled between 20° to 30°C. Direct steam injection is added into the aeration tank, if needed, to raise its temperature to a minimum winter temperature of 68°F. A heat exchanger is provided to lower the temperature of the mixed liquor in the aeration tank if needed to a summertime maximum of 86°F.

2.3.3 Nutrient Control

Phosphoric acid is pumped into the aeration tank to supply the biomass with phosphorous, a needed nutrient. The pumping rate is manually adjusted to maintain a residual of 1-2 mg/l of phosphorous in the aeration tank effluent as measured with a test kit. Seventy-five percent (75%) phosphoric acid is pumped neat from a bulk storage tank by metering pumps P-12A or P-12B to the aeration tank.

A truck unloading station for the acids, caustic, polymer and carbon deliveries is provided and it is equipped with safety signs, safety equipment and a washdown hose. The drain from the unloading station is manually controlled and is routed to the main plant effluent sump S-102. Unloading lines are clearly marked and the

caustic unloading line is locked closed to prevent inadvertent dilution by unauthorized personnel.

2.3.4 Clarifier

The mixed liquor (biomass) gravity overflows the aeration tank as it is displaced by the incoming feed wastewater. The mixed liquor flows into the clarifier which separates the biomass from the water (i.e., it clarifies the water). The clarifier allows the biomass to settle out of suspension and the aeration tank effluent is recycled back into the aeration tank. The clarified water overflows a weir plate and is discharged as the final treated plant effluent to the MWRD.

The clarifier is a steel tank on a reinforced concrete pad. The tank is 50 feet in diameter with a side water depth of 15 feet. A rake slowly rotates along the bottom of the clarifier moving the settled biomass sludge to the center take-off port and is pumped back into the aeration tank by one of two (2) sludge recycle pumps (P-5A/B). A portion of the settled biomass sludge is intentionally wasted daily (as dexcribed in Section 5.2).

The clarifier effluent overflows a circular weir and gravity flows through a flow/water quality monitoring station prior to being discharged. The existing sewer which conveys water that by-passes the treatment system, is then combined with the clarifier effluent stream and passes through a second combined discharge flow/water quality monitoring station before final discharge to the MWRD.

2.4 Flow Controls

The wastewater collected in the main plant sump S-102 is pumped to the stormwater surge tank T-501 in wet weather and into one of the two process water storage tanks T-77/78 in dry weather, depending upon the water level in the sump, as was previously described in Section 2.1.

The process water tanks continue to be operated on a fill and decant basis, with one tank filling while the other is being treated. The system is operated by a series of

flow switches and automatic control valves. The effluent from T-77/78 gravity drains through a new flow control valve to the API separators. The maximum permitted effluent discharge from T-77/78 is 165 gpm. Recovered oils continue to be pumped by P-78 to tank T-13 for recycle.

Stormwater is pumped from T-501 to the API separators by one of two pumps P-2A/B, through a flow control valve at a manually set and automatically controlled rate. The wastewater inventory in T-501 should be lowered as quickly as possible to keep the stormwater tank empty. However, the maximum discharge rate from the stormwater tank is 300 gpm. The maximum flowrate of the combined process water and stormwater to the API is 305 gpm, hence the maximum stormwater flowrate is limited to 140 gpm when the process water flowrate is at its maximum of 165 gpm. All of the process wastewater is to be sent to the aeration tank if possible, with the remainder of the 305 gpm total flow to be stormwater, if available. An oil recovery pump P-1 is provided in the stormwater tank to return settled oils to T-13. The effluent wastewater from the stormwater tank should normally be less concentrated than the process wastewater from T-77/78, and thus it represents more of a hydraulic loading upon the treatment system along with some reduced organic loading.

The effluent from the API separator units gravity discharges to the DAF units. Effluent from the DAF separators is pumped to the equalization tank T-102 by one of two pumps P-3A/B. The DAF effluent pumps are actuated by new level switches in the final effluent chambers within the DAF units. In the event of a high level condition in the DAF final effluent chambers the flow into the API separators is shut off. This is accomplished by a high level switch in the final effluent chamber which disengages a solenoid valve in the air supply line to the flow control valves on the influent lines to the API separators.

The pretreated wastewater in the equalization tank T-102 is pumped to the aeration tank via pumps P-2A/B. A flow control valve on the aeration tank feed line is used to control the feed rate to the biological system at an automatically set and controlled rate. The maximum permitted effluent flowrate from T-102 is 305 gpm.

The influent flowrate to the aeration tank displaces the mixed liquor out of the aeration tank. The mixed liquor gravity flows to the centerwell of the clarifier. Settled biomass (sludge) is returned to the aeration tank via one of two sludge recycle pump (P-5 A/B). The clarified effluent overflows a weir and gravity flows through the first effluent monitoring station. The clarifier effluent is then combined with plant sewer water that has by-passed the treatment system, and the combined discharge gravity flows through the second effluent monitoring station for final discharge to the MRWD.

DRAFT

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 9/28/95
Report Date: 9/27/95
Sample Received: 9/26/95

Sample Description: Wastewater Grab Effluent Outfall 9/26/95
Sample No.: 31675

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	<0.5	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	<0.5	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	100

Leah E. Zilber

LABORATORY DIRECTOR

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LABORATORY REPORT

130671

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 9/28/95
Report Date: 9/27/95
Sample Received: 9/26/95

Sample Description: Wastewater Grab Effluent Outfall 9/26/95
Sample No.: 31675

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.7	<0.7	0.7	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	<0.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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Morton Grove, Illinois 60053-3203
708/967-6666
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LABORATORY REPORT

130671-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Naphthalene	<0.13	<0.13	0.13	10
14. Hexachlorobutadiene	<0.5	<0.5	0.5	10
15. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
16. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
17. Acenaphthylene	<0.13	<0.13	0.13	10
18. Dimethylphthalate	<0.7	<0.7	0.7	10
19. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
20. Acenaphthene	<0.13	<0.13	0.13	10
21. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
22. Fluorene	<0.13	<0.13	0.13	10
23. Diethylphthalate	<1.0	<1.0	1.0	10
24. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10

Lark E. Zeller

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
25. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
26. Diphenylhydrazine	<1.6	<1.6	1.6	10
27. 4-Bromophenyl phenyl ether	<0.6	<0.6	0.6	10
28. Hexachlorobenzene	<1.9	<1.9	1.9	10
29. Phenanthrene	<0.13	<0.13	0.13	10
30. Anthracene	<0.13	<0.13	0.13	10
31. Di-n-butylphthalate	<0.5	<0.5	0.5	10
32. Fluoranthene	<0.13	<0.13	0.13	10
33. Benzidine	<4.7	<4.7	4.7	50
34. Pyrene	<0.13	<0.13	0.13	10
35. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
36. Benzo(a)anthracene	<0.13	<0.13	0.13	10
37. Chrysene	<0.13	<0.13	0.13	10
38. 3,3'—Dichlorobenzidine	<17.0	<17.0	17.0	20
39. Bis(2-ethylhexyl)phthalate	<2.5	<2.5	2.5	10
40. Di-n-octylphthalate	<4.7	<4.7	4.7	10
41. Benzo(b)fluoranthene	<0.13	<0.13	0.13	10
42. Benzo(k)fluoranthene	<0.13	<0.13	0.13	10
43. Benzo(a)pyrene	<0.13	<0.13	0.13	10
44. Indeno(1,2,3-cd)pyrene	<0.13	<0.13	0.13	10
45. Dibenzo(a,h)anthracene	<0.13	<0.13	0.13	10
46. Benzo(ghi)perylene	<0.13	<0.13	0.13	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
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LABORATORY REPORT

130671-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. Phenol	<0.4	<0.4	0.4	10
2. 2-Chlorophenol	<0.9	<0.9	0.9	10
3. 2-Nitrophenol	<1.8	<1.8	1.8	10
4. 2,4-Dimethylphenol	<0.5	<0.5	0.5	10
5. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
6. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
7. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
8. 2,4-Dinitrophenol	<3.1	<3.1	3.1	10
9. 4-Nitrophenol	<2.4	<2.4	2.4	10
10. 4,6-Dinitro-o-cresol	<3.0	<3.0	3.0	10
11. Pentachlorophenol	<4.1	<4.1	4.1	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
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LABORATORY REPORT

130671-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/29/95
Sample Received: 9/26/95

Sample Description: Wastewater Effluent Outfall
Sample No.: 31675

BOD	<2
Fats, Oil & Grease	<4
Hexavalent Chromium	<0.05
Total Suspended Solids	8
pH (units)	5.64
Cadmium	<0.02
Chromium	<0.10
Copper	<0.10
Iron	<0.10
Lead	0.38
Mercury	<0.0003
Nickel	<0.10
Silver	<0.20
Zinc	0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 17006

Company: Kappers
Address: 3900 S. Laramie Ave
Cicero, IL 60650

Phone #: (708) 656 5900 Fax #: (__) ___-___
P.O. #: ___ Proj. #: ___
Client Contact: Rob Harsh
Project ID / Location: ___

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste Other: ___
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	FOG (SM 5520 F)	BOD (SM 5210 B)	Acrolein & Acrylonitrile	VOC	Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver	Cyanide	Fluoride	Phenols	Total Cyanide	Total Phenols	Total Metals	Total VOCs	Comments
Effluent Outfall	1	Qt	G	1	9-25	5:30	2		✓												
"	1	Qt	G	1	9-25	5:35	1	31675		✓											130671
"	1	Pt	P	1	9-25	5:40	4				✓										
"	1	Vials	G	4	9-25	5:00						✓									
West Outfall	1	Qtg	G	1	9-26	8:45	1	31676					X	X	X						130682
"	1	Qt	G	2	9-26	8:45	1									X					130672
"	1	Pint	G	3	9-26	8:45	1	31677									X				

EMT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 9-25-95 Time: 6:00 PM	Received By:	Date: -- -- Time: :	Witness:	TURNAROUND TIME:
Relinquished By:	Date: 9-26-95 Time: 9:11 A.M.	Received For Lab By:	Date: 9-26-95 Time: :		☒ RUSH ___ day turnaround ☐ ROUTINE

SPECIAL INSTRUCTIONS:

