
Central Valley Regional Water Quality Control Board

10 March 2016

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NOTICE OF APPLICABILITY (NOA)

FOR WASTE DISCHARGE REQUIREMENTS FOR DISCHARGE TO SURFACE WATERS OF GROUNDWATER FROM CLEANUP OF PETROLEUM FUEL POLLUTION (GENERAL ORDER); ORDER R5-2013-0075; NPDES PERMIT NO. CAG915001; PHILLIPS 66 COMPANY, GROUNDWATER TREATMENT SYSTEM ADJACENT TO THE CALIFORNIA AQUEDUCT, MERCED COUNTY

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) office received a Report of Waste Discharge application on 8 February 2016 from AECOM on behalf of Phillips 66 Company (hereafter Discharger) for a groundwater treatment system adjacent to the California Aqueduct (Facility) in Merced County. Based on the application packet and subsequent information submitted by the Discharger, Central Valley Water Board staff determined that the project meets the required conditions for approval under the General Order. The Facility is hereby assigned General Order No. **R5-2013-0075-022**, NPDES Permit No. **CAG915001**, and WDID # **5C242032001**. Please reference your General Order No., R5-2013-0075-022, in your correspondences and submitted documents.

The enclosed General Order may also be viewed at the following web address:

http://www.swrcb.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0075.pdf

You are urged to familiarize yourself with the contents of the entire document. The General Order prescribes mandatory discharge monitoring and reporting requirements. The Facility shall be operated in accordance with the requirements contained in this NOA, the General Order, and the information submitted by the Discharger.

FACILITY DESCRIPTION

In 1985, a leak was discovered in a crude oil pipeline approximately 6.5 miles southwest of Gustine in Merced County. The leak was adjacent to the California Aqueduct, approximately nine miles north of Butts Road. As part of the remediation, a groundwater cleanup system was constructed on property owned by the California Department of Water Resources (DWR). The system consisted of an oil/water separator, an oil recovery tank, a granular activated carbon (GAC) feed tank, a GAC forwarding pump, a surge tank, and two 6,000 pound GAC vessels.

Treated groundwater was discharged to an unnamed ephemeral drainage course that crosses the California Aqueduct roughly 850 feet south of the treatment system.

In August 1997, a landslide collapsed a portion of the west-side section of the California Aqueduct thereby allowing an unknown quantity of separate phase hydrocarbons to migrate into the California Aqueduct. In response, an interceptor trench was constructed to capture and remove dissolved hydrocarbons and free petroleum from groundwater and prevent impacted groundwater from migrating into the California Aqueduct when DWR lowered the water level in the California Aqueduct. Beginning in early 2000, the operation of the treatment system switched from full-time operation to stand-by mode (i.e., operating one day per month to ensure the system functioned properly). The Facility was previously enrolled under the General Order (R5-2013-0075-006) and, upon the Discharger's request, Central Valley Water Board staff terminated coverage under the General Order on 21 April 2014.

AECOM, under contract with the Discharger, is implementing a Corrective Action Plan (CAP) at the site. The CAP consists of two phases. Phase I consisted of the removal of the interceptor trench and construction of a cutoff wall. According to the Discharger's application, Phase I was completed in December 2015. Phase II will be implemented in conjunction with DWR's planned slump repair activities beginning in April 2016. DWR activities will consist of removal of a small portion of pipeline, excavation of impacted soils and backfilling with clean soils, and decommissioning the existing groundwater treatment system.

Prior to decommissioning, the Discharger will modify the treatment system for temporary operation during DWR's activities. During the slump repair activities, DWR will pump groundwater into aboveground storage tanks. According to the Discharger's application, if DWR determines the pumped groundwater is "impacted," the Discharger will pump the groundwater through the treatment system.

The treatment system will consist of a particulate bag filter and two 6,000 pound GAC vessels (operated in series). Treated groundwater will be pumped to the aboveground effluent storage tanks. The Discharger's application states if analytical data show treated groundwater meets applicable effluent limitations, the treated groundwater will be discharged from the storage tanks to the ephemeral drainage course. The Discharger's application notes that the treatment system will be modified to bypass the previously installed oil/water separator, oil recovery tank, and surge tank.

The outfall from the treatment system to the ephemeral drainage course is at latitude and longitude of 37°10'10" north and 121°03'51" west (same discharge point permitted previously under the General Order). From the California Aqueduct, the drainage course flows north, crosses Interstate 5, and flows into a pond on the south side of the Delta Mendota Canal.

