

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

MEETING OF APRIL 11 AND 12, 2001

Lancaster

ITEM: 15

SUBJECT: **AMENDED WASTE DISCHARGE REQUIREMENTS - IMC CHEMICALS, INC. AND THE U.S. DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT, SEARLES DRY LAKE OPERATIONS – WESTEND PLANT, SAN BERNARDINO COUNTY**

CHRONOLOGY: March 8, 1984 Waste Discharge Requirements adopted - Board Order No. 6-84-28 issued to Kerr-McGee Chemical Corporation

August 8, 1991 Revised Waste Discharge Requirements adopted - Board Order No. 6-91-908, North American Chemical Company

June 14, 2000 Revised Waste Discharge Requirements adopted - Board Order No. 6-00-54, IMC Chemicals, Inc.

ISSUE: Should the Regional Board amend the Waste Discharge Requirements (WDRs) extending the compliance date for meeting the final effluent limits and setting more restrictive interim effluent limits?

DISCUSSION: IMC Chemicals, Inc. (Discharger) withdraws a highly mineralized brine from the ground waters of Searles Dry Lake. Minerals are extracted from the brine by methods involving washing, dissolution, crystallization, filtration, drying, and precipitation. Sodium sulphate, and anhydrous borax are produced at the Westend plant. After mineral extraction the brine is returned to Searles Dry Lake for recharge. The total amount of brine discharged to the dry lakebed from the Westend Facility is approximately 7.5 million gallons per day.

Searles Lake is a hydraulically “closed” basin meaning there is no natural outlet for surface or ground water. Surface water was historically ephemeral, but is now present year round due to plant effluent discharges. Petroleum hydrocarbons are being released into Searles Lake and have caused accumulation of organic compounds and oil in and on waters on the Lake surface and in Lake sediments.

The existing WDRs include a time schedule to reach final effluent limits of non-detectable concentrations of kerosene hydrocarbons, non-kerosene petroleum hydrocarbons, formaldehyde and total phenol in the discharge. The final effluent limits are effective July 1, 2001.

IMCC requested an extension to the July 1, 2001 final effluent compliance date, in order to further develop technologies to minimize organic contaminants in the

brine discharge. IMCC has implemented best management practices (BMPs) for in-plant discharges and controls to minimize bird contact with the effluent ponds. Additional time is needed to evaluate potential process changes and further refine analytical methods for the brine discharge.

The proposed Order amends the existing WDRs and reduces the interim effluent limits. The proposed maximum concentration of total petroleum hydrocarbon (TPH) as kerosene is 1.0 mg/l and the maximum limit for total recoverable petroleum hydrocarbons (TRPH) is 2.9 mg/l. Additionally, the proposed Order includes new interim effluent limit for total phenols of 1.0 mg/l. These limits reflect effluent concentrations reasonably achievable by technologies that can be put in place now.

Further reductions in contaminant concentrations may be able to be achieved. The proposed Order establishes a schedule to submit reports of further laboratory analytical methods research and report of best management practices implementation. The proposed Order requires compliance with current final effluent limits by **January 30, 2002**.

The existing WDRs describe that the Discharger may submit to the Regional Board information to complete an analysis according to State Water Resources Control Board Resolution 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and the non-degradation objective contained in the Water Quality Control Plan for the Lahontan Region. If justified based on the above analysis, the Regional Board may consider changes to the final effluent limits in the proposed Order.

RECOMMENDATION: Adoption of the Order as proposed.

Enclosure: Proposed Board Order and Amended Monitoring and Reporting Program