OCT-04-1995 12:05 FROM TO 6566079 P.08

Jeffrey M. Cox, Esq.
November 10, 1995

ENCLOSURE #6

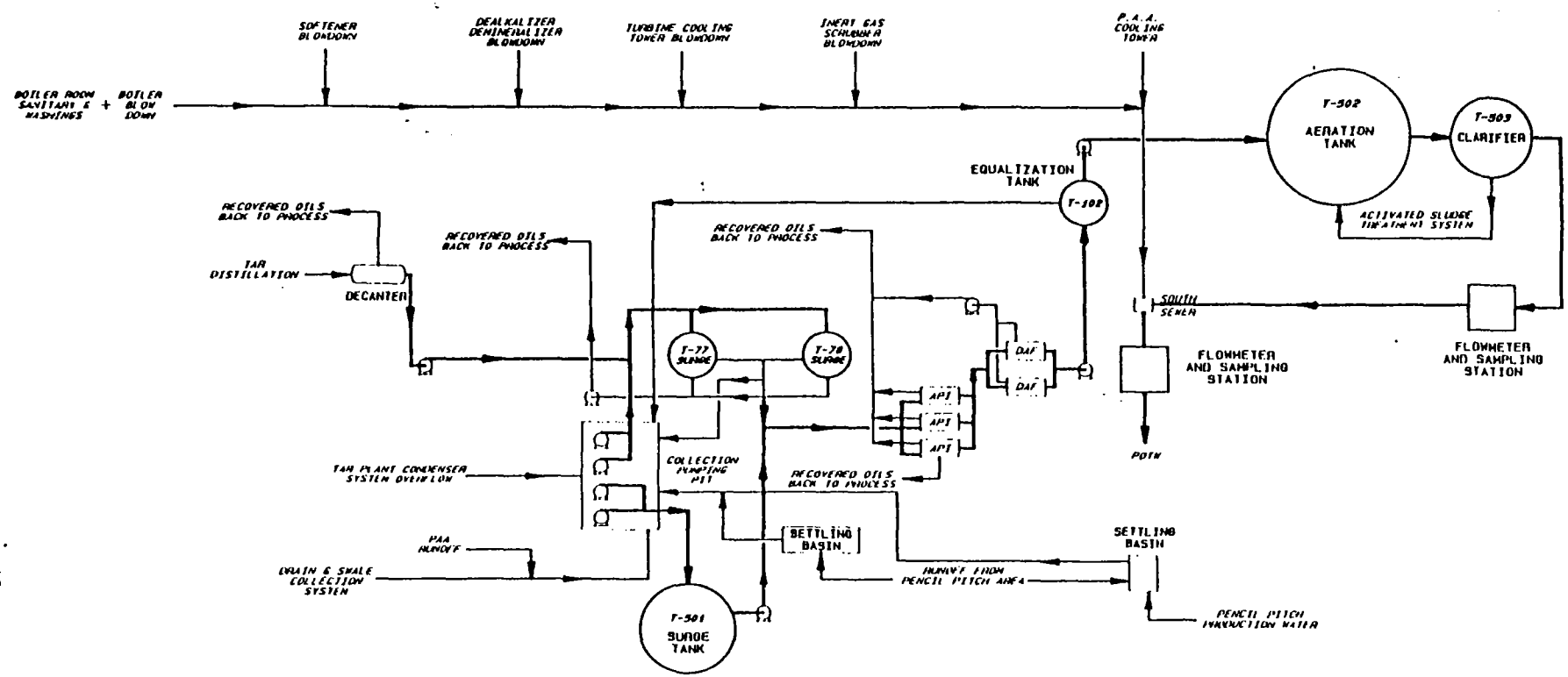

Figure 2-1
PROPOSED CHICAGO PLANT
EFFLUENT TREATMENT SYSTEM
SCHEMATIC

approximately 125 gpm. The impeller change was required to limit the flow to ensure that adequate residence time is provided in T-77 and T-78 for effective separation of any free oils associated with the process wastewater. A second high level switch in the sump shuts down P-105/106 and actuates one of the existing high capacity pumps P-107/108 if the low capacity pump cannot remove the water from the sump fast enough. The high capacity pump transfers the stormwater/process water mix to the new 3,000,000 gallon stormwater storage surge tank T-105. A high high level sensor in the sump actuates both high capacity pumps if needed. The concept is to provide a steady loading of process water to the aeration tank and to remove the large fluctuations in the wastewater concentrations caused by intermittent stormwater flows.

The design basis for the new aeration tank provides for a maximum combined process and stormwater flowrate of 305 gpm. The design process water flowrate into the aeration tank, with a 25% safety factor added, is 165 gpm, therefore, the maximum stormwater flowrate into the aeration tank is 140 gpm.

2.2 Oil-Water Separation

The wastewater from the tar distillation process is first sent to a decanter where the oils are removed and recycled back to the process. From the decanter, the tar plant wastewater flows to the surge tank sump S-102 where it is mixed with wastewater from the drain and swale collection system and the pencil pitch runoff area.

Using a system of surge pumps, a surge tank (T-501), and primary settling tanks (T-77/78) with float switches, the wastewater is pumped to one of three (3) American Petroleum Institute (API) separators where the oils are removed and returned to the process. Effluent from the separators is sent to one of two (2) Dissolved Air Floatation (DAF) separators where polymer is added to enhance the removal of emulsified oils. Flocced particles are floated to the top of the DAF and are removed by a skimmer. The heavier particles settle to the bottom of the DAF and are removed by an auger screw. The recovered DAF sludge is recycled to the wastewater collection pumping pit. The DAF effluent is pumped to tank 102 which

serves as an equalization tank for the pretreated wastewater prior to it being pumped to the new aeration tank (T-502).

2.3 Biological Treatment

2.3.1 Aeration Tank

The biological treatment of the plant wastewater will be accomplished in the aeration tank (T-502). The aeration tank is an open top steel tank on a reinforced concrete pad with a working volume of 725,000 gallons. The dimensions of the aeration tank are 70 feet in diameter with a 28 feet side wall depth (25 feet water depth).

The aeration tank is equipped with a draft tube aerator to provide the needed oxygen transfer to maintain a minimum of 3 mg/l dissolved oxygen concentration. The air is supplied by three (3) blowers (one an on-line spare) which blows air into a sparger ring located below the mixer near the base of the draft tube. The mixer keeps both the biomass (activated sludge) and activated carbon in suspension in the aeration tank. Powdered activated carbon is manually added into the aeration tank as needed to maintain an activated carbon concentration equivalent to 10% of the mixed liquor total suspended solids concentration.

2.3.2 pH and Temperature Control

The aeration tank is equipped with pH and temperature control systems. Aeration tank pH automatically controlled within the range of 7.0 to 7.5. The pH within the aeration tank is controlled by a pH controller (C-1) that automatically dispenses acid or caustic, as needed. Caustic soda (NaOH) and sulfuric acid are used for pH control. A secondary "watch-dog" controller system (C-2) independently monitors the pH in the aeration tank. High pH (8.0) and low pH (6.5) alarm set points on the watch-dog controller actuates an alarm system and automatically shuts off the feed to the aeration tank and disengages the caustic and acid feed pumps. The operator needs to acknowledge the alarm, correct the problem and reset the pH controller and feed valve settings before re-starting the aeration tank feed pumps.

An alarm signal from the pH monitoring system (or from the loss of power to the blower motors) will automatically shut off the feed to the aeration tank by disengaging a solenoid valve on the instrument air supply line to the flow control valve in the influent line.

Acid and caustic is received in bulk and stored at the plant. Caustic is received at 50 percent strength and diluted to 25 percent in the caustic dilution/storage tank (T-508) to prevent freezing in the caustic feed system. A steam sparger is used to ensure adequate mixing in T-508 during dilution. Metering pumps P-13A and P-13B pump the caustic to the aeration tank on a signal from the pH controller C-1. Ninety-eight percent (66° Baume') sulfuric acid is received and stored in bulk. It is pumped neat, by metering pump P-11A or P-11B from the bulk storage tank to the aeration tank by a signal from the pH controller C-1.

The temperature of the aeration tank is controlled between 20° to 30°C. Direct steam injection is added into the aeration tank, if needed, to raise its temperature to a minimum winter temperature of 68°F. A heat exchanger is provided to lower the temperature of the mixed liquor in the aeration tank if needed to a summertime maximum of 86°F.

2.3.3 Nutrient Control

Phosphoric acid is pumped into the aeration tank to supply the biomass with phosphorous, a needed nutrient. The pumping rate is manually adjusted to maintain a residual of 1-2 mg/l of phosphorous in the aeration tank effluent as measured with a test kit. Seventy-five percent (75%) phosphoric acid is pumped neat from a bulk storage tank by metering pumps P-12A or P-12B to the aeration tank.

A truck unloading station for the acids, caustic, polymer and carbon deliveries is provided and it is equipped with safety signs, safety equipment and a washdown hose. The drain from the unloading station is manually controlled and is routed to the main plant effluent sump S-102. Unloading lines are clearly marked and the

caustic unloading line is locked closed to prevent inadvertent dilution by unauthorized personnel.

2.3.4 Clarifier

The mixed liquor (biomass) gravity overflows the aeration tank as it is displaced by the incoming feed wastewater. The mixed liquor flows into the clarifier which separates the biomass from the water (i.e., it clarifies the water). The clarifier allows the biomass to settle out of suspension and the aeration tank effluent is recycled back into the aeration tank. The clarified water overflows a weir plate and is discharged as the final treated plant effluent to the MWRD.

The clarifier is a steel tank on a reinforced concrete pad. The tank is 50 feet in diameter with a side water depth of 15 feet. A rake slowly rotates along the bottom of the clarifier moving the settled biomass sludge to the center take-off port and is pumped back into the aeration tank by one of two (2) sludge recycle pumps (P-5A/B). A portion of the settled biomass sludge is intentionally wasted daily (as dexcribed in Section 5.2).

The clarifier effluent overflows a circular weir and gravity flows through a flow/water quality monitoring station prior to being discharged. The existing sewer which conveys water that by-passes the treatment system, is then combined with the clarifier effluent stream and passes through a second combined discharge flow/water quality monitoring station before final discharge to the MWRD.

2.4 Flow Controls

The wastewater collected in the main plant sump S-102 is pumped to the stormwater surge tank T-501 in wet weather and into one of the two process water storage tanks T-77/78 in dry weather, depending upon the water level in the sump, as was previously described in Section 2.1.

The process water tanks continue to be operated on a fill and decant basis, with one tank filling while the other is being treated. The system is operated by a series of

flow switches and automatic control valves. The effluent from T-77/78 gravity drains through a new flow control valve to the API separators. The maximum permitted effluent discharge from T-77/78 is 165 gpm. Recovered oils continue to be pumped by P-78 to tank T-13 for recycle.

Stormwater is pumped from T-501 to the API separators by one of two pumps P-2A/B, through a flow control valve at a manually set and automatically controlled rate. The wastewater inventory in T-501 should be lowered as quickly as possible to keep the stormwater tank empty. However, the maximum discharge rate from the stormwater tank is 300 gpm. The maximum flowrate of the combined process water and stormwater to the API is 305 gpm, hence the maximum stormwater flowrate is limited to 140 gpm when the process water flowrate is at its maximum of 165 gpm. All of the process wastewater is to be sent to the aeration tank if possible, with the remainder of the 305 gpm total flow to be stormwater, if available. An oil recovery pump P-1 is provided in the stormwater tank to return settled oils to T-13. The effluent wastewater from the stormwater tank should normally be less concentrated than the process wastewater from T-77/78, and thus it represents more of a hydraulic loading upon the treatment system along with some reduced organic loading.

The effluent from the API separator units gravity discharges to the DAF units. Effluent from the DAF separators is pumped to the equalization tank T-102 by one of two pumps P-3A/B. The DAF effluent pumps are actuated by new level switches in the final effluent chambers within the DAF units. In the event of a high level condition in the DAF final effluent chambers the flow into the API separators is shut off. This is accomplished by a high level switch in the final effluent chamber which disengages a solenoid valve in the air supply line to the flow control valves on the influent lines to the API separators.

The pretreated wastewater in the equalization tank T-102 is pumped to the aeration tank via pumps P-2A/B. A flow control valve on the aeration tank feed line is used to control the feed rate to the biological system at an automatically set and controlled rate. The maximum permitted effluent flowrate from T-102 is 305 gpm.

The influent flowrate to the aeration tank displaces the mixed liquor out of the aeration tank. The mixed liquor gravity flows to the centerwell of the clarifier. Settled biomass (sludge) is returned to the aeration tank via one of two sludge recycle pump (P-5 A/B). The clarified effluent overflows a weir and gravity flows through the first effluent monitoring station. The clarifier effluent is then combined with plant sewer water that has by-passed the treatment system, and the combined discharge gravity flows through the second effluent monitoring station for final discharge to the MRWD.

