STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD,
LOS ANGELES REGION

ORDER NO. 94 - 031

WASTE DISCHARGE REQUIREMENTS
FOR
H. KRAMER AND COMPANY
AND
HARSHAW CHEMICAL COMPANY AND ITS SUCCESSOR COMPANIES
(CAPPING OF SLAG PILE)
(FILE NO. 92-57)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. H. Kramer and Company (H. Kramer), an Illinois Corporation, owns an approximately eleven-acre facility located at 1 Chapman Way, El Segundo, California. H. Kramer purchased the site in 1951 and operated a brass foundry at this site until 1985. As part of the foundry, H. Kramer operated a blast furnace, bag house, several above ground storage tanks, process cooling water ponds, and an assay laboratory on the western one-half of the site. H. Kramer, as a result of the secondary smelting processes, produced a slag waste containing elevated levels of residual lead and copper. The waste slag was discharged into an existing large surface impoundment in the eastern one-half of the property eventually creating an approximately two-acre slag pile with a total volume of approximately 35,000 cubic yards.

2. Harshaw Chemical Company (Harshaw) owned the site previously and was engaged in smelting antimony on the site between 1941 and 1951. Harshaw is known to have discharged wastes containing arsenic and other byproducts of antimony smelting to the large surface impoundment on the eastern one-half of the site. Harshaw sold the property to H. Kramer in 1951. In the intervening years, Harshaw has been subject to various corporate reorganizations, mergers and acquisitions, and is no longer a separate corporate entity.

3. During the past several years, the State Department of Health Services-Toxic Substances Control Program (now Department of Toxic Substances Control) and the Federal Environmental Protection Agency (EPA) determined that the site posed a threat to health and the environment. EPA had directed an effort to stabilize the surface of the site from blown dust emissions, waste oil storage, cooling water ponds, and laboratory chemicals. H. Kramer completed a surficial cleanup under the EPA's supervision. In addition, an EPA directed

subsurface investigation had determined that the upper regional water unit, the " Old Dune Sand" aquifer, had been impacted by contaminants from the site, primarily arsenic. The wastes remaining in the large surface impoundment and the overlying slag pile are a continuing source of contaminants to the ground water.

4. This Regional Board issued Cleanup and Abatement Order (No. 92-094) dated December 28, 1992, to H. Kramer and Harshaw and its successor companies (hereafter called dischargers), which required that the respondents implement site investigations and remedial activities at the site. This Order indicated that additional requirements may be issued for cleanup at this site.

5. Subsequently, arsenic and other metals were detected in the investigations which involved the installation of a number of groundwater monitoring wells, a number of soil borings and a hydropunch investigation of the upper (Old Dune Sand) and lower (Gage) aquifers at site. Additional supplemental site investigations were performed in November 1992 and August 1993. The results indicated that the presence of a competent aquitard (Bellflower Aquiclude) beneath the site, established that the presence of arsenic in the Gage aquifer is largely contained within the site boundaries. Also, the Old Dune Sand and Gage aquifers beneath the site have been impacted by regional volatile organic compounds (VOCs) contamination.

6. A baseline health risk assessment was completed, in 1992, for existing conditions at the site. As a result, it was determined that risk to hypothetical "child trespassers" and "current on-site worker" from dermal and inhalation exposure to the slag pile exceeds acceptable levels.

7. Analytical results of samples collected from 22 roll-off bins at the site were submitted to this Regional Board on January 25, 1994. The dischargers are proposing to add the bin contents of 19 of the bins to the slag pile proposed for capping since the materials in the roll-off bins were generated by the same process that produced the slag. Analytical information is being prepared for Regional Board approval to assure no VOCs and Semi-VOCs exist in the bin material.

8. H. Kramer operated under Chapter 11 of the Bankruptcy Code from 1985 through 1992. As of December 31, 1992, the Bankruptcy Court confirmed a Plan of Reorganization for H. Kramer. The Bankruptcy Court continues to have jurisdiction over H. Kramer and the Property until the Plan is completed,

which by its terms, cannot occur before 1998. H Kramer's operations do not yield funds sufficient to support investigations or cleanup of the Property. Consequently, H. Kramer expects to rely on other sources for such funds, including, if available, proceeds from any sale of the property.

9. The dischargers have determined that it is in their best interests to cooperate in cleanup and abatement of this condition of pollution and threatened pollution. The dischargers have also agreed to arrange for and/or provide reimbursement for Regional Board staff oversight costs for this cleanup as provided in Section 13304 of the California Water Code.

10. The dischargers have proposed capping the slag pile as an alternative to prevent further contamination from the slag pile and underlying soil from impacting the ground water and public health. A Basis of Remedial Design Report was submitted to this Regional Board for review on November 23, 1993. Upon adoption of this Order, a final detail design will be initiated for the proposed capping system.

11. The Regional Board adopted a revised Water Quality Control Plan for Los Angeles River Basin on May 18, 1992. The Plan contains water quality objectives for ground water in the West Coast Basin, Coastal Plain Subunit.

