

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

Searles
Lake
RL

AMENDED CLEANUP AND ABATEMENT ORDER NO. 6-00-64A1
WDID NOs.: 6B368020001, 6B368905004, and 6B368905005

REQUIRING IMC CHEMICALS AND
THE U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT
TO CLEAN UP AND ABATE THE EFFECTS OF WASTE DISCHARGES
TO SEARLES LAKE FROM THE
TRONA, ARGUS, AND WESTEND FACILITIES

San Bernardino County

The California Regional Water Quality Control Board, Lahontan Region (Regional Board) finds:

1. Discharger

IMC Chemicals Inc. (IMCC) owns and operates the Trona, Argus, and the Westend Plants. IMCC owns the land on which the three plants are located and portions of Searles Lake where the discharge occurs. The U.S. Department of the Interior, Bureau of Land Management (BLM) owns the remainder of Searles Lake where the discharge occurs. For the purposes of this Regional Board Order (Order), IMCC and the BLM are referred to collectively as the "Discharger."

2. Facility

The Trona, Argus, and Westend Plants in Searles Valley are located adjacent to Searles (Dry) Lake. Searles Lake covers approximately 70 square miles and contains historical and active dredging and mining operations. These operations include features such as solar ponds, percolation ponds, dredge ponds, salt mining facilities, new and old oil skimmer devices, brine conveyance channels, inactive and active equipment yards, unregulated waste debris areas and other industrial facilities. Partially depleted brines from plant processes are discharged to the surface and subsurface of Searles Lake, which are waters of the State.

3. Regional Board Orders

Discharge of wastes from the Argus, Trona, and Westend Plants are regulated by Waste Discharge Requirements (WDRs) adopted by the Regional Board. The Board also adopted Cease and Desist Order No. 6-00-61 for violations and threatened violations of WDRs. On July 7, 2000, Cleanup and Abatement Order (CAO) No. 6-00-64 was adopted to cleanup and abate the effects of waste discharges to Searles Lake.

CAO No. 6-00-64 requires submittal of: 1) a technical report describing methods implemented to reduce waterfowl deaths, 2) a work plan to identify and cleanup the areal extent of contaminants in Searles Lake surface waters and sediments, and 3) weekly status reports containing data of daily sampling and inspections. The CAO also requires actions to clean up oil from Searles Lake.

IMCC has submitted the requested reports and work plans; however due to negotiations regarding the type of site characterization necessary for cleanup of Searles Lake and the complexity of the site, further site characterization is needed prior to implementation of site cleanup. Regional Board staff has reviewed the analytical research conducted by IMCC regarding achievable detection limits of constituents in the brine matrix and has requested further research regarding the best laboratory analytical method to achieve the lowest detection limits for the brine matrix.

CAO No. 6-00-64 requires IMCC to eliminate all visible petroleum hydrocarbons from surface waters of Searles Lake and remove, or remediate to non-detectable levels, all visible petroleum hydrocarbon contaminated surface soils and sediments by January 30, 2001. IMCC has requested that the date for compliance with this requirement be extended. The reasons for the extension request are that not all sources of contaminants have been determined. Also, while many areas of hydrocarbon contaminated surface soils have been identified and cleaned up, the full extent of contaminants in sediments and surface soils has not been delineated. Additional testing and characterization of contaminated surface soils and sediments is necessary to effectively remediate sources of contaminants to Searles Lake.

4. Reason for Action

The CAO is being amended to allow the Discharger additional time to further characterize and cleanup contaminated surface soils and sediments and implement best available treatment technologies and/or process changes to eliminate ongoing sources of contaminants to Searles Lake. The CAO amendment requires elimination and remediation of visible petroleum hydrocarbons from surface waters.

IMCC has implemented control measures and best management practices to reduce bird contact with the partially depleted brine discharge, and reduce contaminant concentrations in its effluent discharge. IMCC has also identified and conducted interim cleanup of several contaminated soil sites. IMCC has evaluated the effect of the brine matrix on detection levels using traditional laboratory analytical methods for detecting the lowest concentration of constituents in the brine matrix.

The results of the laboratory methods study indicate that site specific laboratory methods may provide more representative analysis of the brine matrix. IMCC needs to conduct further research to further develop and test site specific laboratory methods. Because initial tests were not conclusive, IMCC also needs to conduct further tests of the potential contribution of contaminants identified in soils and sediments to Searles Lake. Therefore, all the sources of contaminant loading to the lake have not been identified, not all areas have been fully characterized and cleaned up, and additional research is needed to develop site-specific methods for laboratory analyses.

The CAO amendment requires interim cleanup to continue and establishes a schedule to complete the steps described above.

5. California Environmental Quality Act

This enforcement action is being taken by this regulatory agency to enforce provisions of the California Water Code and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Cod, Section 21000 et seq.) in accordance with Section 15321, Chapter 3, Title 14, California Code of Regulations.

IT IS HEREBY ORDERED that pursuant to Sections 13304 and 13267 of the California Water Code, the Discharger shall comply with the following:

1. Comply immediately with the following interim numeral effluent limits (described in Table 1 below) in Board Order Nos. 6-00-52A1, 6-00-53A1, and 6-00-54A1.

