



Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, CA 90630

ADDENDUM TO SUMMARY OF VIOLATIONS

On June 23 and 24, 2015 , the Department of Toxic Substances Control (Department), California Environmental Protection Agency, conducted an inspection at:

Facility Name:	<u>Quemetco Inc.</u>		
Facility Address:	<u>720 Seventh Avenue</u>		
	<u>City of Industry, California 91746</u>		
EPA ID Number:	<u>CAD 066 233 966</u>	County:	<u>Los Angeles</u>

As a result of this inspection, violations of hazardous waste laws, regulations, and requirements listed on the attached pages were discovered. All violations must be corrected; the actions you must take to correct the violations are listed with each violation. If you disagree with any of the violations or proposed corrective actions listed in this Summary of Violations, you should inform the Department. Additional violations may be found after the site visit, and these will be identified in the Violation section of the inspection report.

A Groundwater Monitoring Evaluation Report will be forwarded separately. You may request a meeting with the Department to discuss the inspection, inspection report, or the Summary of Violations. The issuance of this Summary of Violations does not preclude the Department from taking administrative, civil, or criminal action as a result of the violations noted in the Summary of Violations or violations that have not been corrected within the time provided. A false statement that compliance has been achieved is a violation of the law and punishable by a fine of not less than \$2,000 or more than \$25,000 for each occurrence. The Department may re-inspect this facility at any time.

Company Representative Accepting Summary

Department Representative

Name: _____
Signature: _____
Title: _____
Date: _____

Name: Greg Neal
Signature: *Greg Neal*
Title: Engineering Geologist
Date: June 1, 2016

ADDENDUM TO SUMMARY OF VIOLATIONS

Facility Name: Quemetco, Inc Date: June 23 and 24, 2015

SECTION I: NON - MINOR VIOLATIONS AND REQUIRED CORRECTIVE ACTION (Violations not considered Minor Violations)

You must correct the following violation(s) within the specified time frame for each violation.

Violations 1 through 4 were issued as a Summary of Violations, dated August 5, 2015, identified as a result of the field evaluation of groundwater sampling activities conducted on June 23 and 24, 2015.

VIOLATIONS IDENTIFIED FROM THE HYDROGEOLOGIC EVALUATION

The following violations were identified from the review of Facility documents regarding groundwater, surface water, pore water, and pore gas. Additional data were provided by Quemetco Inc. (Facility) during the hydrogeologic presentation on October 7, 2015.

All references to section numbers are to sections in California Code of Regulations (CCR), title 22. The numbering of violations does not preclude the Department from treating each citation separately.

Violation 5: Failure to Implement a Groundwater Detection Monitoring Program for the Former Raw Materials Storage Area

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.91(a)(1), 66264.97(a), 66264.97(b)(1)(A), 66264.97(b)(1)(B)(1), 66264.97(b)(1)(B)(2), 66264.97(e)(12)(A)(1), 66264.97(e)(12)(B), 66264.98(b), 66264.98(c), 66264.98(j)(1), 66264.98(k)(4)(A), 66264.98(k)(5), 66264.98(k)(6), 66264.98(m), and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015, the Facility failed to install a groundwater detection monitoring system that is in compliance with the provisions of sections cited above. Specifically, the Facility failed to:

- a. Install a groundwater monitoring system that is in compliance with the detection monitoring regulations and that complies with the HWFP and provisions of sections 66264.97 and 66264.98 for the Former Raw Materials Storage Area. This violation

pertains to the general establishment of an adequate groundwater detection monitoring program. [66264.91(a)(1), 66264.98(b) and HWFP, Part IV.D.2(i), p. 50]

- b. Comply with the requirements of the HWFP and 66264.97 for any water quality monitoring program developed to satisfy section 66264.98 for the Former Raw Materials Storage Area. This violation pertains to general monitoring and system requirements for a groundwater detection monitoring program. [66264.97(a) and HWFP, Part IV.D.2(i), p. 50]
- c. Include a groundwater monitoring system which includes a sufficient number of background monitoring points installed at appropriate locations and depths. Current groundwater wells recommended by the Facility for use as background wells (MW-9 and MW-10) are not adequate as they either exist in areas of known soil contamination, have well design issues, or may be affected by releases to soil and/or groundwater from the Former Raw Materials Storage Area. No adequate background wells were installed for the Former Raw Materials Storage Area for the formerly saturated zone (Shallow Water Bearing Zone [WBZ]) or the current uppermost aquifer (Lower WBZ). [66264.97(b)(1)(A); HWFP, Part IV.D.2(i), p. 50; HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.2(c)(7); p. 47 and HWFP, Part IV.D.2(b)(4), p. 45, HWFP Part IV D.2(g)(3), p. 49]
- d. Install a sufficient number of monitoring points at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance. The Former Raw Materials Storage Area has an insufficient number of wells to determine water quality passing the point of compliance. Only one groundwater well, MW-19, is near the point of compliance location along the downgradient edge of the unit. MW-19 is actually located within the unit's excavated backfill area and not along the point of compliance of the Former Raw Materials Storage Area. [66264.97(b)(1)(B)(1); HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.2(g)(1), p. 49 and HWFP, Part IV.D.2(g)(3), p. 49]
- e. Install a sufficient number of monitoring points at additional locations and depths to yield groundwater samples from the uppermost aquifer as necessary. The Former Raw Materials Storage Area has only one groundwater well, MW-19, for monitoring releases from this regulated unit. Wells MW-14 and MW-15 were screened in the Lower WBZ; however, these two wells were decommissioned in December 1994 with no replacement wells. Upgradient well MW-20 was screened in the Lower WBZ, but went dry in 2013 and was not replaced. Other existing wells are not located in areas of interest such as north-northwest and southwest of the Former Raw Materials Storage Area to determine water quality in the Lower WBZ. [66264.97(b)(1)(B)(2); HWFP, Part IV.D.2(c), p. 45 and HWFP, Part IV.D.2(b)(3), p. 44]

- f. Propose sampling methods for each constituent of concern and monitoring parameter listed in the Facility permit, methods to be used to establish background values and the sampling methods to be used for monitoring pursuant to this article. The number and kinds of samples collected shall be appropriate for the form of statistical test employed to detect a release from the Former Raw Materials Storage Area. The Facility was to use the maximum contaminant level as an interim criterion in 2007 to establish a release from the Former Raw Materials Storage Area until statistically valid background concentrations were established. Currently, the Facility still does not have any background wells for the Former Raw Materials Storage Area and the Facility's Sampling and Analysis Plan does not include sampling protocols for statistical analysis for each constituent of concern and monitoring parameter listed in the Facility permit. The Facility should have developed a methodology to collect background water quality samples and compare the background data to the downgradient point of compliance data from the Former Raw Materials Storage Area. [66264.97(e)(12)(A)(1); HWFP, Part IV.D.2(b)(2), p. 44; HWFP, Part IV.D.2(b)(3), p. 44; HWFP, Part IV.D.2(b)(4), p. 45; HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.2(c)(2), p. 45; HWFP, Part IV.D.2(c)(4), p. 45; HWFP, Part IV.D.2(c)(6), p. 47; HWFP, Part IV.D.2(c)(7), p. 47; HWFP, Part IV.D.2(i)(3), p. 50 and HWFP, Part IV.D.2(i)(4), p. 50]
- g. Perform statistical analysis at least quarterly. The Facility was to use the maximum contaminant level as an interim criterion to establish a release from the Former Raw Materials Storage Area until statistically valid background concentrations were established. The Facility did statistics on select water quality data infrequently and has not calculated an adequate statistical background value for any of the site constituents of concern. The Facility's Sampling and Analysis Plan does not include sampling for statistical analysis and still relies on the maximum contaminant level as a release trigger level instead of actual background groundwater quality data (See Violation 5c for additional information on designation of background wells). [66264.97(e)(12)(B); HWFP, Part IV.D.2(c)(2), p. 45; HWFP, Part IV.D.2(c)(4), p. 45; HWFP, Part IV.D.2(c)(6), p. 47; HWFP, Part IV.D.2(c)(7), p. 47; HWFP, Part IV.D.2(i), p. 50; HWFP, Part IV.D.2(i)(2), p. 50; HWFP, Part IV.D.2(i)(3), p. 50; HWFP, Part IV.D.2(i)(4), p. 50; HWFP, Part IV.D.2(i)(5), p. 50 and HWFP, Part IV.D.2(j), p. 51]
- h. Establish a background value for each monitoring parameter and for each constituent of concern. The Facility was to use the maximum contaminant level as an interim criterion to establish a release from the Former Raw Materials Storage Area until statistically valid background concentrations were established. The Facility did statistics on select water quality infrequently and has not calculated an adequate statistical background value for any of the site constituents of concern and still relies on the maximum contaminant level as a release trigger level instead of actual background groundwater quality data (See Violation 5c for additional

information on designation of background wells). [66264.98(c); HWFP, Part IV.D.2(b)(2), p. 44; HWFP, Part IV.D.2(b)(4), p. 45; HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.3(b)(2), p. 55; HWFP, Part IV.D.4(b)(1), p. 56; HWFP, Part IV.D.5(a)(1), p. 56; HWFP, Part IV.D.5(b)(6), p. 57 and HWFP, Part IV.D.5(b)(7), p. 57]