DRAFT

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 9/28/95
Report Date: 9/27/95
Sample Received: 9/26/95

Sample Description: Wastewater Grab Effluent Outfall 9/26/95
Sample No.: 31675

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
1. Chloromethane	<1.0	<1.0	1.0	10
2. Bromomethane	<0.7	<0.7	0.7	10
3. Vinyl chloride	<0.7	<0.7	0.7	10
4. Chloroethane	<0.7	<0.7	0.7	10
5. Dichloromethane	<0.8	<0.8	0.8	5
6. Acrolein	<15.0	<15.0	15.0	50
7. Acrylonitrile	<5.0	<5.0	5.0	50
8. Trichlorofluoromethane	<0.5	<0.5	0.5	5
9. 1,1-Dichloroethene	<0.5	<0.5	0.5	5
10. 1,1-Dichloroethane	<0.5	<0.5	0.5	5
11. trans-1,2-Dichloroethene	<0.5	<0.5	0.5	5
12. Chloroform	<0.5	<0.5	0.5	5
13. 1,2-Dichloroethane	<1.6	<1.6	1.6	5
14. 1,1,1-Trichloroethane	<0.5	<0.5	0.5	5
15. Carbon tetrachloride	<0.6	<0.6	0.6	5
16. Bromodichloromethane	<0.6	<0.6	0.6	5
17. 1,2-Dichloropropane	<0.5	<0.5	0.5	5
18. cis-1,3-Dichloropropene	<0.5	<0.5	0.5	5
19. Trichloroethene	<0.5	<0.5	0.5	5
20. Benzene	<0.5	<0.5	0.5	5
21. Dibromochloromethane	<0.5	<0.5	0.5	5
22. Trans-1,3-Dichloropropene	<0.9	<0.9	0.9	5
23. 1,1,2-Trichloroethane	<0.5	<0.5	0.5	5
24. 2-Chloroethyl vinyl ether	<90.2	<90.2	90.2	100

Leah E. Zeller

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Revised Report Date: 9/28/95
Report Date: 9/27/95
Sample Received: 9/26/95

Sample Description: Wastewater Grab Effluent Outfall 9/26/95
Sample No.: 31675

Compound Purgeables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/L (ppb)	Quantitation Limit ug/L (ppb)
25. Bromoform	<4.0	<4.0	4.0	5
26. Tetrachloroethene	<0.7	<0.7	0.7	5
27. 1,1,2,2-Tetrachloroethane	<3.9	<3.9	3.9	5
28. Toluene	<0.5	<0.5	0.5	5
29. Chlorobenzene	<0.5	<0.5	0.5	5
30. Ethylbenzene	<0.5	<0.5	0.5	5

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 624 in accordance with 40 CFR.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. N-Nitrosodimethylamine	<0.7	<0.7	0.7	10
2. Bis(2-chloroethyl)ether	<0.5	<0.5	0.5	10
3. 1,3-Dichlorobenzene	<0.4	<0.4	0.4	10
4. 1.4-Dichlorobenzene	<0.4	<0.4	0.4	10
5. 1,2-Dichlorobenzene	<0.9	<0.9	0.9	10
6. Bis(2-chloroisopropyl)ether	<1.2	<1.2	1.2	10
7. Hexachloroethane	<0.7	<0.7	0.7	10
8. N-Nitrosodi-n-propylamine	<1.5	<1.5	1.5	10
9. Nitrobenzene	<1.8	<1.8	1.8	10
10. Isophorone	<0.3	<0.3	0.3	10
11. Bis(2-chloroethoxy)methane	<0.4	<0.4	0.4	10
12. 1,2,4-Trichlorobenzene	<0.4	<0.4	0.4	10
13. Naphthalene	<0.13	<0.13	0.13	10
14. Hexachlorobutadiene	<0.5	<0.5	0.5	10
15. Hexachlorocyclopentadiene	<9.5	<9.5	9.5	20
16. 2-Chloronaphthalene	<0.3	<0.3	0.3	10
17. Acenaphthylene	<0.13	<0.13	0.13	10
18. Dimethylphthalate	<0.7	<0.7	0.7	10
19. 2,6-Dinitrotoluene	<0.9	<0.9	0.9	10
20. Acenaphthene	<0.13	<0.13	0.13	10
21. 2,4-Dinitrotoluene	<0.7	<0.7	0.7	10
22. Fluorene	<0.13	<0.13	0.13	10
23. Diethylphthalate	<1.0	<1.0	1.0	10
24. 4-Chlorophenyl phenyl ether	<0.4	<0.4	0.4	10

Lark E. Zeller

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Base/Neutral Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
25. N-Nitrosodiphenylamine	<0.5	<0.5	0.5	10
26. Diphenylhydrazine	<1.6	<1.6	1.6	10
27. 4-Bromophenyl phenyl ether	<0.6	<0.6	0.6	10
28. Hexachlorobenzene	<1.9	<1.9	1.9	10
29. Phenanthrene	<0.13	<0.13	0.13	10
30. Anthracene	<0.13	<0.13	0.13	10
31. Di-n-butylphthalate	<0.5	<0.5	0.5	10
32. Fluoranthene	<0.13	<0.13	0.13	10
33. Benzidine	<4.7	<4.7	4.7	50
34. Pyrene	<0.13	<0.13	0.13	10
35. Butyl benzyl phthalate	<1.9	<1.9	1.9	10
36. Benzo(a)anthracene	<0.13	<0.13	0.13	10
37. Chrysene	<0.13	<0.13	0.13	10
38. 3,3'—Dichlorobenzidine	<17.0	<17.0	17.0	20
39. Bis(2-ethylhexyl)phthalate	<2.5	<2.5	2.5	10
40. Di-n-octylphthalate	<4.7	<4.7	4.7	10
41. Benzo(b)fluoranthene	<0.13	<0.13	0.13	10
42. Benzo(k)fluoranthene	<0.13	<0.13	0.13	10
43. Benzo(a)pyrene	<0.13	<0.13	0.13	10
44. Indeno(1,2,3-cd)pyrene	<0.13	<0.13	0.13	10
45. Dibenzo(a,h)anthracene	<0.13	<0.13	0.13	10
46. Benzo(ghi)perylene	<0.13	<0.13	0.13	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zhu

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-B

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/28/95
Sample Received: 9/26/95

Sample Description: Watewater Effluent Outfall 9/26/95
Sample No.: 31675

Compound Acid Extractables	Concentration Found In Sample (ppb)	Concentration Found In Blank (ppb)	Method Detection Limit (MDL) ug/kg (ppb)	Quantitation Limit ug/kg (ppb)
1. Phenol	<0.4	<0.4	0.4	10
2. 2-Chlorophenol	<0.9	<0.9	0.9	10
3. 2-Nitrophenol	<1.8	<1.8	1.8	10
4. 2,4-Dimethylphenol	<0.5	<0.5	0.5	10
5. 2,4-Dichlorophenol	<1.7	<1.7	1.7	10
6. p-Chloro-m-cresol	<2.2	<2.2	2.2	10
7. 2,4,6-Trichlorophenol	<2.2	<2.2	2.2	10
8. 2,4-Dinitrophenol	<3.1	<3.1	3.1	10
9. 4-Nitrophenol	<2.4	<2.4	2.4	10
10. 4,6-Dinitro-o-cresol	<3.0	<3.0	3.0	10
11. Pentachlorophenol	<4.1	<4.1	4.1	10

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

130671-C

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 9/29/95
Sample Received: 9/26/95

Sample Description: Wastewater Effluent Outfall
Sample No.: 31675

BOD	<2
Fats, Oil & Grease	<4
Hexavalent Chromium	<0.05
Total Suspended Solids	8
pH (units)	5.64
Cadmium	<0.02
Chromium	<0.10
Copper	<0.10
Iron	<0.10
Lead	0.38
Mercury	<0.0003
Nickel	<0.10
Silver	<0.20
Zinc	0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 17006

Company: Kappers
Address: 3900 S. Laramie Ave
Cicero, IL 60650

Phone #: (708) 656-5900 Fax #: (___) ___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: Rob Harsh
Project ID / Location: ___

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Waste Other: ___
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	FOG	BOD, TSS, pH	Hazardous Waste	VOC				Antimony, As, Cr	SVOC	Sulfide	Fluoride/Nitrate/Nitrite	Total CN	VOC's				Comments
Effluent Outfall	1	Qt	G	1	9-25	5:30	2		✓																
"	1	Qt	G	1	9-25	5:35	1	31675		✓															130671
"	1	Pt	P	1	9-25	5:40	4				✓														
"	1	Vial	G	4	9-25	5:00						✓													
West Outfall	1	Jug	G	1	9-26	8:45	1	31676								X	X	X							130682
"	1	Qt	G	2	9-26	8:45	1	31677											X						130672
"	1	Vial	G	3	9-26	8:45	1													X					

MT does not accept samples that contain high levels of Cyanide.

Relinquished By:	Date: 9-25-95 Time: 6:00 PM	Received By:	Date: -- -- Time: :	Witness:	TURNAROUND TIME: ☒ RUSH ___ day turnaround ☐ ROUTINE
Relinquished By:	Date: 9-26-95 Time: 9:11 AM	Received For Lab By:	Date: 9-26-95 Time: :		

SPECIAL INSTRUCTIONS:

OCT-04-1995 12:05 FROM TO 6566079 P.08

Jeffrey M. Cox, Esq.
November 10, 1995

ENCLOSURE #6

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

VIA FACSIMILE

December 29,1995

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Bi Weekly Progress Report

Dear Mr. Zintak:

Since the last report, Superior Special Services, Inc. is continuing their dredging operations and has completed the section from 35 feet south to 10 feet south and from 50 feet east to 720 feet west. FG Enterprises has continued to remove the dredged material from the API separators which is being stabilized using bottom ash from American Fly Ash Company. As of this date 52 loads (approximately 7 cubic yards each) have been removed and stabilized from the API separators. 59 loads (approximately 15 cubic yards each and weighing 2,135,180 pounds) of stabilized coal tar and sediment have been shipped to County Environmental of Livingston (copies of manifest from shipments since the last report are attached).

Additional plans for completing the vacuuming outside the 70 foot limit are currently being revised to provide additional information in hope of resolving the U.S. Coast Guard's concerns.

Environmental Testing Services (ETS) is currently working on the draft confirmation of cleanup sampling plan. It is expected that early next week the draft will be completed and by January 4th or 5th, 1996 the final plan can be submitted to your office.

The total volume of treated water discharged to the Chicago Sanitary and Shipping Canal is 23,510,304 gallons. Attached is a table of daily flows and analytical results of the discharge.

RE: Bi Weekly Progress Report

If you have any further questions, please call me at (708) 656-5900.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: R.Harsh
G. E. Trent III
W. E. Swearingen K-1801
James R. Morrin, Esq.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 150600

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Kappis Industries, Inc. 3900 S. Laramie Ave Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809953 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS: 708-654-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0707

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	001	DT	0002	Y	EPA HW Number XX Authorization Number 941240
b.					EPA HW Number XX Authorization Number
c.					EPA HW Number XX Authorization Number
d.					EPA HW Number XX Authorization Number

I. Additional Description for Materials Listed Above: 1st Load - 15yd. 2nd Load - 15yd.

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark A. Cilley E.H+S Mgr — Signature: Mark A. Cilley — Date (Month Day Year): 1 22 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Steve Markovik — Signature: [illegible] — Date (Month Day Year): 1 22 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed/Typed Name — Signature — Date (Month Day Year)

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA (RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217/782-7860 and the National Response Center at 800/424-8802 or 202/426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 95061

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809954 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS: 708-656-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3780 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15yds. 2nd Load - 15yds

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark A. Gilley E.H+S Mgr. Signature: Mark A. Gilley Date: Month 12 Day 20 Year 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: CHARLIE COX Signature: Charlie Cox Date: Month 12 Day 20 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

In case of a spill call the Illinois Office of Emergency Response at 217/782-7860 and the National Response Center at 800/424-8802 or 202/426-2675.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039; Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95062

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Rogers Industries, Inc. 3900 S. Laramie Ave Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809955 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS: 708-656-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. Of Livingston RR#3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	001	DT	0003	PY	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15 yds. 2nd Load - 15 yds = 30 yds

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: Mark A. Cilley EH+S Mgr. Signature: Mark A. Cilley Date (Month Day Year): 12 20 95

17. Transporter 1 Acknowledgement of Receipt of Materials

TRANSPORTER

Printed/Typed Name: Tim Jones Signature: Tim Jones Date (Month Day Year): 12 20 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date (Month Day Year)

19. Discrepancy Indication Space

FACILITY

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date (Month Day Year)

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 95063 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650 | Location If Different

A. Illinois Manifest Document Number: IL 6809956 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0 3 1 6 2 8 0 0 0 4

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS: 708-656-5900

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0 2 0 7

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR#3 Box 646 Pontiac, IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1 0 5 8 2 1 0 0 0 2

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 94210
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15 yds. 2nd Load - 15 yds.