Table 1

Parameter	Effluent Limits Argus ¹	Effluent Limits Trona ²	Effluent Limits Westend ³
Total Petroleum Hydrocarbons (TPH) as Kerosene	1.0 mg/l	6.1 mg/l	1.0 mg/l
Total Recoverable Petroleum Hydrocarbons (TRPH)	4.5 mg/l	8.6 mg/l	2.9 mg/l
Phenols	1.0 mg/l	1.0 mg/l	1.0 mg/l

¹ Board Order No. 6-00-52A1 Discharge Specification I.B.

² Board Order No. 6-00-53A1 Discharge Specification I.B.

³ Board Order No. 6-00-54A1 Discharge Specification I.B.

2. Visible petroleum hydrocarbons shall be immediately (within the same day) removed from surface waters of Searles Lake. Inspections of surface waters of Searles Lake shall be conducted twice daily.
3. Forthwith continue interim cleanup of identified contaminated surface soils. All sites cleaned up shall be clearly delineated on a map of suitable scale, and cleanup activities including any sampling shall be documented. The map, summary of sampling data, and description of the area cleaned up shall be provided with the bi-weekly reports.
4. Beginning **May 15, 2001**, submit **Twice-monthly Cleanup Progress Reports** (due by the 1st and 15th of each month). These reports shall include, but not be limited to, the following:
 - a. Volume of oil cleaned up from surface water,
 - b. Quantity of contaminated soil and/or sediment removed and/or treated,
 - c. Daily evaluation of surface water sheen, with map indicating where observed,

- d. Documentation of the presence of dead or affected wildlife (by date and map location),
 - e. Quantity and location of material disposed offsite (include manifests) or treated and disposed onsite (material disposed onsite must include sampling data),
 - f. Daily log of person-hours, location of cleanup effort, distribution of equipment and cleanup methods used,
 - g. Maps, sample locations and analytical results and photos of cleanup activities,
 - h. Progress of the cleanup and a statement regarding the status of compliance with this Order, and
 - i. Problems encountered and proposed solutions.
5. By **May 25, 2001**, submit a report summarizing the interim surface soils cleanup activities completed prior to May 1, 2001. The report shall include a site map(s), description of each site, source of contaminants, volume and nature of material removed or remediated, and cleanup verification sampling results.
6. By **May 25, 2001**, submit a Site Characterization Work Plan for addressing areas of contamination identified and numbered in the January 31, 2001 IMCC report "*Documentation of Known Prior Spill Sites of Searles Dry Lake*", and characterizing potential sources of contaminants on the lakebed. The Site Characterization Work Plan shall include, but not be limited to, the following.
- a. Recommended prioritization of previously identified sites,
 - b. Additional activities proposed, such as verification sampling, at interim cleanup sites,
 - c. Identifying all potential source(s) of contaminants; including, but not limited to, equipment, formerly used facilities, waste disposal areas, contaminated soils and/or sediments, and any other potential source of contaminants to Searles Lake,
 - d. Sampling of sites to characterize the nature and lateral and vertical extent of contamination,
 - e. A Sampling and Analysis Plan, including proposed sampling locations, sampling handling and analytical procedures, data quality objectives and data management procedures,
 - f. Methods to determine any continuing sources of contaminants such as potential leachability of contaminants at each site, and
 - g. Discussion of potential threat to water quality from contaminant sources.
7. **September 30, 2001**, submit a Site Characterization Report describing the results of the field investigation. The report shall include maps of appropriate scale, the information required in Item 6, above, summarized data results as well as raw data sheets, and any other pertinent information.
8. By **November 30, 2001**, submit a Site Cleanup Work Plan. This Work Plan shall include, but not limited to, the following.

- a. Summary of information on sites that have been cleaned up since May 1, 2001, and the current status of all sites,
 - b. Methods proposed for contaminant recovery and disposal,
 - c. Evaluation and description of proposed cleanup alternatives,
 - d. Proposed contaminant cleanup concentrations (cleanup levels) for both soils and surface and ground waters,
 - e. Recommended remedial action alternative(s),
 - f. Estimated cleanup time to restore the lake to cleanup levels, and
 - g. Verification monitoring plan.
9. By **January 30, 2002**, upon approval of the Cleanup Work Plan, implement the Cleanup Work Plan.

Cleanup actions shall conform to the provisions of State Water resources Control Board Resolution Nos. 68-16, and 92-49. Justifications for any proposed cleanup level(s) that are greater than background levels must be included in the Work Plan.

All findings and orders of Cleanup and Abatement Order No. 6-00-64 not amended by this Order remain in force.

Failure to comply with the terms and conditions of this Cleanup and Abatement Order may result in further enforcement action including but not limited to assessment of civil liability pursuant to the California Water Code or referral to the Attorney General of the State of California for such legal action, as he or she deems appropriate.

Ordered by: _____
HAROLD J. SINGER
EXECUTIVE OFFICER

Dated: May 8, 2001