- i. Notify the Department of statistically significant evidence of a release finding, by certified mail, within seven days of such determination. The notification shall identify for each affected monitoring point the monitoring parameters and constituents of concern that have indicated statistically significant evidence of a release from the Former Raw Materials Storage Area. The Facility has exceeded the maximum contaminant level (interim trigger level) in the Former Raw Materials Storage Area point of compliance well MW-19 in 2008 for volatile organic compounds and arsenic and did not notify the Department. [66264.98(j)(1); HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.2(c)(2), p. 45; HWFP, Part IV.D.2(c)(6), p. 47; HWFP, Part IV.D.2(f)(1), p. 48; HWFP, Part IV.D.3(a), p. 55; HWFP, Part IV.D.3(b)(2), p. 55; HWFP, Part IV.D.4(a), p. 55; HWFP, Part IV.D.4(b)(1), p. 56 and HWFP, Part IV.D.5(a)(1), p. 56]
- j. Collect all data necessary to establish the background concentration for each newly identified Appendix IX constituent and for selecting an appropriate statistical procedure. Groundwater samples were collected for Appendix IX compounds in 2007. Analytical results indicate molybdenum, vanadium, and m,p-xylenes were detected during this sampling event. Background concentrations and appropriate statistical procedures were not established for these constituents. As stipulated in the 2005 HWFP, background wells were to be installed. To date, an adequate background well network has not been installed for the Former Raw Materials Storage Area (See Violation 5c for additional information on designation of background wells). [66264.98(k)(4)(A) and HWFP, Part IV.D.2(c)(6), p. 47]
- k. Submit an application for permit modification within 90 days of determining statistically significant evidence of a release to establish an evaluation monitoring program. The Facility exceeded the maximum contaminant level (interim trigger level) at the point of compliance well for the Former Raw Materials Storage Area for volatile organic compounds and arsenic yet no permit modification was submitted for these identified releases. [66264.98(k)(5)]
- l. Submit an engineering feasibility study for a corrective action program within 180 days of determining statistically significant evidence of a release. The Facility exceeded the maximum contaminant level (interim trigger level) for volatile organic compounds and arsenic in 2008 yet no engineering feasibility study was submitted following this identified release at the Former Raw Materials Storage Area, [66264.98(k)(6)]

- m. Submit an application for permit modification to make appropriate changes to the program within 90 days following the Departments determination that the groundwater detection monitoring program does not satisfy the requirements of section 66264.98. Since 2009, the Department has notified the Facility regarding the lack of an adequate groundwater detection monitoring system for the Former Raw Materials Storage Area. [66264.98(m) and HWFP, Part IV.D.2(c)(7)(b), p. 47]

Violation 5 Compliance Schedule: The Facility shall implement the requirements of the HWFP and applicable sections of 22 CCR 66264.90 through 66264.100. Specifically, the following:

- a. Install a water quality monitoring system appropriate for groundwater detection monitoring and that complies with the HWFP and the provisions of sections 66264.97 and 66264.98 for the Former Raw Materials Storage Area. This is a general requirement to establish an appropriate groundwater detection monitoring program that should be satisfied provided that Violations 5b through 5m are adequately addressed. The Facility submitted a revised *Groundwater Monitoring and Response Plan* to the Department on May 1, 2016 and the Department is in the process of reviewing this document. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department-approved permit modifications.
- b. Comply with the requirements of 66264.97 for any water quality monitoring program developed to satisfy section 66264.98 for the Former Raw Materials Storage Area. The Facility submitted a revised *Groundwater Monitoring and Response Plan* to the Department on May 1, 2016 and the Department is in the process of reviewing this document. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department-approved permit modifications.
- c. Install a sufficient number of background monitoring points at appropriate locations and depths for the Former Raw Materials Storage Area. Provide the Department with a workplan within 60 days from the date of this Summary of Violations which evaluates the current groundwater monitoring system and proposes a monitoring system that will adequately determine if a release has occurred from the Former Raw Materials Storage Area. It is recommended that some background wells be located off site. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department-approved permit modifications.
- d. Install a sufficient number of monitoring points at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality

of groundwater passing the point of compliance for the Former Raw Materials Storage Area. Provide the Department with a workplan within 60 days from the date of this Summary of Violations evaluating the current groundwater monitoring system and proposing a monitoring system that will adequately determine if a release has occurred from the Former Raw Materials Storage Area. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department-approved permit modifications.

- e. Install a sufficient number of monitoring points at additional locations and depths to yield groundwater samples from the uppermost aquifer as necessary. The Former Raw Materials Storage Area has only one groundwater well, MW-19, monitoring releases from this regulated unit. Provide the Department with a workplan within 60 days from the date of this Summary of Violations evaluating the current groundwater monitoring system and proposing a monitoring system to monitor other areas such as north-northwest and southwest of the Former Raw Materials Storage Area to determine water quality in the Lower WBZ. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department-approved permit modifications.
- f. The Sampling and Analysis Plan should comply with 22 CCR and should detail what sampling methods will be used to establish background values and the sampling methods to be used for monitoring each constituent of concern and monitoring parameter listed in the Facility permit. The Sampling and Analysis Plan should also contain the number and kinds of samples collected for the form of statistical test employed to detect a release from the Former Raw Materials Storage Area. The Facility must install background wells for the Former Raw Materials Storage Area per compliance for Violation 5(c) above and the Facility's Sampling and Analysis Plan should be revised to reflect the sampling protocol necessary to collect a sufficient number of groundwater samples from specified wells for statistical analysis. The Facility submitted a revised *Groundwater Monitoring and Response Plan* to the Department on May 1, 2016 and the Department is in the process of reviewing this document. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department-approved permit modifications.
- g. A new Sampling and Analysis Plan should be submitted within 30 days following the installation of new wells. The new Sampling and Analysis Plan should detail the procedure to perform statistical analysis at a frequency of at least quarterly for the first year. The Facility shall submit an application for a permit modification to make appropriate changes to the Sampling and Analysis Plan for Department review and approval.
- h. Submit a Sampling and Analysis Plan for the installation of new wells to detail how the Facility will establish a background value for each monitoring parameter and for

each constituent of concern. The Facility submitted a revised *Groundwater Monitoring and Response Plan* to the Department on May 1, 2016 and the Department is in the process of reviewing this document. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department-approved permit modifications.

- i. Notify the Department of a statistically significant evidence of a release finding, by certified mail, within seven days of such determination. The notification shall identify, for each affected monitoring point, the monitoring parameters and constituents of concern that have indicated statistically significant evidence of a release from the Former Raw Materials Storage Area.
- j. Submit a new Sampling and Analysis Plan within 30 days of installation of new wells to detail how the Facility will collect data necessary to establish the background concentration of each new Appendix IX constituent detected and for selecting an appropriate statistical procedure for those new constituents.
- k. Submit a permit modification application to establish an evaluation monitoring program within 90 days of determining a statistically significant evidence of a release Former Raw Materials Storage Area. See Violation 8 with regards to establishing a groundwater evaluation monitoring program.
- l. Submit an engineering feasibility study for a corrective action program within 180 days of determining there is a statistically significant evidence of a release from the Former Raw Materials Storage Area.
- m. Submit an application for a permit modification to make any appropriate changes to the program within 90 days following the Departments determination that the groundwater detection monitoring program does not satisfy the requirements of section 66264.98.

Violation 6: Failure to Implement a Groundwater Detection Monitoring Program for the Closed Surface Impoundment

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.91(a)(1), 66264.97(a), 66264.97(b)(1)(A), 66264.97(b)(1)(B)(1), 66264.97(b)(1)(B)(2), 66264.97(b)(1)(B)(3), 66264.97(e)(12)(A)(1), 66264.97(e)(12)(B), 66264.98(b), 66264.98(c), 66264.98(j)(1), 66264.98(k)(4)(A), 66264.98(k)(5), 66264.98(k)(6), 66264.98(m), and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to install a groundwater detection monitoring system that is in compliance with the provisions of sections cited above. Specifically, the Facility failed to:

- a. Install a groundwater monitoring system that is appropriate for detection monitoring and that complies with the HWFP and provisions of sections 66264.97

and 66264.98 for the Closed Surface Impoundment. This violation pertains to the general establishment of an adequate groundwater detection monitoring program. [66264.91(a)(1), 66264.98(b) and HWFP, Part IV.D.2(i), p. 50]

- b. Comply with the requirements of the HWFP and 66264.97 for any water quality monitoring program developed to satisfy section 66264.98 for the Closed Surface Impoundment. This violation pertains to general monitoring and system requirements for a groundwater detection monitoring program. [66264.97(a) and HWFP, Part IV.D.2(i), p. 50]
- c. Install an appropriate background groundwater monitoring system including a sufficient number of background monitoring points installed at appropriate locations and depths. Current groundwater wells recommended by the Facility for use as background wells (MW-9 and MW-10) are not adequate as they either exist in areas of known soil contamination, have well design issues, or may be affected by releases to soil and/or groundwater from the Closed Surface Impoundment. No adequate background wells were installed for the Closed Surface Impoundment for the formerly saturated zone (Shallow WBZ) or the current uppermost aquifer (Lower WBZ). [66264.97(b)(1)(A); HWFP, Part IV.D.2(i), p. 50; HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.2(c)(7); p. 47 and HWFP, Part IV.D.2(b)(4), p. 45]
- d. Install a sufficient number of monitoring points at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance. The Closed Surface Impoundment has groundwater wells, MW-11, MW-12, MW-13, and MW-16, in downgradient/cross-gradient positions; however, MW-11 was the only well that had sufficient water to sample in 2015. Wells MW-12 and MW-13 are dry and MW-16 has had insufficient water to sample since installation in 2007. Therefore, there are no point of compliance wells southeast of MW-11 monitoring potential releases from the Closed Surface Impoundment to the Lower WBZ. [66264.97(b)(1)(B)(1); HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.2(g)(1), p. 49 and HWFP, Part IV.D.2(g)(3), p. 49]
- e. Install a sufficient number of monitoring points at additional locations and depths to yield groundwater samples from the uppermost aquifer as necessary. Other existing wells are not located in areas of interest such as north of the San Jose Creek or southwest of the Closed Surface Impoundment to determine water quality in the Lower WBZ. [66264.97(b)(1)(B)(2); HWFP, Part IV.D.2(c), p. 45 and HWFP, Part IV.D.2(b)(3), p. 44]
- f. Install a sufficient number of monitoring points and background monitoring points at appropriate locations and depths to yield groundwater samples from other aquifers, low yielding saturated zones and from zones of perched water, as necessary. A potential zone of saturation, between 13 and 18 feet below ground

surface, occurs within thin interbedded sand and gravel layers beneath the vicinity of the Closed Surface Impoundment. This zone, identified on well logs MW-5, MW-6, MW-17, MW-18, and MW-23, should have been identified as the first or uppermost WBZ, per 22 CCR Article 6 requirements, and then monitored for water quality or at least been subjected to a Department approved assessment. This shallow perched zone could also be in hydraulic connection with the San Jose Creek according to Facility submittals. To date this zone remains uncharacterized for releases from the Closed Surface Impoundment. [66264.97(b)(1)(B)(3); HWFP, Part IV.D.2(c), p. 45; HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.2(b)(3), p. 44 and HWFP, Part IV.D.2(i), p. 50]

