

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 87-168

UPDATE OF WASTE DISCHARGE REQUIREMENTS ORDER NO. 82-54 FOR:

USS-POSCO INDUSTRIES
PITTSBURG FACILITY
PITTSBURG, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. The Board adopted Waste Discharge Requirements, Order No. 82-54, on September 15, 1982. Order No. 82-54 regulates the on-site discharge of wastes at USS-Posco Industries, previously named United States Steel Corporation, Pittsburg Facility (hereinafter called the discharger). The discharger owns and operates five surface impoundments at the discharger's facility (Units 1 through 5 in the LB disposal site) that are subject to Section 25208 (the Toxic Pits Cleanup Act of 1984) of the California Health and Safety Code (HSC).
2. The discharger filed an application for exemption from Sections 25208.4(a) and 25208.5(a) of the HSC for surface impoundment Nos. 1 through 5 at waste management unit area LB pursuant to Sections 25208.4(b) and 25208.5(c).
3. A Revised Hydrogeologic Assessment Report (HAR), dated October, 1987, was submitted in response to the Board's staff comments on the initial HAR, submitted in December 1985. The Revised HAR is complete as specified in Section 25208.4(b) of the HSC.
4. Section 25208.4 (a) of the HSC requires that on or after June 30, 1988, no person shall discharge liquid hazardous wastes or hazardous wastes containing free liquids into a surface impoundment if the surface impoundment, or the land underneath it, contains hazardous wastes and is within one-half mile upgradient of a potential source of drinking water. Pursuant to Section 25208.2(f) "discharge" includes storage of liquid hazardous wastes or hazardous waste containing free liquids. Section 25208.4 (b) allows the discharger to apply to the Board for an exemption from subsection 25208.4(a). To be granted the exemption, the discharger must:
 - a. Demonstrate that extremely hazardous wastes are not currently being discharged into the surface impoundment, and either,
 - 1) the records of the discharger indicate that no extremely hazardous wastes have been discharged into the impoundment, or
 - 2) that extremely hazardous wastes are not present in the surface impoundment, vadose zone or ground water; and

- b. The surface impoundment is in compliance with construction standards and the discharger has submitted a HAR.
5. Section 25208.5 (a) of the HSC requires that on or after January 1, 1989, no person shall discharge liquid hazardous wastes or hazardous wastes containing free liquids into a surface impoundment unless the surface impoundment is double lined, equipped with a leachate collection system, and groundwater monitoring is conducted. Section 25208.5 (c) allows the discharger to apply to the Board for an exemption from this subsection. To be granted the exemption, the discharger must demonstrate that:
 - a. No hazardous waste constituents have migrated from the surface impoundment into the vadose zone or into the waters of the State and
 - b. Continuing operation of the surface impoundments, without the double liner requirements, does not pose a significant potential for hazardous waste constituents migrating into the vadose zone or the waters of the State.
6. Based on the data presented in the Revised HAR, extremely hazardous wastes are not currently nor have ever been discharged into the surface impoundments. Data from sampling of the vadose zone and ground water indicate that no extremely hazardous wastes are present in the surface impoundment, in the vadose zone, or in the waters of the State (Section 25208.4(b)).
7. Review of data presented in the HAR indicate that hazardous waste constituents have not migrated from the surface impoundments into the waters of the State in concentrations which pollute the waters of the State.
8. Data presented in the Revised HAR do clearly indicate that lateral migration of waste constituents has occurred from impoundment Nos. 1 and 2 into the vadose zone. Subsurface soil samples taken around the perimeter of the impoundment dikes, at approximately the elevation of the impoundment/dike bottoms, show elevated levels of zinc east of impoundment Nos. 1 and 2, and slightly elevated levels of chromium. The lateral extent of waste migration is not known.
9. Section 25208.1 (a) of the HSC states that "discharges of liquid hazardous waste containing free liquids into lined or unlined ponds, pits, and lagoons pose a serious threat to the quality of the waters of the State."
10. The geology at the site is less than optimum for containment of hazardous waste. Laterally continuous ground water bearing sand zones lie beneath the facility at depths as shallow as about 4-feet or possibly less. There is uncertainty of the separation between the impoundment bottoms and ground water due to the variable depths of the impoundments and the variable nature of the ground water levels at the site. The area of the impoundments is within a ground water discharge zone and is within 2,000 feet of New York Slough, a potential drinking

water source. This finding supersedes finding 5. of Order 82-54 with regards to the LB area waste management unit as based on data presented in the Revised HAR.