12. Ground water in the Coastal Plain is beneficially used for municipal and domestic supply, agricultural supply, and industrial service and process supply, although, in certain locations, upper zones of ground water currently have no beneficial uses. No domestic water supply wells, screened in deeper underlying aquifers, are in operation within one mile of this site.

13. This project involves an action taken for the protection of the environment and, as such, is exempt from the provisions of the California Environmental Quality Act in accordance with California Code of Regulations, Title 14, Chapter 3, Section 15321.

The Board has notified the dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements with respect to the proposed remedy for this described past discharge and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments

pertaining to the proposed remedy for this described past discharge and to the tentative requirements.

IT IS HEREBY ORDERED, that H. Kramer and Company and Harshaw Chemical Company and its successor companies, shall comply with the following:

A. Requirements

1. Slag placed into the existing large surface impoundment in the eastern portion of the site shall conform to the requirements specified in Chapter 15, Title 23, California Code of Regulations (CCR), which includes but is not limited to the following:

   a. As per Section 2510(d) of the Chapter, the slag pile shall be considered an existing waste management unit and shall be closed and maintained during post-closure in accordance with Article 8 of this Chapter.

   b. In accordance with Section 2520(c), the dischargers shall be responsible for accurate characterization of wastes, and to whether or not wastes are required to be managed as hazardous wastes under applicable sections of Title 22 of the CCR.

   c. In accordance with Section 2550(a), the dischargers shall monitor groundwater. As per Section 2552, the following water quality protection standards are established for this facility:

Parameter	Objective (mg/l)
Total dissolved solids	800
Sulfate	250
Chloride	250
Boron	1.5

   As per Section 2551 (a-3), if such monitoring and reporting program establishes that any water quality protection standards have been exceeded at or downgradient of any point of compliance, the dischargers shall institute a corrective action program. This applies to exceedances directly attributed to past operations at the site and as a direct result of the capping remedy. The point of compliance and details of the monitoring and reporting program shall be determined, following

submittal of a proposal within 60 days of approval of the final cap design by Executive Officer. The compliance period shall extend into post-closure maintenance period until the dischargers demonstrate that water quality at these compliance points have not been further impacted by the chemicals of concern associated with past site activity for a period of three consecutive years.

d. Water quality protection standards may be modified by the Regional Board based on more recent or complete groundwater monitoring data, changes in background water quality, or for any other valid reason.

e. Closure and post-closure maintenance shall conform to Section 2580(c-3), General Closure Requirements of the Chapter 15. The dischargers shall submit, for approval by the Executive Officer, a work plan consisting of the design drawings and construction specifications for the proposed capping system and post-closure maintenance plan. The work plan shall detail how the slag pile shall be covered with an engineered cap, and closed as a landfill containing mainly dry, non-decomposable slag waste. No leachate collection or removal system is required. The work plan shall detail a workable method for identifying, removing and properly disposing of wood and vegetative material that could potentially impact the design performance of the cap. The slag shall be compacted in place, following such removal to achieve maximum compaction as a means to ensure protection of the capping system. The work plan shall include appropriate provisions of Article 5 (monitoring and reporting) and Article 6 (drainage control). The work plan shall state that final closure of this slag waste pile shall be in conformance with Section 2580, of the Chapter.

f. The capping design shall be directed and conducted by a California registered civil engineer or a certified engineering geologist. A copy of the final design shall be submitted to the Executive Officer for approval.

2. The elevated arsenic contaminated soils at other portion of the site need to be considered for remediation of all possible sources that could further pollute the groundwater. These areas with elevated arsenic

contaminated soils were discovered in the area of soil boring EB-1 through EB-5, MW-4, MW-5, HB-4 and B-6 based on the analytical results from the site characterization report prepared by ENSR Consulting and Engineering in February and on August 31, 1990. The monitoring and reporting program required in Item 1, above, shall address these points.

3. If the additional testing of samples collected from the 19 roll-off bins and the interpretation of the yellowish stain do not disclose the presence of VOCs, Semi-VOCs or other substances of concern not previously identified, the dischargers may place the bin contents on the slag pile prior to installation of the cap. If the requested analytical results disclose the presence of unexpected substances of any of the bins, the Executive Officer shall decide whether the contents of such bins will require additional treatment before placement on the slag pile or will be subject to other disposal requirements.

4. In the event that additional site cleanup, for the western portion, and other area within the eastern portion of the site, are required or that other monitoring and reporting requirements for these cleanup are required, additional Waste Discharge Requirements shall he issued

B. Provisions

1. The Regional Board and other authorized representative shall be allowed:

   a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

   b. Access to copy any records that are kept under the conditions of this Order:

   c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order, and;

   d. To photograph, sample, and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by applicable laws or regulations.

2. The dischargers shall obtain all permits necessary for the capping system from the appropriate State and local governmental agencies as required by law.

