

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

**MEETING OF JUNE 19 and 20, 2013  
Lee Vining, California**

**ITEM:** 11

**SUBJECT: RESCISSION OF WASTE DISCHARGE REQUIREMENTS  
BOARD ORDER NO. 6-82-131 FOR COLUMBIAN CHEMICALS  
COMPANY, MOJAVE PLANT NO. 55, KERN COUNTY**

**CHRONOLOGY:** April 14, 1977 Waste Discharge Requirements  
(Board Order No. 6-77-29)

December 15, 1982 Revised Waste Discharge Requirements  
(Board Order No. 6-82-131)

**ISSUE:** Should the Regional Board rescind Waste Discharge Requirements issued to Columbian Chemicals, now a former subsidiary of Freeport-McMoRan Corporation, for the Mojave Plant No. 55 (Facility)? Rescission is appropriate because the approved closure plans have been fully implemented and the evaporation ponds have been closed. The Facility no longer presents a threat to water quality.

**DISCUSSION:** The Facility operated as a carbon black manufacturing facility from 1969 to 1989. The waste management units consisted of three clay lined surface impoundments (evaporation ponds), which were the designated disposal sites for industrial wastewater. The industrial wastewater included boiler blowdown, wash water from the carbon black manufacturing unit, and onsite stormwater.

The Discharger ceased operation of the Facility in May 1989 and has implemented the Site Closure Plan (May 1997; revised July 2002). All salvageable equipment and remaining products were removed from the Site, the remaining manufacturing facilities were demolished, and the three evaporation ponds were closed in place by infilling with clean soil. In May 2005, the former pond area was capped with soil and graded to prevent ponding or stormwater run-on. At the time of closure, the evaporation ponds contained up to 3.5 feet of dry sludge consisting of carbon black material in the deeper portions of the ponds. Depth to groundwater beneath the Facility is in excess of 180 feet below ground surface.

Due to a lack of groundwater monitoring data, a Vadose Zone Soil Investigation was subsequently performed in October 2012 to evaluate the potential threat to groundwater quality resulting from the buried waste. The analytical data obtained from that investigation indicate that there has been no downward migration of constituents of concern in the soil beneath the clay liners and supports the conclusion that the waste buried in the former evaporation ponds is contained and does not pose a threat to groundwater quality. To ensure that the cap over the former pond area remains protected in perpetuity and to preclude the potential for excavation and exposure of the buried waste to stormwater, the Owner will implement a land use restriction to prevent future redevelopment.

Based on site conditions and depth to groundwater, the Water Board finds that the wastes remaining in the former pond area do not pose a threat to water quality and it is appropriate to rescind Board Order No. 6-82-131 for the Mojave Plant No. 55 facility.

Regional Board staff has solicited comments from the Discharger and Owner and other interested parties. All comments received have been addressed.

**RECOMMENDATION:** Adoption of Order as proposed.

<b>ENCLOSURE</b>	<b>ITEM</b>	<b>BATE NUMBER</b>
1.	Proposed Board Order No. R6V-2013-proposed	11-04
2.	Comments from Arcadis by EMail dated 4/3/13	11-09

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# **ENCLOSURE 1**

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

**BOARD ORDER NO. R6V-2013-(PROPOSED)  
WDID 6B152087001**

**RESCISSION OF WASTE DISCHARGE REQUIREMENTS  
BOARD ORDER NO. 6-82-131  
FOR**

**COLUMBIAN CHEMICALS COMPANY  
MOJAVE PLANT NO. 55**

Kern County

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

1. Discharger

Columbian Chemicals Company, now a former subsidiary of Freeport-McMoRan Corporation, operated a carbon black manufacturing facility near Mojave in Kern County (Mojave Plant No. 55). For the purposes of this Water Board Order (Order), Columbian Chemicals Company is referred to as the “Discharger” and Mojave Plant No. 55 is referred to as the “Facility.” In March 2006, the Discharger transferred ownership of the Facility to MSS Properties LLC, herein referred to as the “Owner.”

2. Facility Location

The Facility is located at 12701 United Street, approximately 3 miles south of Mojave in part of Section 33, Township 11 North, Range 12 West, San Bernardino Baseline and Principal Meridian. The Facility is located within the Chaffe Hydrologic Area of the Antelope Hydrologic Unit and overlies a portion of the Antelope Valley Groundwater Basin.

3. Facility

The Facility operated as a carbon black manufacturing facility from 1969 to 1989. The waste management units consisted of three clay lined surface impoundments (evaporation ponds), which were the designated disposal sites for industrial wastewater. The industrial wastewater included boiler blowdown, wash water from the carbon black manufacturing unit, and onsite stormwater. The wastewater contained total filterable residue and chloride at concentrations in the range of 4,000 milligrams per liter (mg/L) and 2,000 mg/L, respectively, as well as detectable concentrations of polyaromatic hydrocarbons (PAHs) and volatile and semi-volatile organic compounds (VOC and SVOC).

The three evaporation ponds were lined with a minimum of 18-inches of clay compacted to a permeability of  $1 \times 10^{-6}$  centimeters per second. The wastewater was conveyed to the ponds via concrete lined diversion channels. Each pond was equipped with a leakage detection system, which consisted of a network of perforated pipe underdrains and associated upgradient and downgradient leakage detection wells.

Groundwater monitoring was not a requirement of Board Order No. 6-82-131. Depth to groundwater has been in excess of 180 feet below ground surface for the life of the Facility. In lieu of groundwater monitoring, the Discharger monitored the vadose zone by periodic inspection of the leakage detection wells.