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark A. Cilley E,H+S Mgr. | Signature: Mark A. Cilley | Date (Month Day Year): 12 20 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Date (Month Day Year):

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date (Month Day Year)

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS — ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 — SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95064

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Sippers Industries, Inc. 3400 S. Laramie Ave. Cicero IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809957 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0 3 1 6 2 8 0 0 0 4

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0 2 0 7

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1 0 5 8 2 1 0 0 0 2

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	0 0 1	DT	0 0 0 3 0	Y	EPA HW Number: X X; Authorization Number: 9 4 2 4 0 0
b.					EPA HW Number: X X; Authorization Number:
c.					EPA HW Number: X X; Authorization Number:
d.					EPA HW Number: X X; Authorization Number:

I. Additional Description for Materials Listed Above: 1st Load - 15 yds. 2ND Load 15 yds

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

GENERATOR — Printed/Typed Name: Mark A. Cilley E.H+S Mgr. — Signature: Mark A. Cilley — Date (Month Day Year): 1 2 2 0 9 5

TRANSPORTER — 17. Transporter 1 Acknowledgement of Receipt of Materials — Printed/Typed Name: [illegible] — Signature: [illegible] — Date (Month Day Year): 1 2 2 0 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials — Printed/Typed Name — Signature — Date (Month Day Year)

FACILITY — 19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19. — Printed/Typed Name — Signature — Date (Month Day Year)

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 95065 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650 | Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809958 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3580 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15 yds; 2nd Load - 15 yds = 30 yds 2 T/L

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark A. Cilley E, H + S Mgr. | Signature: Mark A. Cilley | Date: Month 12 Day 21 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Tim Jones Trk # 406 | Signature: Tim Jones | Date: Month 12 Day 21 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95066

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Poppers Industries, Inc. 3400 S. Laramie Ave. Cicero, IL 60650

Location If Different

4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" 708-656-5900

A. Illinois Manifest Document Number: IL 6809959 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. Of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	Waste, Coal Tar + Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.						EPA HW Number XX; Authorization Number
c.						EPA HW Number XX; Authorization Number
d.						EPA HW Number XX; Authorization Number

I. Additional Description for Materials Listed Above: 1st Load - 15yds 2nd Load - 15yds.

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

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GENERATOR

Printed/Typed Name: Mark A. Cilley E, H+S Mgr. Signature: Mark A. Cilley Date: Month 12 Day 21 Year 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: MARK CILEY Signature: [illegible] Date: Month 12 Day 21 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date: Month Day Year

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95067

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Roppers Industries, Inc. 3400 S. Laramie Ave Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809960 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0 3 1 6 7 8 0 0 0 4

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0 2 0 7

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1 0 5 8 2 1 0 0 0 2

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Cool Tar + Soil NON-Hazardous	0.0.1	DT	0 0 0 3 0	Y	EPA HW Number: XX; Authorization Number: 9 4 2 4 0 0
b.					EPA HW Number: XX; Authorization Number:
c.					EPA HW Number: XX; Authorization Number:
d.					EPA HW Number: XX; Authorization Number:

Additional Description for Materials Listed Above: 1st Load - 15yds 2nd Load - 15yds

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mark A. Cilley E, H & S Mgr. Signature: Mark A. Cilley Date: Month 1 Day 0 Year 9 5

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Larry Overgaard Signature: Larry Overgaard Date: Month 1 Day 0 Year 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Signature: Date: Month Day Year

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY / DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 450668

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3400 S. Laramie Ave Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809961 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-654-5900

5. Transporter 1 Company Name: Waste Systems.

6. US EPA ID Number

C. Illinois Transporter's ID: 02007

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. Of Livingston RR#3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

I. Additional Description for Materials Listed Above: 1st Load - 15yds 2nd Load - 15YDS

K. Handling Codes for Wastes Listed Above in Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark A. Cilley E, H+S Mgr — Signature: Mark A. Cilley — Date (Month Day Year): 1 22 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: LEE Holman — Signature: Lee Holman — Date (Month Day Year): 1 22 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.

Printed/Typed Name — Signature — Date (Month Day Year)

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 95069

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address Location If Different
Koppers Industries, Inc.
3900 S. Laramie Ave.
Cicero, IL 60650

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number IL 6809962 FEE PAID IF APPLICABLE

B. Illinois Generator's ID 0316280004

5. Transporter 1 Company Name Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address
County Env. of Livingston
RR #3 Box 646
Pontiac IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID 1058210002

H. Facility's Phone (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	001	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above
1st Load - 15yds
2nd LOAD - 15yds.

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mark A Cilley E, H&S Mgr. Signature: [signature] Date: Month 12 Day 21 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Steve [illegible] Signature: [signature] Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.
Printed/Typed Name Signature Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL
P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761
FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.
Manifest Document No. 95071
2. Page 1 of 1
Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc, 3900 S. Laramie Ave, Cicero, IL 60650
Location If Different
A. Illinois Manifest Document Number: IL 6809963 FEE PAID IF APPLICABLE
B. Illinois Generator's ID: 0 3 1 6 2 8 0 0 0 4
4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900
C. Illinois Transporter's ID: 0 2 0 7
5. Transporter 1 Company Name: Waste Systems
6. US EPA ID Number
D. (708) 597-3580 Transporter's Phone
7. Transporter 2 Company Name
8. US EPA ID Number
E. Illinois Transporter's ID
F. ( ) Transporter's Phone
9. Designated Facility Name and Site Address: County Env. Of Livingston, RR #3 Box 646, Pontiac, IL 61764-0646
10. US EPA ID Number
G. Illinois Facility's ID: 1 0 5 8 2 1 0 0 0 2
H. Facility's Phone: (815) 844-3911

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON Hazardous	0.01	DT	0 0 0 3 0	Y	EPA HW Number XX; Authorization Number 9 4 2 4 0 0
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above
1st Load - 15 yds
2nd Load - 15 yds 2 T/L = 30 yds

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mark A. Cillry E H + S Mgr. Signature: Mark A. Cillry Date (Month Day Year): 1 2 2 2 1 5

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Tim Jones Trk #L106 Signature: Tim Jones Date (Month Day Year): 1 2 2 2 1 5

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.
Printed/Typed Name Signature Date (Month Day Year)

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 195072

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3400 S. Laramie Ave. Cicero, IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809964 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0 3 1 6 2 8 0 0 0 4

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5400

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0 2 0 7

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1 0 5 8 2 1 0 0 0 2

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, Coal Tar + Soil NON-Hazardous	0 0 1	DT	0 0 0 3 0	Y	EPA HW Number: XX; Authorization Number: 9 4 2 4 0 0
b.					EPA HW Number: XX; Authorization Number:
c.					EPA HW Number: XX; Authorization Number:
d.					EPA HW Number: XX; Authorization Number:

J. Additional Description for Materials Listed Above: 1st Load - 15yds 2nd LOAD - 15yds.

K. Handling Codes for Wastes Listed Above in Item #14.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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GENERATOR — Printed/Typed Name: Mark A. Cilley E, H+S Mgr. Signature: Mark A. Cilley Date (Month Day Year): 1 2 2 2 9 5

TRANSPORTER — 17. Transporter 1 Acknowledgement of Receipt of Materials — Printed/Typed Name: CHARLIE CICY Signature: [illegible] Date (Month Day Year): 1 2 2 2 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials — Printed/Typed Name: Signature: Date (Month Day Year):

FACILITY — 19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19. — Printed/Typed Name: Signature: Date (Month Day Year):

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COPY 5. GENERATOR MAIL TO IEPA (RCRA AND PCB WASTES)

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EFFLUENT OUTFALL DAILY FLOW

Date	Gallons/ Minute	Gallons/Day
10/11/95	180	259200
10/12/95	190	273600
1[illegible]3/95	210	302400
1[illegible]4/95	200	288000
10/15/95	195	280800
10/16/95	195	280800
10/17/95	195	280800
10/18/95	195	280800
10/19/95	195	280800
10/20/95	200	288000
10/21/95	200	288000
10/22/95	200	288000
10/23/95	200	288000
10/24/95	200	288000
10/25/95	200	288000
10/26/95	200	288000
10/27/95	250	360000
10/28/95	265	381600
10/29/95	265	381600
10/30/95	265	381600
10/31/95	265	381600
11/1/95	265	381600
11/2/95	265	381600
11/3/95	260	374400
11/4/95	260	374400
11/5/95	260	374400
11/6/95	260	374400
7/95	260	374400
11/8/95	160	230400
11/9/95	260	374400
11/10/95	190	273600
11/11/95	200	288000
11/12/95	260	374400
11/13/95	260	374400
11/14/95	260	374400
11/15/95	260	374400
11/16/95	260	374400
11/17/95	270	388800
11/18/95	260	374400
11/19/95	208	299520
11/20/95	190	273600
11/21/95	180	259200
11/22/95	160	230400
11/23/95	160	230400
11/24/95	120	172800
11/25/95	100	144000
11/26/95	100	144000
11/27/95	100	144000
11/28/95	120	172800
11/29/95	140	201600
11/30/95	168	241920
	Subtotal #1:	15380640

Date	Gallons/ Minute	Gallons/Day
12/1/95	201.6	290304
12/2/95	202	290880
12/3/95	202	290880
12/4/95	200	288000
12/5/95	180	259200
12/6/95	160	230400
12/7/95	150	216000
12/8/95	120	172800
12/9/95	120	172800
12/10/95	130	187200
12/11/95	150	216000
12/12/95	150	216000
12/13/95	150	216000
12/14/95	150	216000
12/15/95	180	259200
12/16/95	180	259200
12/17/95	190	273600
12/18/95	230	331200
12/19/95	250	360000
12/20/95	240	345600
12/21/95	190	273600
12/22/95	200	288000
12/23/95	240	345600
12/24/95	240	345600
12/25/95	240	345600
12/26/95	240	345600
12/27/95	240	345600
12/28/95	260	374400
12/29/95	260	374400
	Subtotal #2:	8129664

Total Flow In Gallons : 23510304

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

135784

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/20/95
Sample Received: 12/6/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 38481

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	0.68	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	0.68	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	0.92	<0.13	0.13	0.00013
8. Benzo(a)pyrene	1.2	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	1.7	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	0.54	<0.17	0.17	0.00017
11. Chrysene	0.99	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	0.68	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

135389

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/12/95
Sample Received: 12/6/95

Sample Description: Wastewater Grab Effluent Outfall 12/6/95
Sample No.: 38482

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeler

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

134561

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/11/95
Sample Received: 12/6/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 38481

pH (units)	7.42
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowe except in its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

135292-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/20/95
Sample Received: 12/9/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 38844

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	0.5	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	0.6	<0.13	0.13	0.00013
8. Benzo(a)pyrene	0.8	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	1.0	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	0.5	<0.17	0.17	0.00017
11. Chrysene	0.5	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zehr

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

135292

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/13/95
Sample Received: 12/9/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 38844

pH (units)	7.40
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136287

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/12/95

Sample Description: Wastewater Composite Effluent Outfall 12/12/95
Sample No.: 39052

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136285

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/15/95

Sample Description: Wastewater Composite Effluent Outfall 12/15/95
Sample No.: 39499

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

135786

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/20/95
Sample Received: 12/15/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 39498

pH (units)	7.16
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136283

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/21/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 40148

pH (units)	6.86
Lead	<0.20
Zinc	0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 19th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136030

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/27/95
Sample Received: 12/24/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 40395

pH (units)	7.25
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136288

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/27/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 40520

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allow except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136284

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/27/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 40520

pH (units)	6.97
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 19th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

VIA FACSIMILE

January 3,1996

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Dredge Configuration

Dear Mr. Zintak:

Due to the restrictions placed on the dredging operations by the U.S. Coast Guard (i.e. 70 foot limit from dock wall toward center of canal), the following configuration has been suggested to alleviate all parties concerns and successfully complete the remediation efforts in the center of the canal:

1. Rigging;
   a. Dredge travel wire will run from a shore winch located at 250 feet east (see attached drawing) out to the East anchor (6,000 lb. wrecking ball) then parallel to the shoreline running west to the West anchor (6,000 lb. wrecking ball) then northwest to a winch located at the west boundary of Koppers Terminal. Each wrecking ball will be positioned in the deepest position in the center of the canal (approximately 140-160 feet south of the dock wall. The maximum height off the bottom will be 3 feet. The maximum draft of any barges traveling through this area is 14 feet. With a 20 foot depth of water in the 140-160 foot area simple math will show that 3 foot of clearance at a minimum will be maintained. The depth to the top of the wrecking balls will be confirmed daily by dragging a 15 foot line with a grappling hook attached over the area.

   b. Two 25 lb. weights will be added to the travel wire at either end of the dredge assisting the settling of the travel wire when traffic is approaching.

   c. The 6,000 lb. wrecking ball anchors will be rigged with a retrieval pendant in addition to the travel wire. The retrieval pendant will consist of a 3/4 inch cable 50 feet long that will run perpendicular to the dock wall where a 1/4 inch cable 200 feet long will attach and run to the dock wall.