- g. Propose sampling methods for each constituent of concern and monitoring parameter listed in the Facility permit, to establish background values to be used for monitoring pursuant to this article. The number and kinds of samples collected shall be appropriate for the form of statistical test employed to detect a release from the Closed Surface Impoundment. The Facility was to use the maximum contaminant level as an interim criterion in 2007 to establish a release from the Closed Surface Impoundment until statistically valid background concentrations were established. Currently, the Facility still does not have any background wells for the Closed Surface Impoundment and the Facility's Sampling and Analysis Plan does not include sampling protocols for statistical analysis for each constituent of concern and monitoring parameter listed in the Facility permit. The Facility should have developed a methodology to collect background water quality samples and compare the background data to the downgradient point of compliance data from the Closed Surface Impoundment. [66264.97(e)(12)(A)(1); HWFP, Part IV.D.2(b)(2), p. 44; HWFP, Part IV.D.2(b)(3), p. 44; HWFP, Part IV.D.2(b)(4), p. 45; HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.2(c)(2), p. 45; HWFP, Part IV.D.2(c)(4), p. 45; HWFP, Part IV.D.2(c)(6), p. 47; HWFP, Part IV.D.2(c)(7), p. 47; HWFP, Part IV.D.2(i)(3), p. 50 and HWFP, Part IV.D.2(i)(4), p. 50]
- h. Perform statistical analysis at least quarterly. The Facility was to use the maximum contaminant level as an interim criterion to establish a release from the Closed Surface Impoundment until statistically valid background concentrations were established. The Facility did statistics on select water quality data infrequently and has not calculated an adequate statistical background value for any of the site constituents of concern and still relies on the maximum contaminant level as a release trigger level instead of actual background groundwater quality data. (See Violation 6c for additional information on designation of background wells). The Facility must calculate statistically valid background concentrations on a quarterly basis until mutually modified by the Department and the Facility. [66264.97(e)(12)(B); HWFP, Part IV.D.2(c)(2), p. 45; HWFP, Part IV.D.2(c)(4), p. 45; HWFP, Part IV.D.2(c)(6), p. 47; HWFP, Part

IV.D.2(c)(7), p. 47; HWFP, Part IV.D.2(i), p. 50; HWFP, Part IV.D.2(i)(2), p. 50; HWFP, Part IV.D.2(i)(3), p. 50; HWFP, Part IV.D.2(i)(4), p. 50; HWFP, Part IV.D.2(i)(5), p. 50 and HWFP, Part IV.D.2(j), p. 51]

- i. Establish a background value for each monitoring parameter and for each constituent of concern. The Facility was to use the maximum contaminant level as an interim criterion to establish a release from the Closed Surface Impoundment until statistically valid background concentrations were established. The Facility did statistics on select water quality data infrequently and has not calculated an adequate statistical background value for any of the site constituents of concern and still relies on the maximum contaminant level as a release trigger level instead of actual background groundwater quality data (See Violation 6c for additional information on designation of background wells). [66264.98(c); HWFP, Part IV.D.2(b)(2), p. 44; HWFP, Part IV.D.2(b)(4), p. 45; HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.3(b)(2), p. 55; HWFP, Part IV.D.4(b)(1), p. 56; HWFP, Part IV.D.5(a)(1), p. 56; HWFP, Part IV.D.5(b)(6), p. 57 and HWFP, Part IV.D.5(b)(7), p. 57]
- j. Notify the Department of a statistically significant evidence of a release finding, by certified mail, within seven days of such determination. The notification shall identify for each affected monitoring point the monitoring parameters and constituents of concern that have indicated statistically significant evidence of a release from the Closed Surface Impoundment. The Facility has exceeded the maximum contaminant level (interim trigger level) in the Closed Surface Impoundment point of compliance and surrounding wells for volatile organic compounds (2008), sulfates (2007, 2008, and 2009) and arsenic (2007, 2008 and 2009) and did not notify the Department in the prescribed manner. [66264.98(j)(1); HWFP, Part IV.D.2(c)(1), p. 45; HWFP, Part IV.D.2(c)(2), p. 45; HWFP, Part IV.D.2(c)(6), p. 47; HWFP, Part IV.D.2(f)(1), p. 48; HWFP, Part IV.D.3(a), p. 55; HWFP, Part IV.D.3(b)(2), p. 55; HWFP, Part IV.D.4(a), p. 55; HWFP, Part IV.D.4(b)(1), p. 56 and HWFP, Part IV.D.5(a)(1), p. 56]
- k. Collect all data necessary to establish the background concentration for each newly identified Appendix IX constituent and for selecting an appropriate statistical procedure. Groundwater samples were collected for Appendix IX compounds in 2007. Analytical results indicate molybdenum, vanadium, and m,p-xylenes were detected during this sampling event. Background concentrations and appropriate statistical procedures were not established for these constituents. As stipulated in the 2005 HWFP, background wells were to be installed. To date, adequate background wells have not been installed for the Closed Surface Impoundment (See Violation 6c for additional information on designation of background wells). [66264.98(k)(4)(A) and HWFP, Part IV.D.2(c)(6), p. 47]

- l. Submit an application for permit modification to establish an evaluation monitoring program within 90 days of determining statistically significant evidence of a release. The Facility exceeded the maximum contaminant level (interim trigger level) at the point of compliance wells for the Closed Surface Impoundment for sulfate, arsenic, and volatile organic compounds, yet no permit modification was submitted for these identified releases. [66264.98(k)(5)]
- m. Submit an engineering study for a corrective action program within 180 days of determining statistically significant evidence of a release. The Facility exceeded the maximum contaminant level (interim trigger level) for volatile organic compounds (2008), sulfates (2007, 2008, and 2009) and arsenic (2007, 2008 and 2009), yet no engineering feasibility study was submitted following this identified release at the Closed Surface Impoundment. [66264.98(k)(6)]
- n. Submit an application for a permit modification to make any appropriate changes to the program within 90 days following the Department's determination that the groundwater detection monitoring program does not satisfy the requirements of section 66264.98. In a 2009 memorandum, the Department notified the Facility regarding the lack of an adequate groundwater monitoring system for the Closed Surface Impoundment. [66264.98(m) and HWFP, Part IV.D.2(c)(7)(b), p. 47]

Violation 6 Compliance Schedule: The Facility shall implement the requirements of the HWFP and applicable sections of 22 CCR 66264.90 through 66264.100. Specifically, the following:

- a. Install a water quality monitoring system appropriate for groundwater detection monitoring and that complies with the provisions of sections 66264.97 and 66264.98 for the Closed Surface Impoundment. This is a general requirement to establish an appropriate groundwater detection monitoring program that should be satisfied provided that Violations 6b through 6n are adequately addressed. The Facility submitted a revised *Groundwater Monitoring and Response Plan* to the Department on May 1, 2016 and the Department is in the process of reviewing this document. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- b. Comply with the requirements of 66264.97 for any water quality monitoring program developed to satisfy section 66264.98 for the Closed Surface Impoundment. The Facility submitted a revised *Groundwater Monitoring and Response Plan* to the Department on May 1, 2016 and the Department is in the process of reviewing this document. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.

- c. Install a sufficient number of background monitoring points at appropriate locations and depths for the Closed Surface Impoundment. Provide the Department with a workplan within 60 days from the date of this Summary of Violations which evaluates the current groundwater monitoring system and proposes a monitoring system that will adequately determine if a release has occurred from the Closed Surface Impoundment. It is recommended that some background wells be located off site. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- d. Install a sufficient number of monitoring points at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance for the Closed Surface Impoundment. Provide the Department with a workplan within 60 days from the date of this Summary of Violations evaluating the current groundwater monitoring system and proposing a monitoring system that will adequately determine if a release has occurred from the Closed Surface Impoundment. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- e. Install a sufficient number of monitoring points at additional locations and depths to yield groundwater samples from the uppermost aquifer as necessary. The Closed Surface Impoundment has only one groundwater well, MW-11, monitoring releases from this regulated unit. Provide the Department with a workplan within 60 days from the date of this Summary of Violations evaluating the current groundwater monitoring system and proposing a monitoring system to monitor other areas such as north-northwest and southwest of the Closed Surface Impoundment to determine water quality in the Lower WBZ. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- f. Install a sufficient number of monitoring points and background monitoring points at appropriate locations and depths to yield groundwater samples from other aquifers, low yielding saturated zones and from zones of perched water, as necessary. A zone, identified on well logs MW-5, MW-6, MW-17, MW-18, and MW-23, should have been identified as the first or uppermost WBZ, and then monitored for water quality or at least been subjected to a Department approved assessment. Provide the Department with a workplan within 60 days from the date of this Summary of Violations evaluating the current groundwater monitoring system and proposing a monitoring system that will adequately determine if a release has occurred from the Closed Surface Impoundment. This workplan must include determining if the shallow water bearing zone discussed above can be monitored via conventional groundwater wells or other monitoring devices (e.g., pore water samplers/soil gas probes). Implement the plan within 30 days after

the Department's approval/conditional approval and any necessary Department approved permit modifications.

