

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2006-XXXX
CALIFORNIA WATER CODE SECTION 13267

FOR

CHEMURGIC AGRICULTURAL CHEMICALS, INC.
GROUNDWATER TREATMENT SYSTEM
STANISLAUS COUNTY

This Monitoring and Reporting Program (MRP) incorporates requirements for monitoring the progress of the groundwater treatment system. This MRP is issued pursuant to California Water Code Section 13267. Chemurgic Agricultural Chemicals, Inc. is required to comply with this MRP. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. The groundwater treatment system consists of two groundwater extraction wells, a series of granulated activated carbon vessels and discharge to an infiltration trench within the capture zone of the extraction wells.

INFLUENT MONITORING

Influent samples shall be collected after the last connection before the extracted groundwater enters the treatment process. Influent samples should be representative of the volume and nature of the influent. Time of collection of a grab sample shall be recorded. Influent sampling shall commence the month following a detection of a benzene hexachloride (BHC) isomer in the effluent of the lead treatment vessel exceeding or equal to 30 ug/l. Monthly influent sampling shall continue until the lead treatment vessel is replaced pursuant to Provision C.3. The following shall constitute the influent monitoring program:

INFLUENT MONITORING SCHEDULE

Constituents	EPA Method	Practical Quantitation Limit¹	Sampling Frequency
alpha-benzene hexachloride			
beta-benzene hexachloride	8081A	0.05 ug/l	monthly ²
delta-benzene hexachloride			
gamma-benzene hexachloride			

¹ All concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as trace.

² Monthly sampling of influent shall commence whenever the concentration of any listed BHC isomer exceeds 30 ug/l in the effluent of the lead treatment vessel and monthly monitoring shall continue until the lead vessel is replaced.

EFFLUENT MONITORING

Effluent samples from the lead carbon adsorption vessel shall be collected after exiting the lead vessel, and effluent samples from the last vessel shall be collected from the outlet prior to discharge to the infiltration trench. Effluent samples should be representative of the volume and nature of the discharge. Samples collected from the outlet prior to discharge to the infiltration trench will be considered adequately composited. Time of collection of a grab sample shall be recorded. Metered flow measurements shall be continuous and cumulative. Effluent monitoring shall include at least the following:

EFFLUENT MONITORING SCHEDULE

Constituents	EPA Method	Practical Quantitation Limit ¹	Sample Station	Sampling Frequency
pH	--	--	last vessel	Annually ²
alpha-BHC beta-BHC delta-BHC gamma-BHC	8081A	0.05 ug/l	lead vessel and last vessel	Monthly
Chlorobenzene 1,2-dichlorobenzene 1,4-dichlorobenzene	8021B	0.5 ug/l	lead vessel and last vessel last vessel	Monthly ³ Annually ²

¹ All concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as trace.

² Annually in the fourth quarter (October-December)

³ If chlorobenzene compounds are detected above the Practical Quantitation Limit in MW-507A, then these compounds shall be sampled monthly from the lead and last vessels.

GROUNDWATER MONITORING

If new monitoring wells are considered for installation at any time in the future, prior to construction, plans and specifications for groundwater monitoring wells shall be submitted to Board staff for review and approval. After construction, new wells shall be sampled and analyzed for the constituents below and added to the monitoring program.

Prior to sampling, the wells shall be purged of at least three well volumes until measurement of pH, temperature, turbidity, and electrical conductivity have stabilized, indicating that the samples are representative of groundwater immediately surrounding the well screen.

Chemurgic has 15 monitoring wells (PZ-101, MW-501, MW-502, MW-502A, MW-503, MW-503A, MW-504, MW-505, MW-507A, MW-508 through MW-513) established throughout the plume. Not all these wells are subject to the monitoring and reporting program. Chemurgic also monitors two domestic wells (CPW and 6730 HR) and one Irrigation District well (TID-7). The groundwater monitoring

program for the monitoring wells listed below, and any additional wells installed subsequently, shall include the following:

GROUNDWATER MONITORING SCHEDULE				
Constituents	EPA Method	Practical Quantitation Limit ¹	Sampling Frequency	Wells to be Monitored
Depth to Groundwater	--	0.01 foot	Annually ²	PZ-101, MW-501, MW-502, MW-503, MW-504, MW-505, MW-507A, MW-509, MW-510, MW-511, MW-512, and MW-513
alpha-benzene hexachloride beta-benzene hexachloride delta-benzene hexachloride gamma-benzene hexachloride	8081A	0.05 ug/l	Annually ²	MW-501, MW-502, MW-504, MW-505, MW-507A, MW-510, MW-513, CPW, 6730 HR, TID-7
Chlorobenzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene	8021B	0.5 ug/l	Annually ²	MW-507A ³ , MW-513

¹ All concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as trace.

² Annually in the fourth quarter (October-December).

³ Monitoring well MW-507A shall be sampled for chlorobenzene compounds prior to system start-up.

REPORTING

When reporting the data, the Discharger shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to illustrate clearly the compliance with Waste Discharge Requirements. Reports describing the treatment system operation shall arrange benzene hexachloride data to illustrate the ratio of effluent to influent concentration at the lead vessel.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional or their subordinate and signed by the registered professional.

Monthly Data Submittals

A data table displaying the monthly influent and effluent results, corresponding carbon replacement, if applicable, a cover letter discussing any system downtime or operational problems, if any, shall be transmitted to Regional Board staff by the **20th day of the following month**. Monthly data submittals may be transmitted via paper copy or via email.

Annual Monitoring Reports

An Annual Report shall be submitted to the Board by **1 February** of each year. This report shall contain the results of the annual groundwater sampling program, an evaluation of the effectiveness, progress of the remediation, and recommendations for improving the effectiveness of the remediation system. The Annual Report shall include the following in tabular form: water quality analytical data, depth to groundwater and groundwater elevation, cumulative quantity of groundwater treated, and an estimate of mass of constituents removed.

The results of any monitoring done more frequently than required at the locations specified in the MRP also shall be reported to the Board.

The Discharger shall implement the above monitoring program as of the date of the Order.

Ordered by: _____
Executive Officer

(Date)

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