3. This Order does not exempt the dischargers from compliance with any other laws, regulations, or ordinances which may be applicable, it does not legalize these waste disposal facilities and it leaves unaffected any further restraints on those facilities which may be contained in other statues or required by other agencies.

4. This Order is not intended to stop or redirect any investigation or mitigation activities not required by this Order but ordered by this Regional Board or other agency.

5. When work is being performed on site, a copy of this Order shall be maintained at the site, and will be available at all times to operating personnel.

6. In accordance with Section 13260 of the Water Code, the dischargers shall file a report of any material change or proposed change in the character, location or volume of the discharge. Pursuant to Section 13269 of the Water Code, the provisions in Section 13260 may be waived with respect to the proposed remedy, based on this Boards determination that such a waiver is not against the public interest.

7. In the event of any change in name, ownership, or control of this facility, the dischargers shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Board.

8. The dischargers shall notify this Board immediately by telephone of any adverse condition resulting from this discharge or from operations producing this waste discharge, such notifications to be affirmed in writing with in one week from the date of such occurrence.

9. This Regional Board considers the dischargers to have continuing responsibility for correcting any problems which may arise in the future as a result of the capping system for the slag pile.

10. In accordance with Section 13267 of the Water Code, the dischargers shall furnish, under penalty of perjury, technical monitoring program reports; such reports shall

be submitted in accordance with specifications prepared by the Executive Officer, which specifications are subject to periodic revisions as may be warranted.

11. In accordance with Section 13263 of the Water Code, these waste discharge requirements are subject to periodic review and revision by this Regional Board.

12. An appropriate Health and Safety Plan for all assessment and mitigation activities at the site shall be filed with this Board prior to commencing any activities.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on April 4, 1994.

Robert P. Ghirelli

ROBERT P. GHIRELLI, D.Env.
Executive Officer

STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 7379
FOR
H. KRAMER AND COMPANY
AND
HARSHAW CHEMICAL COMPANY AND ITS SUCCESSOR COMPANIES
(CAPPING OF SLAG PILE)
(FILE NO. 92-57)

The dischargers shall implement this Monitoring and Reporting Program on the date of issuance of the Waste Discharge Requirements. The reports detailed in Order No. 94-031 shall be submitted as required.

The first monitoring report under this program is due the first quarter following the completion of the cap installation. Thereafter, monitoring reports shall be submitted by the date shown in the following schedule:

Reporting Period	Report Due
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15

I. GROUND WATER MONITORING

The ground water monitoring program for all approved wells at points of compliance in the Old Dune Sand and Gage Aquifers, shall, if required, include the following:

Parameter	Units	Frequency
Water elevation from datum (0.01 foot)		Quarterly
Arsenic and lead	mg/l	Quarterly
Total dissolved solids	mg/l	Semi-annually
Sulfate	mg/l	Semi-annually
Chloride	mg/l	Semi-annually
Boron	mg/l	Semi-annually
Turbidity	NTU	Semi-annually
pH	pH units	Semi-annually
Volatile organic compounds (EPA Method 624)	µg/l	Semi-annually

II. GENERAL PROVISIONS FOR SAMPLING AND ANALYSIS

A. All sampling, sample preservation, and analysis shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedure for Analysis of Pollutants," promulgated by the United States Environmental Protection Agency.

B. All chemical analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services, or approved by the Executive Officer. No changes shall be made in sampling points without prior approval of the Executive Officer.

C. This Regional Board's laboratory report forms shall be used in order to maintain an adequate quality assurance and quality control for all laboratory analytical work performed for this project.

D. The dischargers shall maintain all sampling and analytical results, including date, exact location, and time of sampling, date analysis were performed, name of analyst, analytical techniques used, and results of all analyses. Such result shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

III. SPECIFIC REPORTING REQUIREMENTS

A. All technical reports prepared for submittal to the Regional Board shall be signed by either a California registered civil engineer, a registered geologist, or certified engineering geologist.

B. For every item where the requirements are not met the dischargers shall submit a statement of the actions undertaken or proposed, together with a timetable, to bring the discharge back into full compliance with the requirements at the earliest time.

C. In reporting the monitoring data, the dischargers shall arrange the data in tabular form so that the data, the constituents, and the concentrations are readily discernible.

The data shall be summarized to determine compliance with waste discharge requirements and, where applicable, shall include receiving ground water observations.

D. Monitoring reports submitted to the Regional Board shall be signed by:

1. In the case of corporation, principal executive officer at least the level of Vice President or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;

2. In case of partnership, a general partner;

3. In case of sole proprietorship, the proprietor;

4. In the case of a municipal, state or public facility, either a principal executive officer, ranking elected official, or other duly authorized employee.

Each report shall contain the following completed declaration:

" I declare under penalty of perjury that the foregoing is true and correct.

Executed on the day of_____ at ___

_____ (Signature)

_____ (Title)"

Ordered by Robert P. Ghirelli
ROBERT P. GHIRELLI, D.Env.
Executive Officer

Date: April 4, 1994