- g. Submit a new Sampling and Analysis Plan within 30 days following the installation of new wells. The Sampling and Analysis Plan should comply with 22 CCR and should detail what sampling will be used to establish background values and the sampling protocols and procedures to be used for monitoring each constituent of concern and monitoring parameter listed in the Facility permit. The Sampling and Analysis Plan should contain the number and kinds of samples collected for the form of statistical test employed to detect a release from the Closed Surface Impoundment. The Facility must install background wells for the Closed Surface Impoundment per compliance for Violation 5 and 6. The Facility's Sampling and Analysis Plan should be revised to reflect the sampling protocol necessary to collect a sufficient number of groundwater samples from specified wells for statistical analysis.
- h. Submit a new Sampling and Analysis Plan within 30 days following the installation of new wells. The new Sampling and Analysis Plan should detail the procedure to perform statistical analysis, at a frequency of at least quarterly for the first year. The Department should evaluate and approve appropriate changes to the sampling program. The Facility shall submit an application for a permit modification to make the appropriate changes to the Sampling and Analysis Plan, if necessary.
- i. Submit a new Sampling and Analysis Plan within 30 days of installation of new wells to detail how the Facility will establish a background value for each monitoring parameter and for each constituent of concern.
- j. Notify the Department of a statistically significant evidence of a release finding, by certified mail, within seven days of such determination. The notification shall identify, for each affected monitoring point, the monitoring parameters and constituents of concern that have indicated statistically significant evidence of a release from the Closed Surface Impoundment.
- k. Submit a new Sampling and Analysis Plan within 30 days of installation of new wells to detail how the Facility will collect data necessary to establish the background concentration of each new Appendix IX constituent detected and for selecting an appropriate statistical procedure for those new constituents.
- l. Submit a permit modification application to establish an evaluation monitoring program within 90 days of determining a statistically significant evidence of a release. See Violation 9 with regards to establishing a groundwater evaluation monitoring program.

- m. Submit an engineering feasibility study for a corrective action program within 180 days of determining there is a statistically significant evidence of a release from the Closed Surface Impoundment.
- n. Submit an application for a permit modification to make any appropriate changes to the Closed Surface Impoundment monitoring program within 90 days following the Department's determination that the groundwater detection monitoring program does not satisfy the requirements of section 66264.98.

Violation 7: Failure to Implement a Groundwater Detection Monitoring Program (Non-Unit Specific)

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.97(b)(8), 66264.97(e)(15), and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to install a groundwater detection monitoring system that is in compliance with the provisions provisions of sections cited above. Specifically, the Facility failed to:

- a. Destroy all wells that no longer provide useful information. Prior to the 1996 Comprehensive Monitoring Evaluation (CME) at this Facility, US EPA, the Los Angeles Regional Water Quality Control Board, and the Department determined groundwater monitoring wells MW-1 through MW-4 and MW-20 were improperly constructed to collect representative water quality samples. The remaining monitoring wells should be evaluated to determine whether they can be used in the future monitoring system or appropriately decommissioned. [66264.97(b)(8); HWFP, Part IV.D.2(L)(6), p. 52; HWFP, Part IV.D.2(m)(1), p. 53; HWFP, Part IV.D.2(m)(2), p. 53 and HWFP, Part IV.D.2(m)(3)(a), p. 53]
- b. Measure the water level in each groundwater well and determine groundwater flow rate and direction in the uppermost aquifer and in any zones of perched water and in any additional aquifers at least annually. If the annual evaluation shows that the requirements of section 66264.97(b)(1) are not satisfied, the Facility shall submit an application for a permit modification to make the appropriate changes to modify the number, location or depth of the groundwater monitoring wells as necessary to bring the groundwater monitoring system into compliance. While the groundwater flow rate and direction are calculated annually and quarterly, respectively, the values for the hydraulic conductivity value used were last measured in the Shallow WBZ at MW-7 in 1988 and in the Lower WBZ in 1992 using MW-9, MW-10 and MW-11. While the Shallow WBZ is currently dry, the Lower WBZ wells used for hydraulic conductivity only represent one-quarter to one-third of the site lithology. Additionally, groundwater levels have fluctuated widely since 1992 in the saturated zone below the regulated units, warranting additional investigation and testing in the Lower

WBZ. [66264.97(e)(15); HWFP, Part IV.D.2(k)(2), p. 51 and HWFP, Part IV.D.2(k)(5)(b), p. 51]

Violation 7 Compliance Schedule: The Facility shall implement the requirements of the HWFP and applicable sections of 22 CCR 66264.90 through 66264.100. Specifically, the following:

- a. Decommission wells if they will no longer provide useful information. At a minimum, groundwater wells MW-1, MW-2, MW-3, MW-4, and MW-20 should be decommissioned. A well decommissioning workplan should be submitted to the Department within 60 days from the date of this Summary of Violations. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- b. Submit an aquifer test workplan to the Department within 30 days to improve groundwater flow rate calculations, at a minimum, the workplan should select new and/or existing wells as observation and pumping wells to obtain data to calculate the hydraulic conductivity for all aquifer zones at the site. The workplan must include an implementation schedule and must be approved by the Department prior to implementation. Additionally, in the future, the Facility must evaluate water level and flow rate and direction data at least annually to ensure that the requirements of section 66264.97(b)(1) are satisfied and, if not, submit an application for a permit modification to make appropriate changes to modify the number, location or depth of the groundwater monitoring wells as necessary to bring the groundwater monitoring system into compliance.

Violation 8: Failure to Implement a Groundwater Evaluation Monitoring Program for the Former Raw Materials Storage Area

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.91(a)(2), 66264.97(a), 66264.97(b)(1)(C)(1), 66264.97(b)(1)(C)(2), 66264.97(e)(12)(A)(2), 66264.99(a), 66264.99(b), 66264.99(c), 66264.99(d), 66264.99(e)(1), 66264.99(e)(3), 66264.99(e)(4), 66264.99(e)(6), 66264.99(h), 66264.99(i) and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to implement a groundwater evaluation monitoring system in compliance with the provisions of sections cited above. Specifically, the Facility failed to:

- a. Institute and comply with an evaluation monitoring program whenever there is statistically significant evidence of a release from the Former Raw Materials Storage Area during a detection monitoring program. The evaluation monitoring program shall be used to assess the nature and extent of the release from the regulated unit and to design a corrective action program meeting the requirements of section 66264.100. This violation pertains to the general establishment of an adequate groundwater evaluation monitoring program.[66264.91(a)(2); 66264.97(a); 66264.99(a); and HWFP, Part IV.D.2(j), p. 51]
- b. Install a sufficient number of monitoring points and background monitoring points at appropriate locations and depths to yield groundwater samples from other aquifers, low yielding saturated zones and zones of perched water as necessary to provide the best assurance of the earliest possible detection of a release from the Former Raw Materials Storage Area. A potential shallow zone of saturation, between 13 and 18 feet below ground surface, occurs within thin interbedded layers beneath the vicinity of the Former Raw Materials Storage Area. This zone, identified on well boring logs MW-19 and 20 and on a cross section presented by the Facility during the October 7, 2015 meeting, had perched water detected previously and should have been identified as the first or uppermost WBZ, per 22 CCR Article 6 requirements, and then monitored for water quality or at least been subjected to a Department approved assessment. To date, this zone remains uncharacterized for releases from the Former Raw Materials Storage Area. [66264.97(b)(1)(C)(2); HWFP, Part IV.D.2(b)(4), p. 45; HWFP, Part IV.D.2(c), p. 45; HWFP, Part IV.D.2(c)(1), p. 45; and HWFP, Part IV.D.2(j), p. 50]
- c. Install a sufficient number of monitoring points, at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance, and at other locations in the uppermost aquifer as necessary, to provide the data needed to evaluate changes in water quality due to the release from the Former Raw Materials Storage Area. Since groundwater monitoring wells MW-5 (2001-2006 and 2007 to present), MW-12 (2015), MW-13 (2015), MW-16 (2007), MW-17 (2008), and MW-18 (2009) are all dry (date wells went dry in brackets), the Former Raw Materials Storage Area does not have a sufficient number of evaluation wells downgradient of the point of compliance well to evaluate water quality. [66264.97(b)(1)(C)(1); HWFP, Part IV.D.2(g)(1), p. 49; HWFP, Part IV.D.2(g)(3), p. 49; and HWFP, Part IV.D.2(j), p. 50]
- d. Propose for each constituent of concern and monitoring parameter listed in the Facility permit, the sampling methods to be used to establish background values appropriate for the form of statistical test employed. The sample size shall be as large as necessary to ensure changes in water quality due to a release from the regulated unit will be recognized. The sampling method, including the sampling frequency and the interval of time between successive samples, shall be appropriate for groundwater. As stated in Facility annual and quarterly groundwater

monitoring reports from 2009 to 2015, the Facility was to use maximum contaminant levels as an interim criterion to identify releases from the Former Raw Materials Storage Area until statistically valid background concentrations were established. Currently, the Facility still does not have any appropriate background wells for the Former Raw Materials Storage Area and the Facility's Sampling and Analysis Plan does not include sampling for statistical analysis. Additionally, the potential evaluation monitoring wells designated by the HWFP and the Facility's Sampling and Analysis Plan are dry, preventing sample collection and evaluation of releases from the Former Raw Materials Storage Area. [66264.97(e)(12)(A)(2) and HWFP, Part IV.D.2(j), p. 51]

- e. Collect and analyze all data necessary to assess the nature and extent of the release from the Former Raw Materials Storage Area. This assessment shall include a determination of the spatial distribution and concentration of each constituent of concern throughout the zone affected by the release. The Facility shall complete and submit this assessment to the Department within 90 days of establishing an evaluation monitoring program. The Department has no record of receiving this assessment. Currently, the Facility cannot evaluate the spatial distribution and concentration of all constituents of concern because potential evaluation wells MW-16, MW-17, and MW-18 are dry. [66264.99(b); HWFP, Part IV.D.2(j), p. 51; and HWFP, Part IV.D.2(j)(2), p. 51]
- f. Update the engineering feasibility study within 90 days of establishing an evaluation monitoring program based on the data collected from wells to evaluate the nature and extent of the release from the Former Raw Materials Storage Area as required under section 66264.98(k)(6). Evaluation monitoring was established by the HWFP and the Facility Sampling and Analysis Plan and the Department has no record of receiving a feasibility study from the Facility for the Former Raw Materials Storage Area. [66264.99(c)]
- g. Monitor groundwater to evaluate changes in water quality resulting from the release from the Former Raw Materials Storage Area. In conducting this monitoring, the Facility shall install water quality monitoring systems that are appropriate for evaluation monitoring and comply with the provisions of section 66264.97. These water quality monitoring systems may include all or part of existing monitoring systems. Once releases from the Former Raw Materials Storage Area were detected, the nature and extent were not adequately evaluated since additional evaluation wells were not installed and existing wells were not, or could not, be used in evaluation monitoring as evident in the Facility Sampling and Analysis Plan and annual groundwater monitoring reports. Existing downgradient potential evaluation monitoring wells for the Former Raw Materials Storage Area (MW-16, MW-17, and MW-18) are dry. [66264.99(e)(1) and HWFP, Part IV.D.2(j), p. 51]