The weight of the cable (1#/foot for 3/4 inch cable) will be more than sufficient to keep the cable in contact with bottom of the canal. The anchor buoy will be eliminated.

d. Removal of the anchors at the end of each work day seems unwarranted and unnecessary. The removal and replacement of these anchors every day would reduce the amount of daylight time available for remediation work and would result in a 30% increase in the amount of time needed to complete the project. It would also impede traffic through the canal for at least 2 to 3 hours/day and eliminate our only way of marking and tracking remediation work. I feel very strongly that the removal of these anchors will not provide any meaningful safety improvement to the project, but will only cause unnecessary delay.

   KII recognizes and accepts its responsibility for the placement and maintenance of the anchors in a manner that provides adequate draft clearance to permit safe passage of all canal traffic

2. Oncoming Traffic procedure;
   a. Upon notice of approaching traffic, dredging activities will cease. The shore team will slack the travel wire allowing the dredge operator to bring the dredge North to the 50 ft. position. The operator will verify that the travel wire fore and aft has settled to the bottom via the attached weights. The rigging will be in contact with the bottom of the canal with a minimum clearance of 15ft. over the 6,000 lb. anchors.

   b. The containment boom will be placed at the furthest eastern and western position (approximately 300 foot. east and 900 foot. west). The containment boom will be held in a position across the canal by a 21 ft. pontoon type watercraft (see attached drawing).

   c. As oncoming traffic approaches, the watercraft will converge toward each other and inward to the 55-60 ft. position.

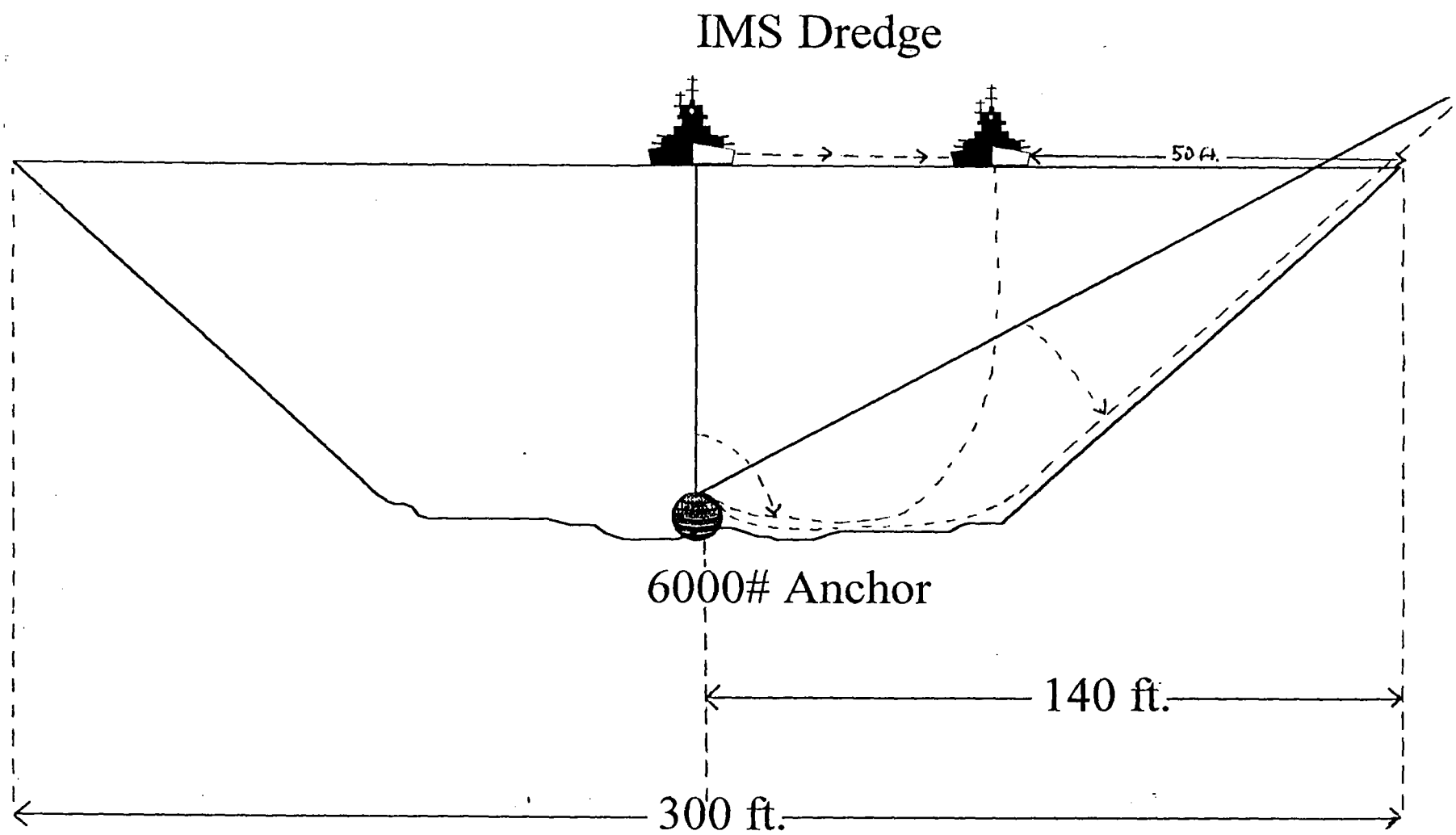
Assuming continuation of current remediation rates, I expect the vacuuming from the 70 ft. position to the dock wall will be completed by Friday, January 5, 1996. Assuming the above mentioned configuration will be acceptable to all parties, the vacuuming effort at the 140 ft. position should begin on Monday, January 8, 1995. Approximately three weeks will be needed to complete the remediation from the 140 ft. position to the 70 ft. position.

If you have any further questions, please call me at (708) 656-5900.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: R. Harsh
G. E. Trent III
W. E. Swearingen K-1801
James R. Morrin, Esq.


IMS Dredge
50 ft.
6000# Anchor
140 ft.
300 ft.

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

VIA FACSIMILE

January 8,1996

Mr. Thomas Scott Kuhaneck
U. S. Coast Guard
Marine Safety Office Chicago
215 West 83RD Street
Suite D
Burr Ridge, IL 60521

RE: Dredge Configuration

Dear Mr. Kuhaneck:

Due to the concerns related to any wires remaining in the canal during off-shift hours, following configuration has been suggested to alleviate these concerns and successfully complete the remediation efforts in the center of the canal:

1. Rigging;
   a. Dredge travel wire will run from a shore winch located at 300 feet east (see attached drawing) out to a block attached to the East anchor (6,000 lb. wrecking ball) located at 125 feet east and as close to the south shore as physically possible. A buoy will be attached to the anchor to warn traffic traversing through the area and a 3/4 inch by 50 foot cable attached at one end to the anchor and a block at the other end with the travel wire running through it. The travel wire would then run parallel to the shoreline running west to a block attached by a 50 foot by 3/4 inch to the West anchor (6,000 lb. wrecking ball with buoy attached) then northwest to a winch located at the west boundary of Koppers Terminal. In addition, strobe lights will be attached to the buoys for warning night traffic of their location.

   b. The two blocks will weigh approximately 50 pounds each assisting the settling of the travel wire when traffic is approaching.

   c. The 6,000 lb. wrecking ball anchors will be rigged with a 3/8 inch stabilizing wire that will be used to secure the anchors to the south shore and keep them from sliding downslope toward the center of the canal.

d. Removal of the anchors at the end of each work day seems unwarranted and unnecessary. The removal and replacement of these anchors every day would reduce the amount of daylight time available for remediation work and would result in a 30% increase in the amount of time needed to complete the project. It would also impede traffic through the canal for at least 2 to 3 hours/day and eliminate our only way of marking and tracking remediation work. I feel very strongly that the removal of these anchors will not provide any meaningful safety improvement to the project, but will only cause unnecessary delay.

   KII recognizes and accepts its responsibility for the placement and maintenance of the anchors in a manner that provides adequate draft clearance to permit safe passage of all canal traffic

2. Oncoming Traffic procedure;
   a. Upon notice of approaching traffic, dredging activities will cease. The shore team will slack the travel wire allowing the dredge operator to bring the dredge North to the 50 ft. position or closer if needed. The operator will verify that the travel wire fore and aft has settled to the bottom. The rigging will be in contact with the bottom of the canal.

   b. The containment boom will be placed at the furthest eastern and western position (approximately 300 foot. east and 900 foot. west). The containment boom will be held in a position across the canal by a 21 ft. pontoon type watercraft (see attached drawing).

   c. As oncoming traffic approaches, the watercraft will converge toward each other and inward to the 55-60 ft. position.

3. Offshift Rigging Configuration
   a. During offshift hours all cables will be removed from the canal with the exception of the 3/8 inch cable used to secure the anchor to the south shore and the 3/4 inch cables with blocks attached which will be secured to the south shore. Both of these cables will run from the anchors to the south shore with the anchor buoys marking the locations of the anchors.

Assuming continuation of current remediation rates, I expect the vacuuming from the 70 ft. position to the dock wall will be completed by Monday, January 8, 1996. Assuming the above mentioned configuration will be acceptable to all parties, the vacuuming effort at the 140 ft. position should begin on Thursday, January 11, 1995. Approximately three weeks will be needed to complete the remediation from the 140 ft. position to the 70 ft. position.

If you have any further questions, please call me at (708) 656-5900.