CALIFORNIA TOXICS RULE / STATE IMPLEMENTATION POLICY MONITORING

The General Order incorporates the requirements of the California Toxics Rule (CTR) and the State Water Resources Control Board's (State Water Board) *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, 2005, also known as the State Implementation Policy (SIP). Screening levels for CTR constituents and other constituents of concern are found in Attachment B and C of the General Order.

To satisfy the wastewater monitoring requirements, the Discharger provided 1) historic influent and effluent monitoring data for the Facility and 2) analytical results from a sample collected at a nearby monitoring well (MW-24) for the pollutants required in Attachment B and C of the General Order. Historically, groundwater was extracted from monitoring wells TS-40 and TS-20, which were located at the interceptor trough, and pumped through the treatment system. The Discharger contends that historic monitoring data for these wells are representative of the proposed influent to the Facility since these wells were located in an area influenced by the aqueduct (i.e., contaminated groundwater in this area is diluted with water seepage from the California Aqueduct) and closer to the proposed project location. These wells were destroyed as part of the Phase I of the CAP. Therefore, the Discharger monitored for the required pollutants at monitoring well MW-24 to satisfy section D of the General Order Application Requirements (Attachment G). Review of the water quality data in comparison to the screening levels showed that the CTR constituent concentrations in the groundwater do not exceed the applicable screening levels in Attachment B and C of the General Order.

EFFLUENT LIMITATIONS

Effluent limitations are specified in Section V. Effluent Limitations and Discharge Specifications of the General Order. The following effluent limitations are applicable to this discharge and are contained in Section V. of the General Order:

1. The final effluent limitations for petroleum constituents listed in section V.A.1:

Table 3. Effluent Limitations – Petroleum Constituents

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Priority Pollutants			
Benzene	µg/L	--	0.35
Ethylbenzene	µg/L	--	0.5
Ethylene Dichloride	µg/L	0.38	0.5
Naphthalene	µg/L	--	5.0
Toluene	µg/L	--	0.5
Non-conventional Pollutants			
Di-isopropyl Ether	µg/L	--	5
Ethylene Dibromide	µg/L	0.05	0.10
Ethyl Tertiary Butyl Ether	µg/L	--	5
Methanol	µg/L	--	20
Methyl Tertiary Butyl Ether	µg/L	--	1.0
Carcinogenic PAHs ¹	µg/L	0.0044	0.0088
Tertiary Amyl Methyl Ether	µg/L	--	1.0
Tertiary Butyl Alcohol	µg/L	--	10
Total Petroleum Hydrocarbons (Gasoline Range)	µg/L	--	50
Total Petroleum Hydrocarbons (Diesel Range)	µg/L	--	50
Xylene ²	µg/L	--	0.5

¹ Applies to the sum of benzo[a]pyrene, benz[a]anthracene, benzo[b]fluoranthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenz[a,j]acridine, dibenz[a,h]acridine, dibenz[a,h]anthracene, 7Hdibenzo[c,g]carbazole, dibenzo[a,e]pyrene, dibenzo[a,h]pyrene, dibenzo[a,i]pyrene, dibenzo[a,l]pyrene, indeno[1,2,3-cd]pyrene, 5-methylchrysene, 1-nitropyrene, 4-nitropyrene, 1,6-dinitropyrene, 1,8-dinitropyrene, 6-nitrocrysene, 2-nitrofluorene, and chrysene.

² Applies to the sum of o-xylene, m-xylene, and p-xylene.

2. The following final effluent limitations for lead, as specified in section V.A.1.:

Table 4. Effluent Limitations – Petroleum Constituents

Parameter	Units	Average Monthly	Maximum Daily
Lead, Total Recoverable	µg/L	0.40	0.80

3. The following final effluent limitations for acute toxicity specified in section V.A.3:

3. Final Effluent Limitations – Acute Whole Effluent Toxicity.

Survival of aquatic organisms in 96-hour bioassays of undiluted waste for all discharges to surface waters of groundwater from cleanup of petroleum fuel pollution shall be no less than:

- a. 70%, minimum for any one bioassay; and*
- b. 90%, median for any three consecutive bioassays.*

4. The final effluent limitations for salinity specified in section V.A.4:

4. Final Effluent Limitations – Salinity

The discharger shall submit with the application a report concerning:

- a. How the discharge will comply with Receiving Water Limitation VI.A.4 (discharge shall not adversely affect beneficial uses) and any numeric receiving water limitations for salinity prescribed in the Basin Plans, and*
- b. A Salinity Evaluation and Minimization Plan as described in Special Provision VII.C.3.a by which the Discharger will minimize any increase in effluent salinity as the result of treatment of the wastewater.*

5. The final effluent limitations for pH specified in section V.B.4.

4. Final Effluent Limitations – Discharges within the Sacramento and San Joaquin River Basins (Except Goose Creek)

The pH of all discharges of groundwater from cleanup of petroleum fuel pollution within the Sacramento and San Joaquin River Basins (except Goose Creek) shall at all times be within the range of 6.5 and 8.5.