- h. Conduct sampling and analyses for the constituents of concern and monitoring parameters listed in the Facility permit. For groundwater, sampling shall be scheduled to include the times of expected highest and lowest annual elevations. The Facility cannot adequately evaluate releases from the Former Raw Materials Storage Area or conduct statistical analyses to evaluate changes in water quality due a release from the Former Raw Materials Storage Area since most of the wells at the Facility are dry and, therefore, cannot be sampled for constituents of concern and monitoring parameters. [66264.99(e)(3); 66264.99(e)(4); HWFP, Part IV.D.2(c)(2), p. 45; HWFP, Part IV.D.2(c)(4), p. 45; and HWFP, Part IV.D.2(j)(2), p. 51]
- i. Analyze samples from all monitoring points affected by a release from the regulated unit for all constituents contained in Appendix IX to chapter 14 at least annually to determine whether additional hazardous constituents are present and, if so, at what concentration(s). According to the Facility annual groundwater monitoring reports and Sampling and Analysis Plan, Appendix IX samples were only collected in 2007. Appendix IX analyses should have been conducted at least annually at all monitoring wells affected by a release from the Former Raw Materials Storage Area. [66264.99(e)(6) and HWFP, Part IV.D.2(c)(4), p. 45]
- j. Submit an application for a permit modification within 90 days to make any appropriate if the Facility determines that the evaluation monitoring program does not satisfy the requirements of 66264.99. Once releases from the Former Raw Materials Storage Area were detected, the nature and extent was not evaluated adequately since no additional evaluation wells, beside MW-16, MW-17, and MW-18 (installed and went dry in 2007, 2008, and 2009, respectively), were installed and no existing wells were used for evaluation monitoring as evident in the Facility Sampling and Analysis Plan and annual groundwater monitoring reports. Also, the Facility cannot adequately evaluate releases from the Former Raw Materials Storage Area or conduct statistical analyses to evaluate changes in water quality due a release from the Former Raw Materials Storage Area since most of the wells at the Facility are dry and, therefore, cannot be sampled for monitoring parameters or all constituents of concern periodically. There are currently insufficient upgradient, point of compliance, and downgradient wells to assess the nature and extent of releases and adequately evaluate changes in water quality resulting from releases from the Former Raw Materials Storage Area. The Facility did not submit an application for a permit modification to make any appropriate changes to the program for monitoring the Former Raw Materials Storage Area. [66264.99(h)]
- k. Submit an application for a permit modification to make appropriate changes to the program any time the Department determines that the evaluation monitoring program does not satisfy the requirements of 66264.99, the Department shall send written notification of such determination to the Facility by certified mail, return receipt requested. The Department outlined issues related to the monitoring

program for the Former Raw Materials Storage Area in a memorandum from 2009. The Department has not received an application for a permit modification to make appropriate changes to the monitoring program for the Former Raw Materials Storage Area. ([66264.99(i)])

Violation 8 Compliance Schedule: The Facility shall implement the requirements of the HWFP and applicable sections of 22 CCR 66264.90 through 66264.100. Specifically, the following:

- a. Install a groundwater evaluation monitoring program to assess the nature and extent of the release from the regulated unit. This is a general requirement to establish an appropriate groundwater evaluation monitoring program that should be satisfied provided that Violations 8b through 8k are adequately addressed. The Facility submitted a revised *Groundwater Monitoring and Response Plan* to the Department on May 1, 2016 and the Department is in the process of reviewing this document. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- b. Install a sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from other aquifers, low yielding saturated zones and zones of perched water as necessary to provide the data needed to evaluate changes in water quality due to the release from the Former Raw Materials Storage Area. A shallow zone identified on well logs (e.g., MW-19 and 20), should have been identified as the first or uppermost WBZ, and then monitored for water quality or at least been subjected to a Department approved assessment. Provide the Department with a workplan within 60 days from the date of this Summary of Violations evaluating the current groundwater monitoring system which proposes a monitoring system that will adequately determine if a release has occurred from the Former Raw Materials Storage Area. This workplan must determine if the shallow water bearing zone discussed above can be monitored via conventional groundwater wells or other monitoring devices (e.g., pore water samplers/soil gas probes). Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- c. Submit a workplan, within 180 days of the date of this Summary of Violations to install a sufficient number of monitoring points and background monitoring points, at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance, and at other locations in the uppermost aquifer as necessary, to provide the data

needed to evaluate changes in water quality due to the release from the Former Raw Materials Storage Area. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.

- d. Submit a Sampling and Analysis Plan, within 30 days of establishing an evaluation monitoring program, to detail the sampling methods to be used to establish background values for each constituent of concern and monitoring parameter listed in the Facility permit appropriate for the form of statistical test employed.
- e. Submit a workplan, within 180 days of the date of this Summary of Violations, detailing how the Facility will collect and analyze all data necessary to assess the nature and extent of the release from the Former Raw Materials Storage Area. This assessment shall include a determination of the spatial distribution and concentration of each constituent of concern throughout the zone affected by the release. The workplan should acknowledge that additional characterization and/or vertical delineation of saturated zones (including any newly identified zones) may be required. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- f. Submit and/or update the engineering feasibility study within 90 days of establishing an evaluation monitoring program required under section 66264.98(k)(6).
- g. Establish an evaluation monitoring program in accordance with section 66264.99. See compliance requirements for 8b through 8k.
- h. Submit a Sampling and Analysis Plan detailing sampling and analyses for the constituents of concern and monitoring parameters listed in the Facility permit within 30 days following installation of the new evaluation monitoring wells. The Department shall specify in the Facility permit the frequencies for collecting samples and for conducting statistical analyses to evaluate changes in water quality due to the release from the Former Raw Materials Storage Area.
- i. Submit a Sampling and Analysis Plan, within 30 days following installation of the new evaluation monitoring wells, detailing the sampling from all monitoring points affected by a release from the regulated unit for all constituents contained in Appendix IX to chapter 14, at least annually, to determine whether additional hazardous constituents are present and, if so, at what concentration(s).
- j. Submit, within 90 days, an application for a permit modification to make any appropriate changes to the program if the Facility determines that the evaluation monitoring program does not satisfy the requirements of 66264.99.
- k. Submit an application for permit modification to make appropriate changes to the evaluation monitoring program, if the Department determines that the program does

not satisfy the requirements of 66264.99 within 90 days. The Department shall send written notification of such determination to the Facility by certified mail, return receipt requested.

Violation 9: Failure to Implement a Groundwater Evaluation Monitoring Program for the Closed Surface Impoundment

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.91(a)(2), 66264.97(a), 66264.97(b)(1)(C)(1), 66264.97(b)(1)(C)(2), 66264.97(e)(12)(A)(2), 66264.99(a), 66264.99(b), 66264.99(c), 66264.99(d), 66264.99(e)(1), 66264.99(e)(3), 66264.99(e)(4), 66264.99(e)(6), 66264.99(h), 66264.99(i) and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to implement a groundwater evaluation monitoring system in compliance with the provisions of sections cited above. Specifically the Facility failed to:

- a. Institute and comply with a groundwater evaluation monitoring program whenever there is statistically significant evidence of a release from the Closed Surface Impoundment. The evaluation monitoring program shall be used to assess the nature and extent of the release from the Closed Surface Impoundment and to design a corrective action program meeting the requirements of section 66264.100. This violation pertains to the general establishment of an adequate groundwater evaluation monitoring program. [66264.91(a)(2); 66264.97(a); 66264.99(a); and HWFP, Part IV.D.2(j), p. 51].
- b. Install a sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from other aquifers, low yielding saturated zones and zones of perched water as necessary to provide the data needed to evaluate changes in water quality due to the release from the Closed Surface Impoundment. A potential shallow zone of saturation, between 13 and 18 feet below ground surface, occurs within thin interbedded sand and gravel layers beneath the vicinity of the Closed Surface Impoundment. This zone, identified on well boring logs MW-5, MW-6, MW-17, MW-18, and MW-23 and on a cross section presented by the Facility during the October 7, 2015 meeting, had perched water detected previously and should have been identified as the first or uppermost WBZ, per 22 CCR Article 6 requirements, and then monitored for water quality or at least been subjected to a Department approved assessment. To date this zone remains uncharacterized for releases from the Closed Surface Impoundment. [66264.97(b)(1)(C)(2); HWFP, Part IV.D.2(b)(4), p. 45; HWFP, Part IV.D.2(c), p. 45; HWFP, Part IV.D.2(c)(1), p. 45; and HWFP, Part IV.D.2(j), p. 50]