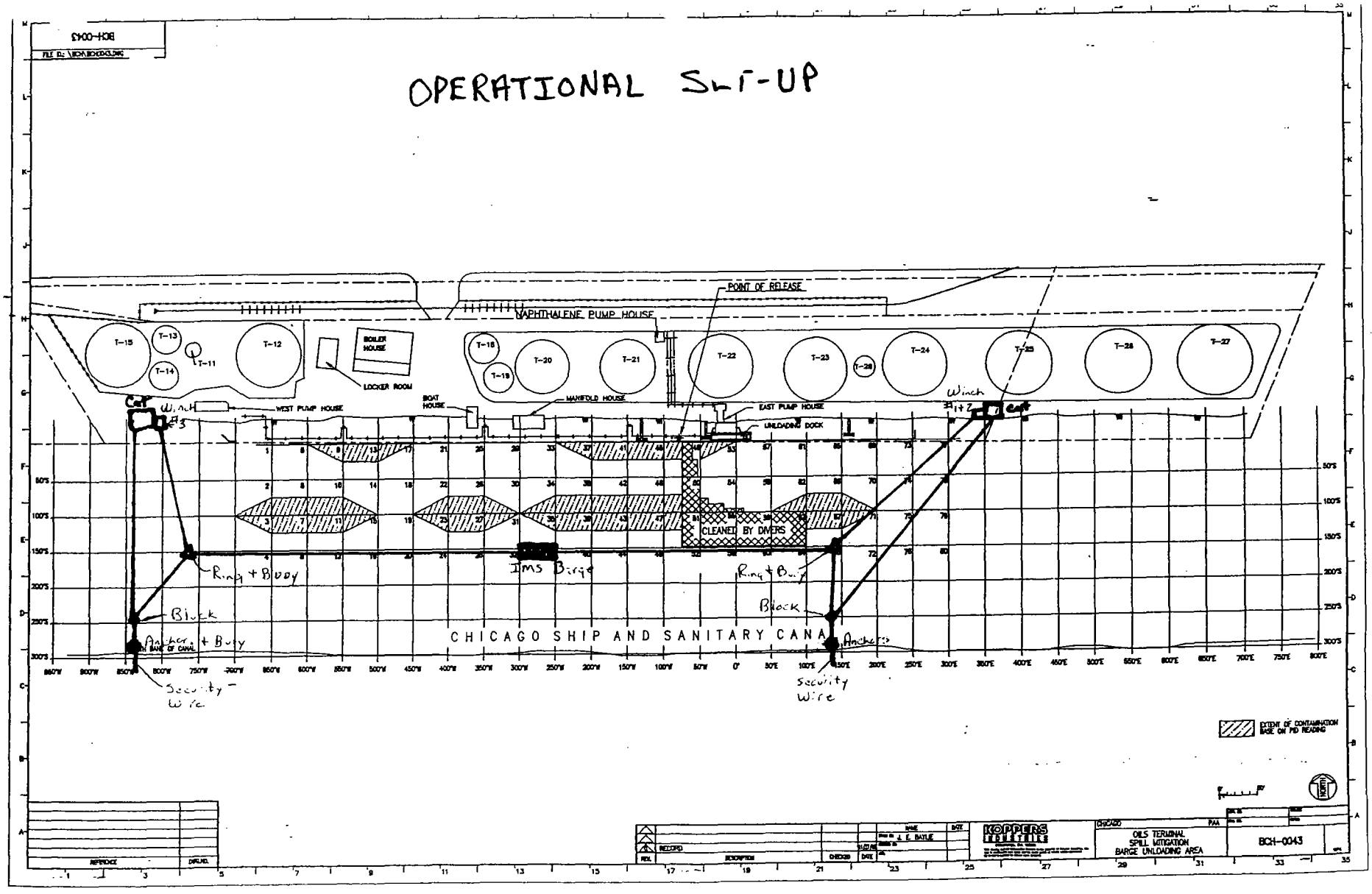
Sincerely,

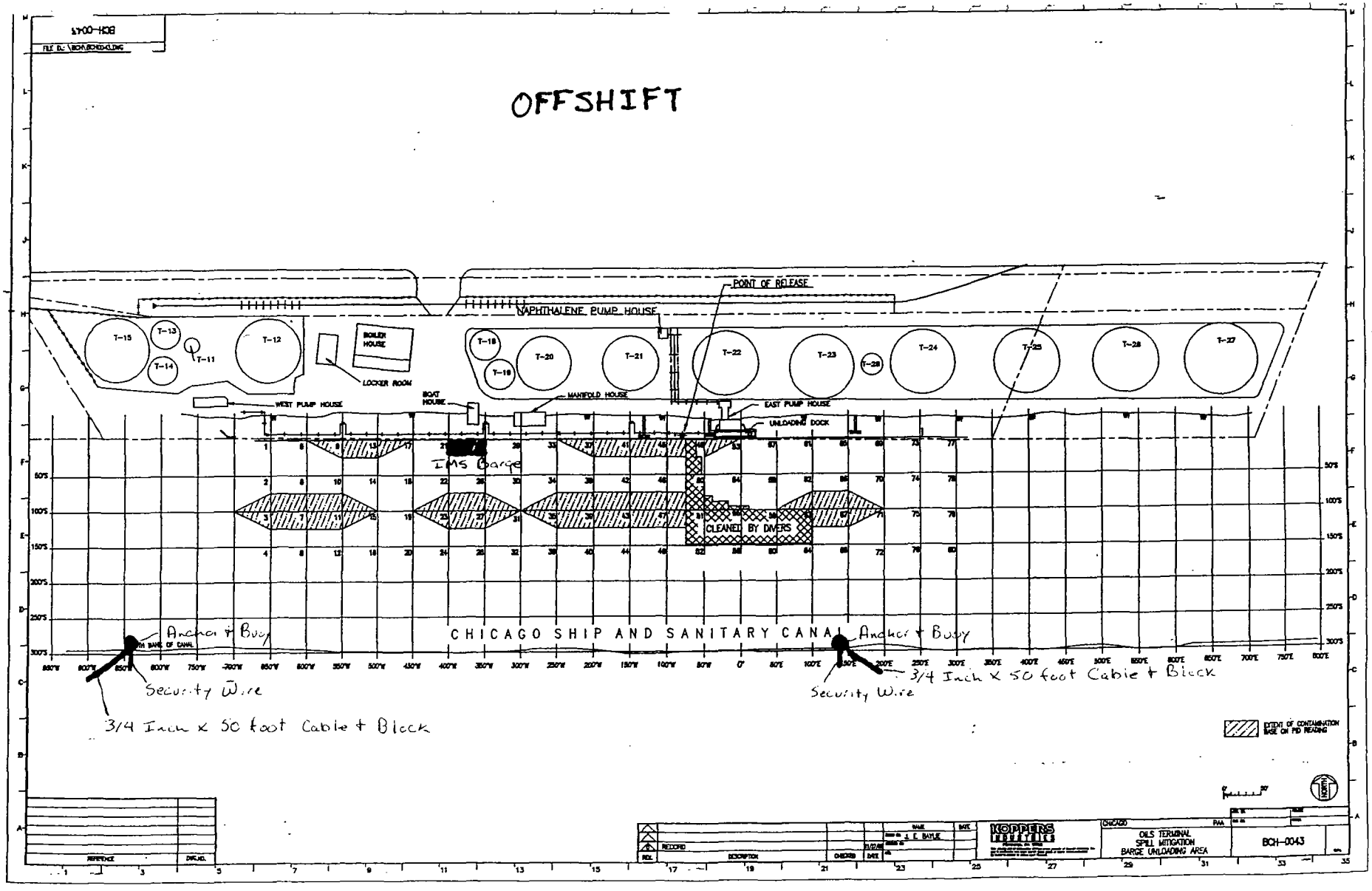
Mark A. Cilley

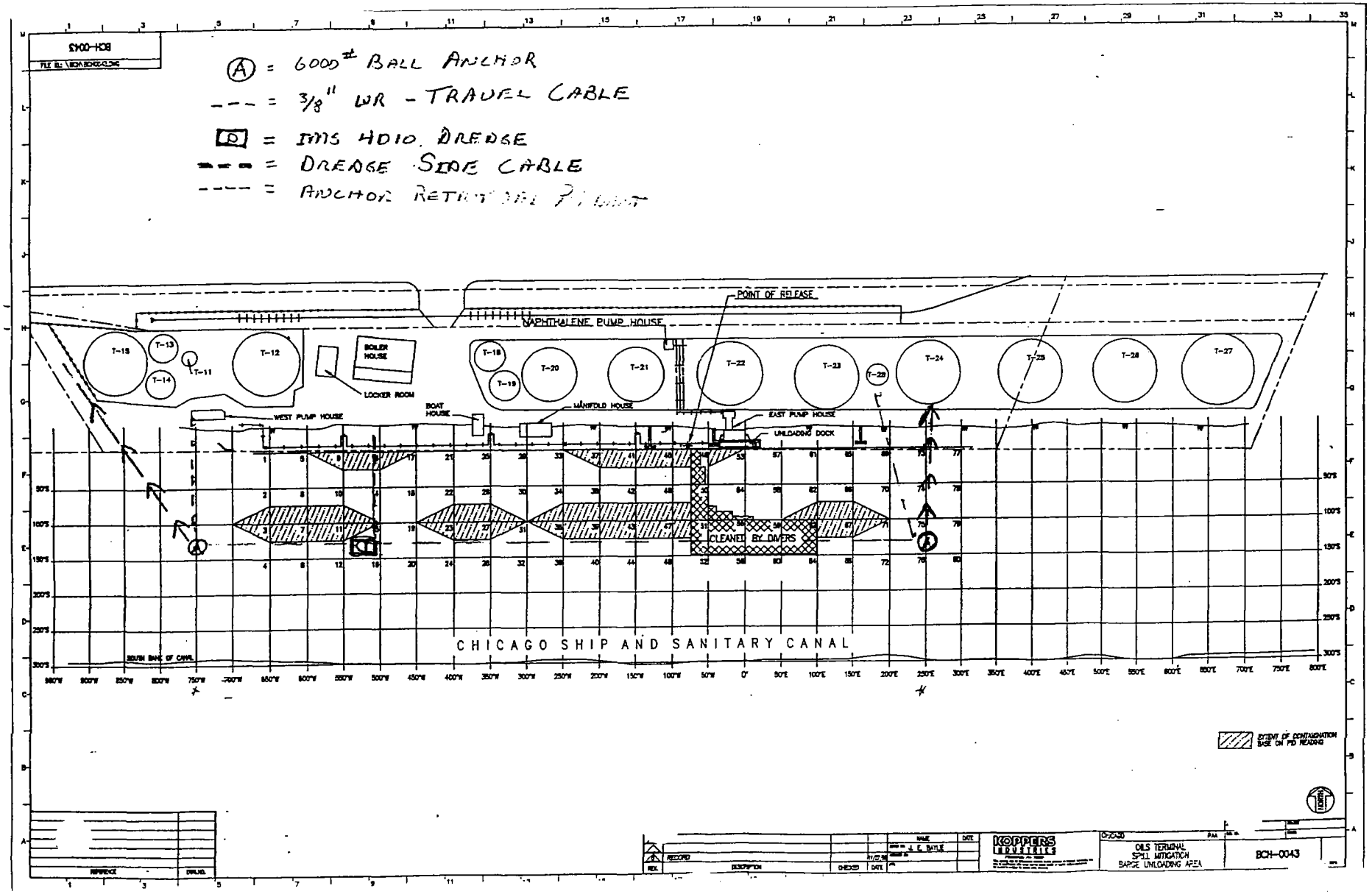
Mark A. Cilley
Env., Health and
Safety Manager

cc: R. Harsh
G. E. Trent III
W. E. Swearingen K-1801
James R. Morrin, Esq.
Karen Vendl OSC USEPA

OPERATIONAL SET-UP




OFFSHIFT
POINT OF RELEASE
NAPHTHALENE PUMP HOUSE
T-15
T-13
T-14
T-11
T-12
BOILER HOUSE
LOCKER ROOM
T-18
T-19
T-20
T-21
T-22
T-23
T-28
T-24
T-25
T-26
T-27
WEST PUMP HOUSE
BOAT HOUSE
MANIFOLD HOUSE
EAST PUMP HOUSE
UNLOADING DOCK
IMS Barge
CLEANED BY DIVERS
CHICAGO SHIP AND SANITARY CANAL
Anchor + Buoy
Anchor + Buoy
Security Wire
Security Wire
3/4 Inch x 50 foot Cable + Block
3/4 Inch x 50 foot Cable + Block
EXTENT OF CONTAMINATION BASE ON PID READING
NORTH
KOPPERS INDUSTRIES
CHICAGO
OILS TERMINAL
SPILL MITIGATION
BARGE UNLOADING AREA
BCH-0043
REFERENCE
DWG.NO.
REV.
RECORD
DESCRIPTION
CHECKED
DATE
NAME
J. E. BAYLE



BCH-0043
(A) = 6000# BALL ANCHOR
--- = 3/8" WR - TRAVEL CABLE
[D] = IMS 4D10 DREDGE
= DREDGE SIDE CABLE
---- = ANCHOR RETRIEVAL PIGGIT
POINT OF RELEASE
NAPHTHALENE PUMP HOUSE
BOILER HOUSE
LOCKER ROOM
WEST PUMP HOUSE
BOAT HOUSE
MANIFOLD HOUSE
EAST PUMP HOUSE
UNLOADING DOCK
CLEANED BY DIVERS
CHICAGO SHIP AND SANITARY CANAL
SOUTH BANK OF CANAL
EXTENT OF CONTAMINATION BASE ON PID READING
KOPPERS INDUSTRIES
J. E. BAYLE
OILS TERMINAL
SPILL MITIGATION
BARGE UNLOADING AREA
BCH-0043

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

VIA FACSIMILE

January 12,1996

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

RE: Bi Weekly Progress Report

Dear Mr. Zintak:

Since the last report, Superior Special Services, Inc. continued their vacuuming operations and has completed the section from 10 feet south to 0 feet south and from 50 feet east to 720 feet west. Only one spot remains against the bulkhead which will require more passes to complete. On Thursday January 4, 1995, (due to increased water volumes) vacuuming ceased as the storm water surge tank had reached capacity. On Sunday, January 7, 1996, the agitator bearings failed on the aeration tank causing a shutdown of the wastewater treatment system. A new gear box had to be ordered and repairs are expected to be complete on January 16, 1996. All vacuuming activities can not resume until these repairs are completed and the level in the storm water surge tank can be brought down to a manageable level. It is expected that all activities will resume on January 22, 1996.

FG Enterprises has continued to remove the dredged material from the API separators which is being stabilized using bottom ash from American Fly Ash Company. As of this date 68 loads (approximately 7 cubic yards each) have been removed and stabilized from the API separators. 78 loads (approximately 15 cubic yards each and weighing 2,757,020 pounds) of stabilized coal tar and sediment have been shipped to County Environmental of Livingston (copies of manifest from shipments since the last report are attached).

Additional plans for completing the vacuuming outside the 70 foot limit have been accepted verbally by the U.S. Coast Guard.

Environmental Testing Services (ETS) is currently working on the revised draft confirmation of cleanup sampling plan. It is expected that early next week January 16th or 17th, 1996, the final version should be submitted.