11. The five impoundments subject to TPCA are not equipped with an engineered liner. The impoundments were constructed by excavation into native materials and the dikes were constructed around the excavations using excavated materials.
12. An unlined overflow collection ditch exists along the west and north perimeters of the LB area surface impoundments. This ditch serves to return liquid overflow from the LB area surface impoundments to the waste water treatment plant. Seepage from the containment dike along the northwest corner of surface impoundment No. 1 to this unlined ditch was observed during an inspection by the Board's staff in October, 1986.
13. Based on findings 5, 8, 9, 10, 11, and 12 above, the Board denies the discharger's application for exemption from Section 25208.5 of the HSC for impoundment Nos. 1 and 2. Therefore, the discharger must 1) have all free liquids removed from the surface impoundments Nos. 1 and 2 by January 1, 1989 or 2) comply with the double liner construction requirements of Section 25208.5 by January 1, 1989.
14. Based on Findings 5, 9, 10, 11, and 12, the Board defers consideration of the discharger's application for exemption from Section 25208.5 of the HSC for surface impoundment Nos. 3, 4, and 5.
15. The surface impoundments located within waste management unit area LB have been in operation for about 16 years. Based on available data, concentrations of waste constituents in groundwater are within naturally occurring and upgradient levels, which indicates that there are no existing impacts to groundwater from operation of these impoundments.
16. The sludge contained within the waste management unit area LB surface impoundments Nos. 1 through 5 is initially generated by precipitation of metals out of solution from the plant waste water. Although the conditions at the impoundments are different, due to a lower pH, the dissolution of metals is not expected to be of significance.
17. Based on findings 4, 6, 7, 15, and 16 above, the Board grants an exemption to Section 25208.4 of the HSC provided that the discharger meets the double liner requirements for all five surface impoundments as required in Section 25208.4 (b).
18. The action to revise waste discharge requirements for continued operation of existing waste management units is exempt from the California Environmental Quality Act (Public Resources Section 2100 et. seq.) in accordance with Section 15301 of the California Administrative Code.
19. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for

the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

20. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that USS-Posco Industries comply with the updated requirements as itemized below:

Order No. 82-54 is hereby updated to include the prohibitions and specifications of this order.

A. Waste Discharge Prohibitions: Add the following to A. Prohibitions of Order No. 82-54:

- "5. The discharge of any waste from the surface impoundments to ground waters of the State or to the unsaturated zone surrounding the surface impoundments is prohibited.
6. The discharge or storage of liquid extremely hazardous waste or extremely hazardous waste containing free liquids into the surface impoundments or associated facilities is prohibited.
7. The discharge or storage of any waste to the existing unlined surface impoundments or associated facilities (unlined ditches) within waste management area LB is prohibited after December 31, 1988."

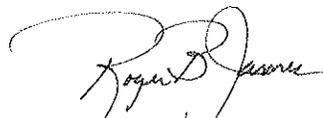
B. Waste Disposal Specifications: Add the following to Specification B. of Order No. 82-54:

- "9. All liquid hazardous wastes or hazardous wastes containing free liquids must be removed from the waste management unit LB surface impoundments or associated facilities (unlined ditches) by January 1, 1989 unless the double liner requirement of Section 25208.5 of the HSC is satisfied and approved by the Board."

C. Provisions: Add the following to C. of Order No. 82-54

- "15. The discharger shall submit a proposed plan and schedule that, at a minimum, includes the drilling of three exploratory borings and three monitoring wells along the dike separating impoundment Nos. 2 and 3; the exploratory borings may be completed as monitoring wells. Continuous soil samples will be obtained from each boring. Chemical and moisture analyses will be performed on samples from 5 feet depth increments; the remaining samples will be retained for possible future analyses. The required work shall be completed and a Report of Investigations shall be presented upon approval of the Plan and Schedule by the Executive Officer.
PROPOSAL DUE: January 15, 1988
REPORT DUE: April 1, 1988"

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by California Regional Water Quality Control Board, San Francisco Bay Region on December 16, 1987.

A handwritten signature in cursive script, appearing to read "Roger B. James".

Roger B. James
Executive Officer