- c. Install a sufficient number of monitoring points, at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance, and at other locations in the uppermost aquifer as necessary, to provide the data needed to evaluate changes in water quality due to the release from the Closed Surface Impoundment. Since monitoring wells MW-22 and MW-23, designated as the downgradient evaluation wells in the HWFP and Sampling and Analysis Plan, are dry (Both in 2014), the Facility has an insufficient number of wells to collect data to evaluate releases from the Closed Surface Impoundment. [66264.97(b)(1)(C)(1); HWFP, Part IV.D.2(g)(1), p. 49; HWFP, Part IV.D.2(g)(3), p. 49; and HWFP, Part IV.D.2(j), p. 50]
- d. Propose the sampling methods to be used to establish background values appropriate for the form of the statistical test employed for each constituent of concern and monitoring parameter listed in the Facility permit. The sample size shall be as large as necessary to ensure changes in water quality due to a release from the Closed Surface Impoundment will be recognized. The sampling method, including the sampling frequency and the interval of time between successive samples, shall be appropriate for groundwater. As stated in Facility annual and quarterly groundwater monitoring reports from 2009 to 2015, the Facility was to use maximum contaminant level as an interim criterion to identify releases from the Closed Surface Impoundment until statistically valid background concentrations were established. Currently, the Facility still does not have any appropriate background wells for the Closed Surface Impoundment units and the Facility's Sampling and Analysis Plan does not include sampling for statistical analysis. Additionally, the evaluation monitoring wells designated by the HWFP and the Facility's Sampling and Analysis Plan are dry, preventing sample collection and evaluation of releases from the Closed Surface Impoundment. [66264.97(e)(12)(A)(2) and HWFP, Part IV.D.2(j), p. 51]
- e. Collect and analyze all data necessary to assess the nature and extent of the release from the Closed Surface Impoundment. This assessment shall include a determination of the spatial distribution and concentration of each constituent of concern throughout the zone affected by the release. The Facility shall complete and submit this assessment to the Department within 90 days of establishing an evaluation monitoring program. The Department has no record of receiving this assessment. Currently, the Facility cannot evaluate the spatial distribution and concentration of all constituents of concern because both evaluation wells for the Closed Surface Impoundment (MW-22 and MW-23) are dry. [66264.99(b); HWFP, Part IV.D.2(j), p. 51; and HWFP, Part IV.D.2(j)(2), p. 51]
- f. Update the engineering feasibility study required under section 66264.98(k)(6) based on the data collected from groundwater wells to evaluate the nature and extent of the release from the Closed Surface Impoundment. The Facility shall submit this engineering feasibility study to the Department within 90 days of

establishing an evaluation monitoring program. Evaluation monitoring was established by the HWFP and the Facility Sampling and Analysis Plan and the Department has no record of receiving a feasibility study from the Facility for the Closed Surface Impoundment. [66264.99(c)]

- g. Determine the spatial distribution and assess the nature and extent of releases from the Closed Surface Impoundment within 90 days of establishing an evaluation monitoring program and develop an engineering feasibility study. The Facility shall submit an application for a permit modification to establish a corrective action program meeting the requirements of section 66264.100, if necessary. The Department has no record of receiving a feasibility study from the Facility or a permit modification application following the establishment of the evaluation monitoring program. [66264.99(d)]
- h. Monitor groundwater to evaluate changes in water quality resulting from the release from the Closed Surface Impoundment. In conducting this monitoring, the Facility shall install groundwater monitoring systems that are appropriate for evaluation monitoring and comply with the provisions of section 66264.97. These water quality monitoring systems may include all or part of existing monitoring systems. Once releases from the Closed Surface Impoundment were detected, the nature and extent were not evaluated adequately since additional evaluation wells, with the exception of MW-22 and MW-23, were not installed and existing wells were not used in evaluation monitoring as evident in the Facility Sampling and Analysis Plan and annual groundwater monitoring reports. Additionally, both designated evaluation monitoring wells for the Closed Surface Impoundment are dry (since 2015). [66264.99(e)(1) and HWFP, Part IV.D.2(j), p. 51]
- i. Conduct sampling and analyses for all constituents of concern and monitoring parameters listed in the Facility permit. The Department shall specify in the Facility permit the frequencies for collecting samples and for conducting statistical analyses to evaluate changes in water quality due to the release from the Closed Surface Impoundment. For groundwater, sampling shall be scheduled to include the times of expected highest and lowest annual elevations. The Facility cannot adequately evaluate releases from the Closed Surface Impoundment or conduct statistical analyses to evaluate changes in water quality due a release from the Closed Surface Impoundment since most of the wells at the Facility are dry and, therefore, cannot be sampled for all constituents of concern and monitoring parameters. [66264.99(e)(3); 66264.99(e)(4); HWFP, Part IV.D.2(c)(2), p. 45; HWFP, Part IV.D.2(c)(4), p. 45; and HWFP, Part IV.D.2(j)(2), p. 51]
- j. Analyze samples from all monitoring points affected by a release from the Closed Surface Impoundment for all constituents contained in Appendix IX to chapter 14 at least annually to determine whether additional hazardous constituents are present and, if so, at what concentration(s). The Facility may propose to modify the number

of monitoring points and specific Appendix IX analytes based on site-specific conditions and previous Appendix IX sampling results. According to the Facility annual groundwater monitoring reports and Sampling and Analysis Plan, Appendix IX samples were only collected in 2007. Appendix IX analyses should have been conducted at least annually at all monitoring wells affected by a release from the Closed Surface Impoundment. [66264.99(e)(6) and HWFP, Part IV.D.2(c)(4), p. 45]

- k. Submit an application for a permit modification to make any appropriate changes to the evaluation monitoring program if the Facility determines that the evaluation monitoring program does not satisfy the requirements of 66264.99 within 90 days, Once releases from the Closed Surface Impoundment were detected, the nature and extent was not evaluated adequately since no additional evaluation wells, beside MW-22 and MW-23 installed in 2007, were installed and no existing wells were used for evaluation monitoring as evident in the Facility Sampling and Analysis Plan and annual groundwater monitoring reports. Also, the Facility cannot adequately evaluate releases from the Closed Surface Impoundment or conduct statistical analyses to evaluate changes in water quality due a release from the Closed Surface Impoundment since most of the wells at the Facility are dry and, therefore, cannot be sampled for monitoring parameters or all constituents of concern periodically. There are currently insufficient upgradient, point of compliance, and downgradient wells to assess the nature and extent of releases and adequately evaluate changes in water quality resulting from releases from the Closed Surface Impoundment. The Facility did not submit an application for a permit modification to make any appropriate changes to the program for monitoring the Closed Surface Impoundment. [66264.99(h)]
- l. Submit an application for permit modification to make appropriate changes to the evaluation monitoring program, within 90 days, any time the Department determines that the program does not satisfy the requirements of 66264.99. The Department shall send written notification of such determination to the Facility by certified mail, return receipt requested. The Department outlined issues related to the monitoring program for the Closed Surface Impoundment in a memorandum from 2009. The Department has not received an application for a permit modification to make appropriate changes to the monitoring program for the Closed Surface Impoundment. [66264.99(i)]

Violation 9 Compliance Schedule: The Facility shall implement the requirements of the HWFP and applicable sections of 22 CCR 66264.90 through 66264.100. Specifically, the following:

- a. Install a groundwater evaluation monitoring program to assess the nature and extent of the release from the Closed Surface Impoundment. This is a general

requirement to establish an appropriate evaluation monitoring program that should be satisfied provided that Violations 9b through 9l are adequately addressed.

- b. Submit a workplan , within 180 days from the date of this Summary of Violations, to install a sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from other aquifers, low yielding saturated zones and zones of perched water as necessary to provide the data needed to evaluate changes in water quality due to the release from the Closed Surface Impoundment Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- c. Submit a workplan, within 180 days from the date of this Summary of Violations, to install a sufficient number of monitoring points and background monitoring points, at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance, and at other locations in the uppermost aquifer as necessary, to provide the data needed to evaluate changes in water quality due to the release from the Closed Surface Impoundment. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- d. Propose, within 30 days of establishing a groundwater evaluation monitoring program, the sampling methods to be used to establish background values for each constituent of concern and monitoring parameter listed in the Facility permit appropriate for the form of statistical test employed.
- e. Submit a workplan, within 180 days from the date of this Summary of Violations, detailing how the Facility will collect and analyze all data necessary to assess the nature and extent of the release from the Closed Surface Impoundment. This assessment shall include a determination of the spatial distribution and concentration of each constituent of concern throughout the zone affected by the release. The workplan should acknowledge that additional characterization and/or vertical delineation of saturated zones (including any newly identified zones) may be required. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- f. Submit and/or update, within 90 days of establishing an evaluation monitoring program, the engineering feasibility study required under section 66264.98(k)(6).
- g. Determine the spatial distribution and assess the nature and extent of releases from the Closed Surface Impoundment within 90 days of establishing an evaluation monitoring program and develop an engineering feasibility study. The Facility shall

submit an application for a permit modification to establish a corrective action program meeting the requirements of section 66264.100, if necessary.

- h. Establish a groundwater evaluation monitoring program in accordance with section 66264.99. See compliance requirements for 9b through 9l.
- i. Submit a Sampling and Analysis Plan, within 60 days following installation of the new evaluation monitoring wells, detailing sampling and analyses for all constituents of concern and monitoring parameters listed in the Facility permit for review and approval. The Department shall specify in the Facility permit the frequencies for collecting samples and for conducting statistical analyses to evaluate changes in water quality due to the release from the Closed Surface Impoundment.
- j. Submit a Sampling and Analysis Plan, within 60 days following installation of the new evaluation monitoring wells, detailing the sampling from all monitoring points affected by a release from the Closed Surface Impoundment for all constituents contained in Appendix IX to chapter 14, at least annually, to determine whether additional hazardous constituents are present and, if so, at what concentration(s).
- k. Submit an application for permit modification, within 90 days, to make any appropriate modifications to the evaluation monitoring program, if the Facility determines that the program does not satisfy the requirements of 66264.99.
- l. Submit an application for permit modification to make appropriate changes to the evaluation monitoring program, within 90 days, if the Department determines that the program does not satisfy the requirements of 66264.99.