RE: Bi Weekly Progress Report

The total volume of treated water discharged to the Chicago Sanitary and Shipping Canal is 26,620,704 gallons. Attached is a table of daily flows and analytical results of the discharge.

If you have any further questions, please call me at (708) 656-5900.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: R.Harsh
G. E. Trent III
W. E. Swearingen K-1801
James R. Morrin, Esq.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. [illegible]

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: [illegible] Industries, Inc. 3400 S. Lawrence Ave. Cicero, IL 60650

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* [illegible]-5900

A. Illinois Manifest Document Number: IL 6809969 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	001	DT	00015	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15 yds

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] Signature: [illegible] Date: Month Day Year [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 96002 | 2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave. Cicero, IL 60650

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809970 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3580 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-2911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	0.0.1	DT	0.0.0[illegible]	Y	EPA HW Number XX; Authorization Number 9424.00
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15 yds - 30 yds [illegible]

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark D. Cilley E H+S Mgr. | Signature: [signature] | Date: Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

In case of a spill call the Illinois Office of Emergency Response at 217/782-7860 and the National Response Center at 800/424-8802 or 202/426-2675.

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 96003

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave Cicero IL 60650

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809971 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316230004

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3880 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	004	DT	0000	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15 yds; 2nd Load - 15 yds = 30 yds

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark A. Cilley E.H+S Mgr. Signature: Mark A. Cilley Date: Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] Signature: [illegible] Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

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STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

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FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

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PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. [illegible] | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Lacombe Ave. Cicero, IL 60650 | Location If Different

4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" 708-1654-5000

A. Illinois Manifest Document Number: IL 6809972 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316680004

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-7380 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. Of Livingston RR #3 Box 646 Pontiac IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3511

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tr. + Soil Non-Hazardous	0.01	DT	0.0[illegible]	Y	EPA HW Number XX; Authorization Number 941400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

I. Additional Description for Materials Listed Above: 1st Load - 15yds; 2nd Load - 15yds

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mark H. Gill, E H+S Mgr. | Signature: [signature] | Date: Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials | Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials | Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. | Printed/Typed Name | Signature | Date: Month Day Year

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 96005 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 2900 S. Laramie Ave. Cicero IL 60650 | Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-5900

A. Illinois Manifest Document Number: IL 6809973 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0311280004

5. Transporter 1 Company Name: Waste Systems | 6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Env. of Livingston RR #3 Box 646 Pontiac IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	001	DT	0001	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

Additional Description for Materials Listed Above: 1st Load - 15yds [illegible]

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mark P. Cilley E.H+S Mgr. | Signature: [signature] | Date: Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

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COPY 5. GENERATOR MAIL TO IEPA
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STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. [illegible]

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Rogers Industries Inc. 3400 S. Laramie Ave. Cicero IL 60650

Location If Different

A. Illinois Manifest Document Number: IL 6809977 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 031628000H

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 708-656-[illegible]

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0707

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Em. of Livingston RR #3 Box 646 Pontiac, IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	[illegible]	DT	[illegible]	Y	EPA HW Number XX; Authorization Number [illegible]
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15 yds [illegible]

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mark A. Gilley EH+S Mgr. | Signature: [illegible] | Date: Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

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FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039. Expires 9-30-96

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. [illegible]

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: [illegible] Industries Inc. [illegible] Ave. [illegible]

Location If Different

4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" [illegible] 56-5900

A. Illinois Manifest Document Number: IL 6809978 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316[illegible]

5. Transporter 1 Company Name: [illegible] Systems

6. US EPA ID Number

C. Illinois Transporter's ID: [illegible]

D. (708) 597-3580 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Farm of Livingston, RR#3 Box 646, Pontiac, IL 61764-[illegible]

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Soil Tar + Soil NON-Hazardous	001	DT	0003	Y	EPA HW Number XX; Authorization Number [illegible]
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15 yds

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 government regulations.

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Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month Day Year [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month Day Year [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature: [illegible] | Date: Month Day Year [illegible]

GENERATOR

TRANSPORTER

FACILITY

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COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

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FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. [illegible] | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 3900 S. Laramie Ave [illegible] IL [illegible] | Location If Different

4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" [illegible]-666-5900

A. Illinois Manifest Document Number: IL 6809979 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316280004

5. Transporter 1 Company Name: [illegible] | 6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708) 597-3380 Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Ent. of Livingston RR #3 Box 64[illegible] Pontiac IL 61764-0646 | 10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815) 844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil Non-Hazardous	0.04	DT	[illegible]	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15 yds [illegible]

K. Handling Codes for Wastes Listed Above In Item #14

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Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month 01 Day 10 Year 96

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL 6809981 FEE PAID IF APPLICABLE

B. Illinois Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. Illinois Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address

10. US EPA ID Number

G. Illinois Facility's ID

H. Facility's Phone

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.					EPA HW Number / Authorization Number
b.					EPA HW Number / Authorization Number
c.					EPA HW Number / Authorization Number
d.					EPA HW Number / Authorization Number

J. Additional Description for Materials Listed Above

1st Load - 15 yds

2nd Load - 15 yds

K. Handling Codes for Wastes Listed Above In Item #14

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Printed/Typed Name | Signature | Date (Month Day Year)

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date (Month Day Year)

FACIL

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date (Month Day Year)

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039. Expires 9-30-96

In case of a spill call the Illinois Office of Emergency Response at 217 / 782-7860 and the National Response Center at 800 / 424-8802 or 202 / 426-2675.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. [illegible]

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Koppers Industries, Inc. 2400 S. Laramie Ave. Cicero IL 60650

Location If Different

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL 6809982 FEE PAID IF APPLICABLE

B. Illinois Generator's ID: 0316[illegible]0004

5. Transporter 1 Company Name: Waste Systems

6. US EPA ID Number

C. Illinois Transporter's ID: 0207

D. (708)597-3580 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address: County Farm of Livingston RR #3 Box 646 Pontiac IL 61764-0646

10. US EPA ID Number

G. Illinois Facility's ID: 1058210002

H. Facility's Phone: (815)844-3911

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Coal Tar + Soil NON-Hazardous	0.04	DT	00030	Y	EPA HW Number XX; Authorization Number 942400
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Description for Materials Listed Above: 1st Load - 15yds; 2nd Load - 15 yds = 30 yds

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby delare 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 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 selected the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] Signature: [illegible] Date: Month Day Year [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] Signature: [illegible] Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1001 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA
(RCRA AND PCB WASTES)

EFFLUENT OUTFALL DAILY FLOW

Date	Gallons/ Minute	Gallons/Day
10/11/95	180	259200
10/12/95	190	273600
1[illegible]3/95	210	302400
1[illegible],4/95	200	288000
10/15/95	195	280800
10/16/95	195	280800
10/17/95	195	280800
10/18/95	195	280800
10/19/95	195	280800
10/20/95	200	288000
10/21/95	200	288000
10/22/95	200	288000
10/23/95	200	288000
10/24/95	200	288000
10/25/95	200	288000
10/26/95	200	288000
10/27/95	250	360000
10/28/95	265	381600
10/29/95	265	381600
10/30/95	265	381600
10/31/95	265	381600
11/1/95	265	381600
11/2/95	265	381600
11/3/95	260	374400
11/4/95	260	374400
11/5/95	260	374400
11/6/95	260	374400
[illegible]/95	260	374400
11/8/95	160	230400
11/9/95	260	374400
11/10/95	190	273600
11/11/95	200	288000
11/12/95	260	374400
11/13/95	260	374400
11/14/95	260	374400
11/15/95	260	374400
11/16/95	260	374400
11/17/95	270	388800
11/18/95	260	374400
11/19/95	208	299520
11/20/95	190	273600
11/21/95	180	259200
11/22/95	160	230400
11/23/95	160	230400
11/24/95	120	172800
11/25/95	100	144000
11/26/95	100	144000
11/27/95	100	144000
11/28/95	120	172800
11/29/95	140	201600
11/30/95	168	241920

Subtotal #1: 15380640

Date	Gallons/ Minute	Gallons/Day
12/1/95	201.6	290304
12/2/95	202	290880
12/3/95	202	290880
12/4/95	200	288000
12/5/95	180	259200
12/6/95	160	230400
12/7/95	150	216000
12/8/95	120	172800
12/9/95	120	172800
12/10/95	130	187200
12/11/95	150	216000
12/12/95	150	216000
12/13/95	150	216000
12/14/95	150	216000
12/15/95	180	259200
12/16/95	180	259200
12/17/95	190	273600
12/18/95	230	331200
12/19/95	250	360000
12/20/95	240	345600
12/21/95	190	273600
12/22/95	200	288000
12/23/95	240	345600
12/24/95	240	345600
12/25/95	240	345600
12/26/95	240	345600
12/27/95	240	345600
12/28/95	260	374400
12/29/95	260	374400
12/30/95	270	388800
12/31/95	270	388800
1/1/96	270	388800
1/2/96	270	388800
1/3/96	270	388800
1/4/96	270	388800
1/5/96	270	388800
1/6/96	270	388800

Subtotal #2: 11240064

Total Flow In Gallons : 26620704

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

135389

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/12/95
Sample Received: 12/6/95

Sample Description: Wastewater Grab Effluent Outfall 12/6/95
Sample No.: 38482

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136287

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/12/95

Sample Description: Wastewater Composite Effluent Outfall 12/12/95
Sample No.: 39052

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136475

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 1/3/96
Sample Received: 12/14/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 39498

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	0.58	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	0.57	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	0.55	<0.13	0.13	0.00013
8. Benzo(a)pyrene	0.53	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	0.89	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	0.2	<0.17	0.17	0.00017
11. Chrysene	0.46	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	0.61	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	0.88	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136285

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/15/95

Sample Description: Wastewater Composite Effluent Outfall 12/15/95
Sample No.: 39499

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

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708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

135785

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/20/95
Sample Received: 12/18/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 39659

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	0.6	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	12.3	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	11.9	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	2.4	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	1.8	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	23.7	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	71.1	<0.76	0.76	0.00076
16. Phenanthrene	2.	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136286

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/18/95

Sample Description: Wastewater Composite Effluent Outfall 12/18/95
Sample No.: 39660

	Compound Purgeables	Concentration Found In Sample	Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136291

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/18/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 39659

pH (units)	6.65
Lead	<0.20
Zinc	0.42

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 19th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136283-A

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 1/3/96
Sample Received: 12/21/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 40148

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Concentration Found In Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	Method Detection Limits ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	.83	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	.85	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136478

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 1/3/96
Sample Received: 12/21/95

Sample Description: Wastewater Composite Effluent Outfall 12/21/95
Sample No.: 40149

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	0.011	<0.001	0.001
4.	Xylene	0.005	<0.001	0.001
	TOTAL BETX	0.016		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136283

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/21/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 40148

pH (units)	6.86
Lead	<0.20
Zinc	0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 19th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136476

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 1/3/96
Sample Received: 12/24/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 40395

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	2.6	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	2.6	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	2.63	<0.13	0.13	0.00013
8. Benzo(a)pyrene	2.93	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	3.9	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	0.74	<0.17	0.17	0.00017
11. Chrysene	2.1	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	1.54	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	1.6	<0.76	0.76	0.00076
16. Phenanthrene	0.52	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeh

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136477

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 1/3/96
Sample Received: 12/24/95

Sample Description: Wastewater Grab Effluent Outfall 12/24/95
Sample No.: 40396

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	0.002	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	0.010	<0.001	0.001
	TOTAL BETX	0.012		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136030

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/27/95
Sample Received: 12/24/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 40395

pH (units)	7.25
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136288

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/27/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 40520

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	<0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	<0.13	<0.13	0.13	0.00013
8. Benzo(a)pyrene	<0.23	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	<0.18	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	<0.17	<0.17	0.17	0.00017
11. Chrysene	<0.2	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zehner

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136406

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 1/2/96
Sample Received: 12/27/95

Sample Description: Wastewater Grab Effluent Outfall 12/27/95
Sample No.: 40522

	Compound Purgeables	Concentration Found In Sample	Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	TOTAL BETX	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeber

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136284

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 12/29/95
Sample Received: 12/27/95

Sample Description: Wastewater Composite - Effluent Outfall
Sample No.: 40520

pH (units)	6.97
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 19th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Vogel

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136474

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 1/3/96
Sample Received: 12/30/95

Sample Description: Wastewater Grab Effluent Outfall 12/30/95
Sample No.: 40745

	Compound Purgeables	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	0.002	<0.001	0.001
3.	Toluene	0.003	<0.001	0.001
4.	Xylene	0.011	<0.001	0.001
	TOTAL BETX	0.016		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8260, in accordance with SW-846, Third Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136375

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 1/3/96
Sample Received: 12/30/95

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 40744

pH (units)	7.53
Lead	<0.20
Zinc	<0.10

All results expressed as ppm unless otherwise indicated.