#### 4. Waste Discharge Requirements

On April 14, 1977, the Water Board adopted Waste Discharge Requirements (WDRs) for the Facility under Board Order No. 6-77-29 to allow for the disposal of industrial wastewater to two surface impoundments onsite. On December 15, 1982, the Water Board adopted Board Order No. 6-82-131 that revised the WDRs to authorize the construction of a third surface impoundment, to reflect a change in ownership of the Facility, and to rescind the previous Board Order No. 6-77-29.

#### 5. Reasons for Action

The Discharger ceased operation of the Facility in May 1989. Since that time, the Discharger has implemented the Site Closure Plan (May 1997) and the Revised Site Closure Workplan (July 2002), both of which were reviewed and accepted by Water Board staff. All salvageable equipment and remaining products were removed from the Site and transported for reuse at other facilities or sold. The remaining manufacturing facilities were demolished and the three evaporation ponds were closed in place by infilling with clean soil. In May 2005, the former pond area was capped and graded to prevent ponding or stormwater run-on. The capped area was subsequently hydroseeded and stabilized with native vegetation to prevent erosion. At the time of closure, the evaporation ponds contained up to 3.5 feet of dry sludge consisting of carbon black material in the deeper portions of the ponds.

On November 30, 2005, the Discharger submitted a Closure Report and Supplemental Site Assessment that documented closure activities at the Site. Analytical data contained in that report indicated that the dry sludge buried within the former evaporation ponds contained detectable concentrations of PAHs. Specifically, benzo(a)anthracene and chrysene were detected at soluble concentrations of 0.52 micrograms per liter (ug/L) and 0.22 ug/L, respectively, in soils collected just above the clay liner from the middle evaporation pond. Due to a lack of groundwater monitoring data, a soil investigation was subsequently performed in October 2012 to evaluate the potential threat to groundwater quality resulting from the buried waste. The results of that investigation were detailed in a Vadose Zone Soil Investigation Report dated December 17, 2012. The analytical data from that report show that there is no evidence of downward migration of PAH in the soil beneath the clay liners, and

supports the conclusion that the waste buried in the former evaporation ponds is contained and does not pose a threat to groundwater quality.

PAHs may pose a threat to water quality if exposed to stormwater or surface water. The vegetated soil cap combined with positive grading to prevent ponding or stormwater run-on is an effective control in preventing erosion and subsequent exposure of the buried waste to stormwater. Therefore, maintaining the integrity of the soil cap is necessary to ensure that the remaining waste will not pose a threat to the quality of surface waters. To ensure that the cap over the former pond area remains protected in perpetuity and to preclude the potential for excavation and exposure of the buried waste to stormwater, the Owner will implement a land use restriction to prevent future redevelopment of the former evaporation ponds.

Based on site conditions, depth to groundwater, and the imposed land use restriction, the Water Board finds that the wastes remaining in the former pond area do not pose a threat to water quality and it is appropriate to rescind Board Order No. 6-82-131 for the Mojave Plant No. 55 facility.

6. California Environmental Quality Act (CEQA)

This action is being taken by the Water Board to rescind WDRs issued pursuant to the California Water Code, and as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with the California Code of Regulations (CCR), title 14, section 15321, subsection (a)(2).

7. Right to Petition

Any person aggrieved by this action of the Water Board may petition the State Water Board to review the action in accordance with California Water Code, section 13320, and CCR, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the internet at [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality), or will be provided upon request.

8. Public Notification

The Water Board has notified the Discharger and Owner and other interested agencies and persons of its intent to rescind WDRs for the Facility. The Water Board, in a public meeting, heard and considered all comments pertaining to the rescission of these WDRs.

**IT IS HEREBY ORDERED** that Board Order No. 6-82-131, be rescinded.

I, Patty Z. Kouyoumdjian, 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, Lahontan Region, on June 19, 2013.

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PATTY Z. KOUYOUMDJIAN  
EXECUTIVE OFFICER

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PROPOSED

# **ENCLOSURE 2**

**Zimmerman, Jan@Waterboards**

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**From:** Cole, Connie <Connie.Cole@arcadis-us.com>  
**Sent:** Wednesday, April 03, 2013 9:20 AM  
**To:** Zimmerman, Jan@Waterboards  
**Cc:** Joe Brunner (Joseph\_Brunner@fmi.com)  
**Subject:** Rescission of Waste Discharge Requirements Board Order No. 6-82-131 Mojave Plant No. 55

Jan, thank you for confirming that comments on the draft rescission order can be submitted to the Water Board via email. On behalf of Freeport-McMoRan Copper & Gold, Inc., ARCADIS respectfully submits the following revisions to the draft for your consideration:

- In Section 1, the description is incorrect and should read that Columbian Chemicals is now a former subsidiary of Freeport-McMoRan Corporation (not FCX).
- In Section 2, please add the following sentence at the end of paragraph: In March 2006, the Discharger transferred the Facility to MSS Properties LLC, the "Owner."
- In Section 3, please add "and the Owner" after Discharger in the last sentence.
- In Section 5, please add "and the Owner" after Discharger in the second sentence. Thereafter in Section 5, Discharger should be replaced with Owner.
- In Section 8, Discharger should be replaced with Owner.

Thank you for considering these changes to the draft.

I will look forward to responding to your comments on the maps submitted as Exhibits with the Deed and appreciate the information that you will notify us if Board members have questions on the proposed rescission.

Best wishes,  
Connie

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