Violation 10: Failure to Establish a Surface Water Monitoring Program

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.91(a)(1), 66264.97(c)(1), 66264.97(c)(2)(A), 66264.97(c)(2)(B), 66264.97(e)(4), 66264.97(e)(5), 66264.98(b), 66264.98(c), 66264.98(f) and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015, the Facility failed to establish a surface water monitoring system to monitor each surface water body that could be affected by a release from the regulated units in accordance with the provisions of sections cited above. Specifically, the Facility failed to:

- a. Establish a surface water monitoring system to monitor each surface water body that could be affected by a release from the regulated unit. The Facility shall conduct a surface water detection monitoring and response program at the Facility that complies with section 66264.91, 66264.97, 66264.98 and the HWFP. This violation pertains to the general establishment of an adequate surface water detection monitoring and response program. [66264.91(a)(1); 66264.97(c)(1); 66264.97(c)(2)(A); 66264.97(c)(2)(B); 66264.98(b); 66264.98(f) and HWFP, Part

IV.D.5(a)(1) p. 56; Part IV.D.5(b)(2), p.54; Part IV.D.5(b)(4), p.57; Part IV.D.5(b)(6), p.57; Part IV.D.5(b)(7), p.57; Part IV.D.5(b)(8), p.57]

- b. Submit and implement a surface water quality monitoring system sampling and analysis plan to describe the sampling and analytical procedures to ensure that monitoring results provide a reliable indication of water quality. The Facility has submitted inadequate or incomplete *Surface Water Monitoring and Response Plans* on November 28, 2006 and November 19, 2010 which have not been accepted by the Department. [66264.97(e)(4); 66264.97(e)(5) and HWFP, Part IV.D.5(a)(1) p. 56; Part IV.D.5(b)(2), p.54; Part IV.D.5(b)(4), p.57; Part IV.D.5(b)(6), p.57; Part IV.D.5(b)(7), p.57; Part IV.D.5(b)(8), p.57]
- c. Establish a background value pursuant to section 66264.97(e)(11) for each monitoring parameter and constituent of concern. The Facility has submitted inadequate or incomplete *Surface Water Monitoring and Response Plans* on November 28, 2006 and November 19, 2010 which have not been accepted by the Department. [66264.98(c) and HWFP, Part IV.D.5(a)(1) p. 56]

Violation 10 Compliance Schedule: The Facility shall implement the requirements of the HWFP and applicable sections of 22 CCR 66264.90 through 66264.99. Specifically, the following:

- a. Submit a revised Surface Water Monitoring and Response Plan to the Department for the installation of a surface water quality monitoring system that is appropriate for detection monitoring and that complies with the provisions of sections 66264.97 and 66264.98. This is a general requirement to establish an appropriate surface water detection monitoring program. The Facility shall submit a Surface Water Detection Monitoring and Response Plan to the Department within 180 days from the date of this Summary of Violations and implement it within 30 days after Departmental approval/conditional approval and any necessary Department approved permit modifications.
- b. Submit a revised Surface Water Monitoring and Response Plan which includes appropriate sampling and analytical procedures to ensure that monitoring results provide a reliable indication of water quality. The Facility shall submit a revised Surface Water Monitoring and Response Plan to the Department within 180 days from the date of this Summary of Violations and implement it within 30 days after Departmental approval/conditional approval and any necessary Department approved permit modifications.
- c. Submit a revised Surface Water Monitoring and Response Plan which includes appropriate sampling and analytical procedures to establish a background value pursuant to section 66264.97(e)(11) for each monitoring parameter and constituent of concern specified in the Facility permit. The Facility shall submit a

revised Surface Water Monitoring and Response Plan to the Department within 180 days from the date of this Summary of Violations and implement it within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.

Violation 11: Failure to Establish an Unsaturated Zone Monitoring Program

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.91(a)(1), 66264.97(d)(1), 66264.97(d)(2)(A), 66264.97(d)(2)(B), 66264.97(d)(6), 66264.97(e)(4), 66264.97(e)(5), 66264.98(b), 66264.98(c), 66264.98(f) and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to establish an unsaturated zone monitoring system to monitor the unsaturated zone to ensure that a release from the regulated units can be identified in accordance with the provisions of sections cited above. Specifically, the Facility failed to:

- a. Establish an unsaturated zone detection monitoring and response program at the Facility in accordance with section 66264.91, 66264.97, 66264.98 and the HWFP. This violation pertains to the general establishment of an adequate unsaturated zone detection monitoring and response program. [66264.91(a)(1); 66264.97(d)(1); 66264.97(d)(6); 66264.98(b) and HWFP, Part IV.D.3(a), p. 55; Part IV.D.3(b)(1) p. 55; Part IV.D.3(b)(2), p.55; Part IV.D.3(b)(3), p.55; Part IV.D.3(b)(4), p.55; Part IV.D.4(a), p. 55; Part IV.D.4(b)(1) p. 56; Part IV.D.4(b)(2), p.56; Part IV.D.4(b)(3), p.56]
- b. Design and install an unsaturated zone monitoring system with a sufficient number of background and monitoring points to provide the earliest possible detection of a release. The Facility has submitted inadequate or incomplete Soil Pore Monitoring Work Plans dated September 6, 2006 and July 30, 2010 as well as inadequate or incomplete Soil Pore Gas Monitoring and Response Plans dated January 17, 2007 and February 3, 2010, which were not accepted by the Department. [66264.97(d)(2)(A);66264.97(d)(2)(B) and HWFP, Part IV.D.3(a), p. 55; Part IV.D.3(b)(1) p. 55; Part IV.D.3(b)(2), p.55; Part IV.D.3(b)(3), p.55; Part IV.D.3(b)(4), p.55; Part IV.D.4(a), p. 55; Part IV.D.4(b)(1) p. 56; Part IV.D.4(b)(2), p.56; Part IV.D.4(b)(3), p.56]
- c. Submit and implement an unsaturated zone water quality monitoring program sampling and analysis plan to describe the sampling and analytical methods and procedures to accurately measure the concentration of each constituent of concern and concentration or value of each monitoring parameter in soil pore liquid. The Facility has submitted inadequate or incomplete Soil Pore Monitoring Work Plans dated September 6, 2006 and July 30, 2010 as well as inadequate or incomplete Soil Pore Gas Monitoring and Response Plans dated January 17, 2007 and

February 3, 2010 which were not accepted by the Department. [66264.97(e)(4); 66264.97(e)(5); 66264.98(f) and HWFP, Part IV.D.3(a), p. 55; Part IV.D.3(b)(1) p. 55; Part IV.D.3(b)(2), p.55; Part IV.D.3(b)(3), p.55; Part IV.D.3(b)(4), p.55; Part IV.D.4(a), p. 55; Part IV.D.4(b)(1) p. 56; Part IV.D.4(b)(2), p.56; Part IV.D.4(b)(3), p.56]

- d. Establish a background value pursuant to section 66264.97(e)(11) for each monitoring parameter and constituent of concern, to provide a reliable indication of a release from the regulated unit. The Facility has submitted inadequate or incomplete *Soil Pore Monitoring Work Plans* dated September 6, 2006 and July 30, 2010 as well as inadequate or incomplete *Soil Pore Gas Monitoring and Response Plans* dated January 17, 2007 and February 3, 2010 which were not accepted by the Department. [66264.98(c) and HWFP, Part IV.D.3(a), p. 55; Part IV.D.3(b)(1) p. 55; Part IV.D.3(b)(2), p.55; Part IV.D.3(b)(3), p.55; Part IV.D.3(b)(4), p.55; Part IV.D.4(a), p. 55; Part IV.D.4(b)(1) p. 56; Part IV.D.4(b)(2), p.56; Part IV.D.4(b)(3), p.56]

Violation 11 Compliance Schedule: The Facility shall implement the requirements of the HWFP and applicable sections of 22 CCR 66264.90 through 66264.99. Specifically, the following:

- a. Submit revised plans for the design and installation of unsaturated zone soil pore liquid and soil pore gas monitoring systems that are appropriate for detection monitoring and that comply with the provisions of sections 66264.91, 66264.97 and 66264.98. This is a general requirement to establish appropriate unsaturated zone detection monitoring programs. The Facility submitted revised unsaturated zone detection monitoring and response plans to the Department on May 1, 2016 and the Department is in the process of reviewing these documents. Implement the plans within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- b. Submit revised plans for the design and installation of unsaturated zone soil pore liquid and soil pore gas monitoring systems with a sufficient number of background and monitoring points to provide the earliest possible detection of a release. The Facility submitted revised unsaturated zone detection monitoring and response plans to the Department on May 1, 2016 and the Department is in the process of reviewing these documents. Implement the plans within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.
- c. Submit revised plans for the design and installation of unsaturated zone soil pore liquid and soil pore gas monitoring systems to accurately measure the concentration of each constituent of concern and concentration or value of each monitoring

parameter in soil pore liquid and soil pore gas. The Facility submitted revised unsaturated zone detection monitoring and response plans to the Department on May 1, 2016 and the Department is in the process of reviewing these documents. Implement the plans within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.

- d. Conduct sampling pursuant to approved plans to establish unsaturated zone background values pursuant to sections 66264.97(e)(11). The Facility submitted revised unsaturated zone detection monitoring and response plans to the Department on May 1, 2016 and the Department is in the process of reviewing these documents. Implement the plans within 30 days after the Department's approval/conditional approval and any necessary Department approved permit modifications.

Violation 12: Failure to Notify the Department of the Inadequacy of the Groundwater Detection Monitoring Program and apply for Permit Modification

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.98(l) and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to notify the Department by certified mail within seven days that the detection monitoring program did not meet the requirements of section 66264.98. Additionally, within 90 days of such determination, the Facility failed to submit an application for a permit modification to make any appropriate changes to the program. Due to the receding groundwater table from 2000 to 2015, the Facility's detection monitoring system wells became dry and not able to detect releases from the regulated units. Currently, the regulated units are not adequately monitored to detect a release, having only one point of compliance well each and neither unit having a minimum of one background well. The Facility did not notify the Department by certified mail within seven days of such determination; and within 90 days of such determination, submit an application for a permit modification to make any appropriate changes to the detection monitoring program.

Violation 12 Compliance Schedule: Notify the Department by certified mail within seven days of determining that the detection monitoring system is inadequate for detecting releases from the regulated unit. Additionally, within 90 days of such determination, the Facility shall submit an application for a permit modification to make any appropriate changes to the program.

Violation 13: Failure to Notify the Department of Inadequacy of the Groundwater Evaluation Monitoring Program

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.99(h) and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to apply for a permit modification following a determination that the evaluation monitoring system was inadequate in accordance with the provisions of sections cited above. Due to the receding groundwater table from 2000 to 2015, the Facility's evaluation monitoring system wells became dry and not able to evaluate releases from the regulated units. Currently, the regulated units are not adequately monitored to evaluate releases, having no downgradient saturated evaluation wells and only one point of compliance well each. Additionally, neither unit has a minimum of one background well. The Facility did not submit an application for a permit modification to make any appropriate changes to the evaluation monitoring program.