MONITORING AND REPORTING

Monitoring and reporting requirements are contained in Attachment E – Monitoring and Reporting Program (MRP) of the General Order. The following monitoring requirements are applicable to this discharge and are contained in Attachment E. All other requirements in Attachment E are applicable. The MRP requires submittal of quarterly self-monitoring reports, which are to include the results of all monitoring specified in the MRP and this NOA. The Discharger shall notify the Central Valley Water Board **24 hours before the start of the discharge** as required by Section X.A.1. of the MRP

The Discharger is required to comply with the following monitoring requirements:

Monitoring Locations. The Discharger shall monitor the following locations when discharging to the unnamed ephemeral drainage course:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	<i>Shall be located after the last connection before the wastes enter the treatment process.</i>
001	EFF-001	<i>Shall be located after the last connection through which wastes can be admitted into the outfall.</i>
--	RSW-001	<i>Unnamed ephemeral drainage course, approximately 200 feet upstream of Discharge Point 001, or the first accessible sampling point upstream of this location.</i>
--	RSW-002	<i>Unnamed ephemeral drainage course, approximately 200 feet downstream of Discharge Point 001, or the first accessible sampling point downstream of this location.</i>

Effluent Monitoring. The Discharger shall monitor the treated groundwater from cleanup of petroleum fuel pollution at Monitoring Location EFF-001 as required in Section IV.A.1. of the MRP (Table E-3). This NOA does not require the Discharger to conduct additional effluent monitoring for any constituents listed in Section IV.A.2. (Table E-4) of the MRP.

GENERAL INFORMATION AND REQUIREMENTS

Discharge of material other than what is described in this NOA is prohibited. The required annual fee (as specified in the annual billing sent by the State Water Board) shall be submitted **until this NOA is officially terminated**. The Discharger must notify the Central Valley Water Board in writing when the discharge has ceased and coverage under the General Order is no longer necessary. If a timely written request is not received, the Discharger will be required to pay additional annual fees as determined by the State Water Board.

ENFORCEMENT

Failure to comply with the General Order may result in enforcement actions, which could include civil liability. Effluent limitation violations are subject to discretionary penalties of up to \$10,000 per violation and to a Mandatory Minimum Penalty (MMP) of \$3,000 per violation. In addition, late monitoring reports may be subject to MMPs or discretionary penalties of up to \$1,000 per day late. When discharges do not occur during a quarterly monitoring period, the Discharger must still submit a quarterly monitoring report indicating that no discharge occurred to avoid being subject to enforcement actions.

COMMUNICATION

At any time during the term of the General Order, the State Water Board or the Central Valley Water Board may notify you to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). Until such time, all SMRs shall be emailed to **CentralValleyFresno@waterboards.ca.gov**. The subject line shall include the

title of the monitoring report (e.g., "2016 2nd Quarterly SMR") and the Facility name. The body of the email shall include the Discharger's name, Facility name, and Order number R5-2013-0075-022.

All Questions regarding compliance and enforcement shall be directed to Warren Gross of the Central Valley Water Board's Compliance and Enforcement Unit, who can be reached at (559) 445-5128 or Warren.Gross@waterboards.ca.gov.

Questions regarding the permitting aspects of the General Order, and written notification for termination of coverage under the General Order, shall be directed to Alex Mushegan of the Central Valley Water Board's NPDES Permitting Unit, who can be reached at (559) 488-4397 or Alexander.Mushegan@waterboards.ca.gov.

All other documents and correspondence, such as responses to inspections, written notifications, and documents submitted to comply with this NOA and the General Order shall be submitted in portable document format (PDF) and emailed to CentralValleyFresno@waterboards.ca.gov. The subject line shall include "NPDES Permitting Unit" and the Facility name. The body of the email shall include the Discharger's name, Facility name, and Order number R5-2013-0075-022. Documents that are 50 megabytes (MB) or larger shall be transferred to a CD, DVD, or flash drive and mailed to our office at 1685 "E" Street, Fresno, California 93706. Please carbon copy Alex Mushegan, at Alexander.Mushegan@waterboards.ca.gov, on all emails.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 days from the date of this NOA, except that if the thirtieth day following the date of this NOA falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the following business day.

Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.



for Pamela C. Creedon
Executive Officer

Enclosure: General Order R5-2013-0075 (Discharger only)

cc: David Smith, USEPA Region IX, WTR-2-3, San Francisco (via email)
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