Analyses performed using "Standard Methods for the Examination of Water and Wastewater", 19th Edition.

The contents of this report apply to the sample analyzed. No duplication of this report is allowed except its entirety.

Gary W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
708/967-6666
FAX: 708/967-6735

LABORATORY REPORT

136479

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Report Date: 1/3/96
Sample Received: 1/2/96

Sample Description: Wastewater Composite Effluent Outfall
Sample No.: 40770

Reportable Compound PNA'S and Naphthalene	Concentration Found In Sample ppb	Blank ppb(ug/L)	Method Detection Limits ppb(ug/L)	ppm(mg/L)
1. Naphthalene	<0.5	<0.5	0.5	0.0005
2. Acenaphthene	<0.5	<0.5	0.5	0.0005
3. Anthracene	<0.5	<0.5	0.5	0.0005
4. Fluoranthene	<0.5	<0.5	0.5	0.0005
5. Fluorene	<0.2	<0.2	0.2	0.0002
6. Pyrene	0.4	<0.4	0.4	0.0004
Carcinogenic PNAs				
7. Benzo(a)anthracene	0.3	<0.13	0.13	0.00013
8. Benzo(a)pyrene	0.5	<0.23	0.23	0.00023
9. Benzo(b)fluoranthene	0.5	<0.18	0.18	0.00018
10. Benzo(k)fluoranthene	0.3	<0.17	0.17	0.00017
11. Chrysene	0.3	<0.2	0.2	0.0002
12. Dibenzo(a,h)anthracene	<0.3	<0.3	0.3	0.0003
13. Indeno(1,2,3,-c,d)pyrene	<0.43	<0.43	0.43	0.00043
Non-Carcinogenic PNAs				
14. Acenaphthylene	<0.3	<0.3	0.3	0.0003
15. Benzo(g,h,i)perylene	<0.76	<0.76	0.76	0.00076
16. Phenanthrene	<0.2	<0.2	0.2	0.0002

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA approved Method No. 625 in accordance with 40 CFR136.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zeher

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

TURNAROUND TIME:
☒ RUSH
___ day turnaround
☐ ROUTINE

Chain of Custody Record

Due Date: ___-___-___ COC #: 33785

Company: Koppers Industries
Address: 39th & Laramie
Chicago, Il

Phone #: (___)___-___ Fax #: (___)___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: Rob Hirsh
Project ID / Location: Comp.

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Other: ___

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PNA's, pH, Pb, Zn	BTEX, pH													Comments
Effluent EVC	1	37ml	G	3	12/24	10:35			X														
Effluent Grab	↓	↓ 40ml	↓	1/3	↓	↓				X													

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: 12-24-93 Time: 10:51	Received By: [signature]	Date: 12-24-93 Time: 10:52	Witness:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		☐ TEMPERATURE

SPECIAL INSTRUCTIONS:

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

TURNAROUND TIME:
☒ RUSH
___ day turnaround
☐ ROUTINE

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

708-967-6666
FAX: 708/967-6735

Due Date: ___-___-___ COC #: 33763

Company: Koppers
Address: 33th & Laramie

Phone #: (___) ___-___ Fax #: (___) ___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: Rob Hash
Project ID / Location: Compliance

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue

Container Type:
P - Plastic
G - Glass
V - VOC
B - Bag
O - Other

Other : ___

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

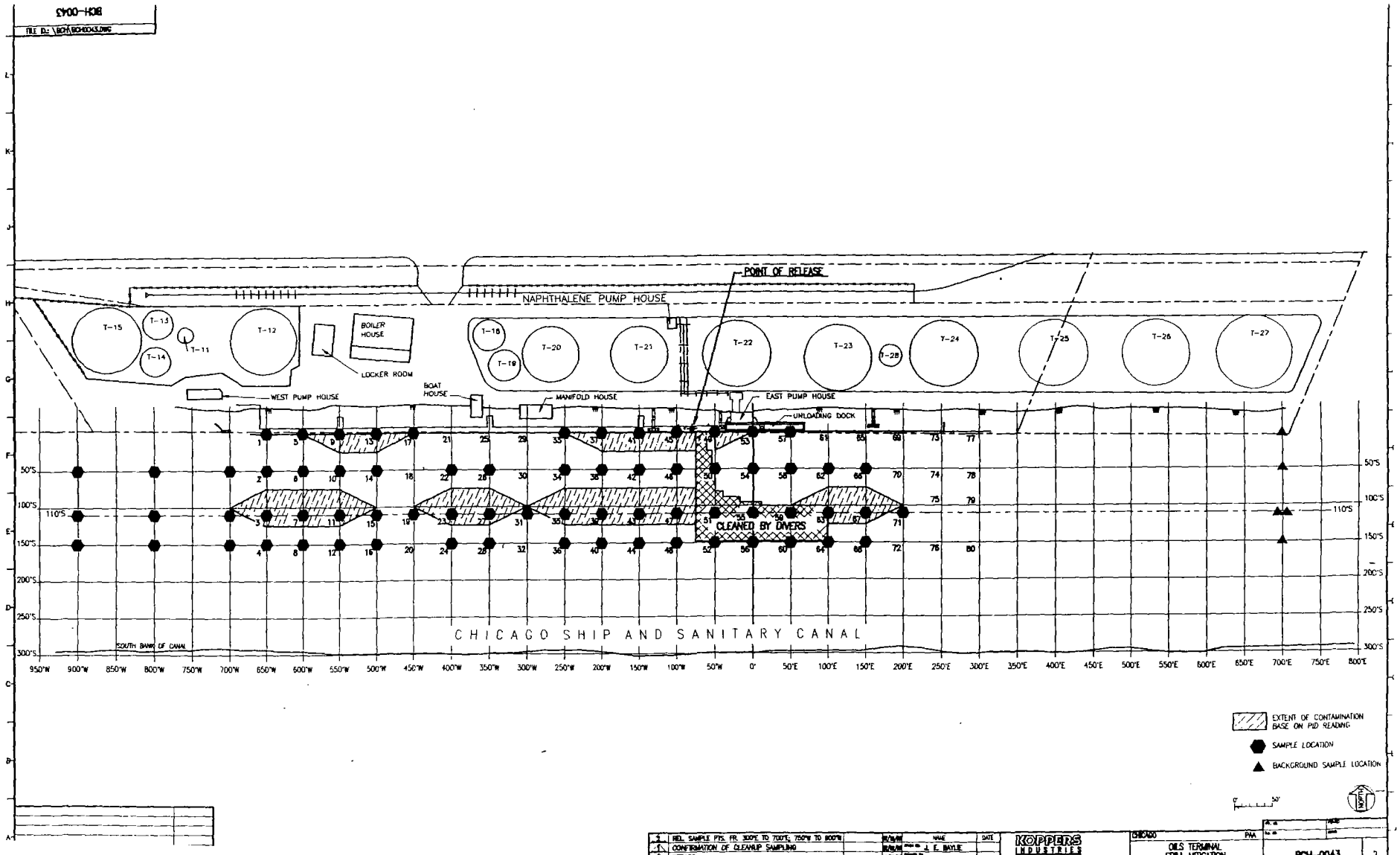
Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	PNA's, pH, Zn	BTEX, pH	Comments
Effluent EUC	1	32oz	G	3	1/2/96	11:20			X		
Effluent Grab	↓	↓ 1 liter	↓	1/3	↓	↓				X	

EMT REQUIRES PRIOR NOTICE OF SAMPLES CONTAINING CYANIDE. EMT SAMPLE RETURN POLICY ON BACK.

Relinquished By:	Date: -- -- Time: :	Received By: Thomas S. Reising	Date: 1-2-96 Time: 11:40	Witness:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: -- -- Time: :	Received For Lab By:	Date: -- -- Time: :		☐ TEMPERATURE

SPECIAL INSTRUCTIONS:


BCH-0043
POINT OF RELEASE
NAPHTHALENE PUMP HOUSE
BOILER HOUSE
LOCKER ROOM
WEST PUMP HOUSE
BOAT HOUSE
MANIFOLD HOUSE
EAST PUMP HOUSE
UNLOADING DOCK
CLEANED BY DIVERS
CHICAGO SHIP AND SANITARY CANAL
SOUTH BANK OF CANAL
EXTENT OF CONTAMINATION BASE ON PID READING
SAMPLE LOCATION
BACKGROUND SAMPLE LOCATION
NORTH
REL. SAMPLE PTS. FR. 300'E TO 700'E; 750'W TO 800'W
CONFIRMATION OF CLEANUP SAMPLING
J. E. BAYLIE
KOPPERS INDUSTRIES
CHICAGO
OILS TERMINAL
PAA

KOPPERS INDUSTRIES

Koppers Industries, Inc.
3900 S. Laramie Avenue
Cicero, IL 60650

Telephone: (708) 656-5900
FAX: (708) 656-6079

VIA FACSIMILE

January 26,1996

Mr. Leonard N. Zintak, Jr. (OSC)
U. S. EPA
Region V
Emergency Response Branch
77 W. Jackson Blvd. HSE-5J
Chicago, IL 60604

Post-it® Fax Note 7671	Date 1-26-96	# of pages ▶ 2
To Len Zintak	From Mark Ciley	
Co./Dept. USEPA	Co. Koppers	
Phone # 312-886-4246	Phone # 708-656-5900	
Fax # 312-353-9176	Fax # 708-656-6079	

RE: Bi Weekly Progress Report

Dear Mr. Zintak:

Since the last report, Superior Special Services, Inc. has completed the remaining section at the 0 feet south mark. On Tuesday, January 16, 1996, the agitator gearbox was replaced with a new unit. Upon start-up of the aeration tank problems were discovered with the bearings on the 250 h.p. motor. On Friday, January 19, the 250 h.p. motor was replaced and operations in the wastewater treatment plant resumed to normal. Also, on Tuesday, January 16, the first mobile Calgon carbon adsorber was replaced with a new unit due to minor breakthrough thought to be associated with suspended particle carryover. The new carbon adsober will now be the second in series.

On Thursday, January 25, the 6,000 lb. anchors were recovered and placed at the south bank as discussed in my letter to Mr. Scott Kuhanek. The associated rigging will be completed on Friday, January 26, and vacuuming in the center of the canal shall resume on Monday, January 29, 1996.

As of this date, I have not received any analysis from EMT. However, I have spoken with the laboratory and have gotten verbal analysis results which show treatment is operating within our limits. Copies of analysis will be forwarded with the next bi-weekly report along with volumes discharged.

Environmental Testing Services is currently preparing a revised confirmation of cleanup sampling plan as we discussed on Thursday, January 18, 1996. It is expected that this revision will be completed by January 31, 1996.

RE: Bi Weekly Progress Report

If you have any further questions, please call me at (708) 656-5900.

Sincerely,

Mark A. Cilley
Env., Health and
Safety Manager

cc: R. Harsh
G. E. Trent III
W. E. Swearingen K-1801
James R. Morrin, Esq.

CONFIRMATION OF CLEANUP SAMPLING AND QUALITY ASSURANCE PROJECT PLAN

Crude Tar Spill
Chicago Sanitary & Ship Canal
Koppers Industries, Inc.
Stickney Terminal
4100 South Laramie Avenue
Stickney, Illinois

Prepared for:

U.S. Environmental Protection Agency (U.S. EPA)
Region V
77 West Jackson Boulevard
Chicago, Illinois

Prepared Pursuant to:

Administrative Order
Docket No. V-W-96-AO-01
Issued October 5, 1995

Prepared by:

Koppers Industries, Inc.
3900 South Laramie Avenue
Stickney, Illinois

January 31, 1996

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Attachments

Attachment 1 EMT Quality Assurance Manual
Attachment 2 Site Safety Plan
Attachment 3 Air Monitoring Data
Attachment 4 Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils
Attachment 5 Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System)