Violation 13 Compliance Schedule: Submit an application for permit modification to make any appropriate changes to the evaluation monitoring program within 90 days, following the determination that the program is inadequate.

Violation 14: Failure to Maintain Monitoring Well Borehole

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.97(b)(6) and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to design groundwater monitoring wells to prevent the borehole from potentially acting as a pathway for contaminant migration into the saturated zone and/or groundwater samples in accordance with the provisions of sections cited above. The sanitary seal for groundwater monitoring wells MW-1 through MW-4 was not present and/or constructed in accordance with the California Well Standards, (Bulletin 74-90) according to submitted boring logs.

Violation 14 Compliance Schedule: Implement the requirements of the HWFP and CCR, title 22, section 66264.97(b)(6). All future groundwater wells constructed for monitoring water quality at the site shall be designed and constructed in accordance with California Well Standards, (Bulletin 74-90) and CalEPA's guidance document entitled Well Design and Construction for Monitoring Groundwater at Contaminated Sites (2014).

Violation 15: Failure to Adequately Maintain Groundwater Monitoring Wells to Enable Collection of Representative Samples

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.97(b)(7) and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to properly maintain groundwater monitoring wells in a manner which allows for the collection of representative groundwater samples in accordance with the provisions of sections cited above. Adequately develop all monitoring wells to enable collection of representative groundwater samples. Groundwater monitoring well MW-2 was allowed to fill with sediment and is not capable of producing representative groundwater samples. [66264.97(b)(7) and HWFP, Part IV.D.2(m)(2)(i), p. 53]

Violation 15 Compliance Schedule: Implement the requirements of the HWFP and applicable sections of 22 CCR 66264.97. The Facility shall maintain all groundwater wells in a manner which precludes sedimentation within the well casing. The Facility shall submit a revised Sampling and Analysis Plan which includes procedures and a schedule for periodic well maintenance to the Department within 180 days of the date of this Summary of Violations and implement it within 30 days after Departmental approval/conditional approval and any necessary Department approved permit modifications.

Violation 16: Failure to Collect the Data Necessary to Conduct Appropriate Statistical Analyses for Surface Water and Unsaturated Zone Monitoring

The Facility violated Health & Safety Code 25202, CCR, title 22, sections 66264.97(e)(6), 66264.97(e)(7), 66264.97(e)(9)(A), 66264.97(e)(10), 66264.98(g), 66264.98(i) and its Hazardous Waste Facility Operation and Post Closure Permit, dated September 15, 2005 (HWFP), in that on or about June 23, 2015 the Facility failed to collect the data necessary to select and conduct appropriate statistical analyses in accordance with the provisions of sections cited above. Specifically, the Facility failed to:

- a. Collect all data necessary for selecting the appropriate statistical method pursuant to relevant portions of sections 66264.97 and 66264.98 and for establishing the background values pursuant to section 66264.97(e)(11) in the unsaturated zone and surface water. This data shall include analytical data obtained during quarterly sampling of all background monitoring points in the unsaturated zone and surface water for a period of one year (unless an alternative is approved by the Department). The Facility has not conducted background sampling for the unsaturated zone or surface water monitoring programs at the Former Raw Materials Storage Area. [66264.97(e)(6) and HWFP, Part IV.D.2(b)(2), p. 44; Part IV.D.2(b)(4), p. 45; Part IV.D.2(c)(1), p.45; Part IV.D.2(c)(2), p.45; Part IV.D.2(c)(4), p. 45; Part IV.D.2(c)(6), p. 47, Part IV.D.2(i), p. 50; Part IV.D.2(i)(2), p. 50; Part IV.D.2(i)(4), p. 50; Part IV.D.2(i)(5), p. 50; Part IV.D.2(i)(6), p. 51]

- b. Propose one of the statistical methods specified in subsection 66264.97(e)(8), based on data collected pursuant to section 66264.97(e)(6) for each constituent of concern and for each monitoring parameter in the unsaturated zone and surface water. The statistical method shall include a detailed description of the criteria to be used for determining statistically significant evidence of any release from the regulated unit to the unsaturated zone and to surface water for determining compliance with the water quality protection standard. The Facility shall demonstrate that use of the proposed statistical methods will be protective of human health and the environment and will comply with the applicable performance standards. If the distributions for the constituents of concern or monitoring parameters differ, more than one statistical method may be needed. The Facility has not conducted appropriate statistical evaluation to determine if a statistically significant release has occurred from the regulated units to the unsaturated zone and to surface water. [66264.97(e)(7); 66264.97(e)(9)(A) and HWFP, Part IV.D.2(b)(2), p. 44; Part IV.D.2(b)(4), p. 45; Part IV.D.2(c)(6), p.47; Part IV.D.2(c)(7), p.47; Part IV.D.2(i), p. 50; Part IV.D.2(i)(4), p. 50, Part IV.D.2(i)(5), p. 50]
- c. Propose and justify the use of a procedure to determine background values for each constituent of concern and for each monitoring parameter specified in the Facility permit, based on the data collected and the statistical methods proposed. These procedures shall be proposed for surface water and the unsaturated zone. The Facility has not conducted background sampling for the unsaturated zone or the surface water monitoring programs. [66264.97(e)(10) and HWFP, Part IV.D.2(b)(2), p. 44; Part IV.D.2(b)(4), p. 45; Part IV.D.2(c), p.45; Part IV.D.2(c)(1), p.45; Part IV.D.2(c)(2), p. 45; Part IV.D.2(c)(4), p. 45, Part IV.D.2(c)(6), p. 47; Part IV.D.2(i)(2), p. 50]
- d. Periodically monitor all constituents of concern specified in the Facility permit and determine whether there is statistically significant evidence of a release for any constituent of concern using the approved statistical procedure. Monitoring pursuant to this subsection shall be conducted at least every five years. The Facility has not conducted appropriate statistical evaluation for all constituents of concern due to the absence of background monitoring points. [66264.98(g) and HWFP, PartIV.D.2(i)(4), p. 50]
- e. Determine whether there is statistically significant evidence of a release to the unsaturated zone or surface water from each monitoring point for any monitoring parameter. If such a finding is made, either by the Facility or the Department, the Facility shall comply with the provisions required in response to statistically significant evidence of a release from the regulated units. The Facility has not conducted appropriate statistical evaluation for monitoring parameters due to the absence of background monitoring points for the unsaturated zone and surface water. [66264.98(i) and HWFP, Part IV.D.2(b)(4), p. 45; Part IV.D.2(c)(6), p.47; Part

IV.D.2(c)(7), p. 47; Part IV.D.2(i), p. 50, Part IV.D.2(i)(4), p. 50; Part IV.D.2(i)(5), p. 50]

Violation 16 Compliance Schedule: The Facility shall implement the requirements of the HWFP and applicable sections of 22 CCR 66264.90 through 66264.99. Specifically, the following:

- a. Submit a revised plan to collect all data necessary to select an appropriate statistical method and establish background values to evaluate potential releases from the regulated units to surface water. The data shall include, at a minimum, quarterly data from properly designed and installed background monitoring points for a period of one year. The Facility submitted revised unsaturated zone detection monitoring and response plans to the Department on May 1, 2016 and the Department is in the process of reviewing these documents. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary permit modifications. Furthermore, the Facility shall submit a revised water quality monitoring and response plan for surface water to the Department within 180 days of the date of this Summary of Violations and implement it within 30 days after Departmental approval and any necessary Department approved permit modifications.
- b. Submit a revised plan to propose one of the statistical methods specified in subsection 66264.97(e)(8) for each constituent of concern and for each monitoring parameter to determine compliance with the water quality protection standard for surface water. The Facility submitted revised unsaturated zone detection monitoring and response plans to the Department on May 1, 2016 and the Department is in the process of reviewing these documents. Implement the plan within 30 days after the Department's approval/conditional approval and any necessary permit modifications. Furthermore, the Facility shall submit a revised water quality monitoring and response plan for surface water to the Department within 180 days of the date of this Summary of Violations and implement it within 30 days after Departmental approval and any necessary Department approved permit modifications.
- c. Submit a revised plan to propose and justify a procedure for determining a background value for each constituent of concern and for each monitoring parameter specified in the Facility permit for surface water. The Facility shall submit a revised water quality monitoring and response plan for surface water to the Department within 90 days of the date of this Summary of Violations. Implement the plans within 30 days after the Department's approval/conditional approval and any necessary permit modifications. Furthermore, the Facility submitted revised unsaturated zone detection monitoring and response plans to the Department on May 1, 2016 and the Department is in the process of reviewing these documents.

- d. Conduct monitoring pursuant to approved plans for all constituents of concern such that a statistical evidence of a release can be determined at the frequency specified in the Facility permit and at least a minimum of once every five years. The Facility submitted revised groundwater and unsaturated zone detection monitoring and response plans to the Department on May 1, 2016 and the Department is in the process of reviewing these documents. Implement the plans within 30 days after the Department's approval/conditional approval and any necessary permit modifications. Furthermore, the Facility shall submit a revised water quality monitoring and response plan for surface water to the Department within 90 days of the date of this Summary of Violations and implement it within 30 days after Departmental approval and any necessary Department approved permit modifications.
- e. Conduct monitoring pursuant to approved plans at each monitoring point to determine whether there is statistically significant evidence of a release from the regulated units for any monitoring parameter. If such a finding is made, comply with the provisions required in response to a statistically significant evidence of a release from the regulated unit. The Facility submitted revised unsaturated zone detection monitoring and response plans to the Department on May 1, 2016 and the Department is in the process of reviewing these documents. Implement the plans within 30 days after the Department's approval/conditional approval and any necessary permit modifications. Furthermore, the Facility shall submit a revised water quality monitoring and response plan for surface water to the Department within 180 days of the date of this Summary of Violations and implement it within 30 days after Departmental approval and any necessary Department approved permit modifications.