

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2007-0716

FOR  
BIG WEST OF CALIFORNIA, LLC  
BAKERSFIELD REFINERY  
KERN COUNTY

This Order is issued to Big West of California, LLC, hereafter referred to as Big West and Discharger, based on provisions of California Water Code section 13304, which authorizes the California Regional Water Quality Control Board, Central Valley Region (hereafter Regional Water Board) to issue a Cleanup and Abatement Order (Order), and on Water Code section 13267, which authorizes the Regional Water Board to require preparation and submittal of technical and monitoring reports.

The Executive Officer finds, with respect to the Discharger's acts or failure to act, the following:

**PROPERTY OWNERSHIP AND OPERATIONS**

1. Big West owns and operates a refinery on properties it owns at 6451 Rosedale Highway in Bakersfield, California. Big West purchased the refinery from Shell Oil Products US in March 2005. Area 1 of the refinery facility was developed by the Mohawk Oil Company in 1932 and includes the Mohawk Tank Farms in the southeast portion of the facility. Past releases of liquid petroleum hydrocarbons (LPH) throughout the facility, including Mohawk Tank Farms, impact soil and polluted groundwater. Past impacts have been investigated and are undergoing remediation by Big West and another responsible party.

**BACKGROUND**

2. Liquid petroleum hydrocarbons have been present in monitoring well BWM-5U, which monitors the upper aquifer zone in the northwest corner of the Mohawk Tank Farm, for some time. Prior to 1 June 2007, approximately 0.6 to 0.7 feet of LPH was routinely detected in BWM-5U. Big West reported measuring approximately 22 feet of LPH in BWM-5U on 12 June 2007. Greater than 34 feet of LPH was measured in BWM-5U on 14 June 2007. Laboratory analysis of the LPH indicates it most likely is crude oil, but is not a direct match with any LPH stored or conveyed within the facility. Several pipelines are near monitoring well BWM-5U, including a Reformer Feed pipeline and a crude pipeline. The amount of LPH in BWM-5U and the rate of increase of LPH in that well indicate a continuing and significant release of LPH in close proximity to BWM-5U. The only known sources of LPH in the vicinity of BWM-5U are the nearby pipelines, which are also owned and operated by Big West.

**AUTHORITY – LEGAL REQUIREMENTS**

3. Section 13304(a) of the California Water Code provides that:

*“Any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirements or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the regional board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.”*

4. Section 13267(b)(1) of the California Water Code provides that:

*“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”*

5. Section 13304(c)(1) of the California Water Code provides that:

*“. . . the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that government agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial actions. . . .”*

6. The State Water Resources Control Board (hereafter State Board) has adopted Resolution No. 92-49, the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. This Policy sets forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Board Resolution 68-16, the *Statement of Policy With Respect to Maintaining High Quality of Waters in California*.

Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, California Code of Regulations (CCR) Section 2550.4. Any alternative cleanup level to background must: (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Board.

7. Chapter IV of the Basin Plan contains the *Policy for Investigation and Cleanup of Contaminated Sites*, which describes the Regional Water Board's strategy for managing contaminated sites. This strategy is based on Water Code Sections 13000 and 13304, the Title 27, Division 2, Subdivision 1 regulations, and State Water Board Resolution Nos. 68-16 and 92-49. The strategy includes site investigation, source removal or containment, information required to be submitted for consideration in establishing cleanup levels, and the basis for establishment of soil and groundwater cleanup levels.
8. The State Board adopted the *Water Quality Enforcement Policy*, which states in part: "*At a minimum, cleanup levels must be sufficiently stringent to fully support beneficial uses, unless the RWQCB allows a containment zone. In the interim, and if restoration of background water quality cannot be achieved, the CAO should require the discharger(s) to abate the effects of the discharge. Abatement activities may include the provision of alternate water supplies.*" (*Enforcement Policy*, p. 19.)
9. The Water Board's *Water Quality Control Plan for the Tulare Lake Basins, Second Division, revised in 2004* (hereafter Basin Plan) designates beneficial uses of the waters of the State, establishes water quality objectives (WQOs) to protect these uses, and establishes implementation policies to implement WQOs. The beneficial uses of the groundwater beneath the site include domestic, municipal, industrial, and agricultural supply.
10. The wastes detected at the site are not naturally occurring, and contain known human carcinogens. Pollution of groundwater with these wastes impairs or threatens to impair the beneficial uses of the groundwater.
11. Water quality objectives listed in the Basin Plan include numeric WQOs, e.g., state drinking water maximum contaminant levels (MCLs), and narrative WQOs, including the narrative toxicity objective and the narrative tastes and odors objective for surface and groundwater. Chapter IV of the Basin Plan contains the *Policy for Application of Water Quality Objectives*, which provides that "[w]here compliance with narrative objectives is required (i.e., where the objectives are applicable to protect specified beneficial uses), the Water Board will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives." The numerical limits that implement the Basin Plan

WQOs for the constituents that may reasonably expected to be present in the LPH floating on and dispersed in groundwater in and around monitoring well BWM-5U are listed in the following table.

<b>Constituent</b>	<b>Limits</b>	<b>WQO</b>	<b>Reference</b>
Total Petroleum Hydrocarbons as Gasoline	5 µg/l	Tastes and Odors	McKee & Wolf, <i>Water Quality Criteria</i> , SWRCB, p. 230
Total Petroleum Hydrocarbons as Diesel	56-140 µg/l	Toxicity	USEPA Superfund Provisional Reference Dose
Benzene	0.15 µg/l	Toxicity	California Public Health Goal, (OEHHA)
Toluene	42 µg/l	Taste and Odor	Federal Register, Vol. 54, No. 97
Ethylbenzene	29 µg/l	Taste and Odor	Federal Register, Vol. 54, No. 97
Xylene	17 µg/l	Taste and Odor	Federal Register, Vol. 54, No. 97

ug/L= micrograms per liter

12. The constituents listed in Finding No. 11 are wastes as defined in California Water Code Section 13050(d). Groundwater from historic releases exceeds the WQOs for many, if not all, of the above constituents. The exceedance of applicable WQOs constitutes pollution as defined in California Water Code Section 13050(l)(1). The addition of the substantial amount of LPH described above has exacerbated the pollution.

### **DISCHARGER LIABILITY**

13. As described in the above Findings, the Discharger is subject to an order pursuant to Water Code section 13304 because the Discharger is the owner and operator of the refinery where the wastes have come to be located, and has therefore caused or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution or nuisance. The condition of pollution is a priority violation and issuance or adoption of a cleanup or abatement order pursuant to Water Code Section 13304 is appropriate and consistent with policies of the Water Board. If additional parties are determined to be responsible for this discharge of waste, this order may be amended and issued to those parties and the Discharger.
14. This Order requires abatement, investigation and containment, and cleanup of the release of LPH in compliance with the Water Code, the applicable Basin Plan, Resolution 92-49, and other applicable plans, policies, and regulations.
15. As described in the above Findings, the Discharger is subject to an order pursuant to Water Code section 13267 to submit technical reports because existing data and information about the site indicate that waste has been discharged, is discharging, or is

suspected of discharging, at the property, which is or was owned and/or operated by the Discharger named in this Order. The technical reports required by this Order are necessary to assure compliance with Section 13304 of the Water Code, including prompt identification and abatement of the source and investigation and cleanup the affected area to protect the beneficial uses of waters of the state, to protect against nuisance, and to protect human health and the environment.

16. If the Discharger fails to comply with this Order, the Executive Officer may request the Attorney General to petition the superior court for the issuance of an injunction.
17. If the Discharger violates this Order, the Discharger may be liable civilly in a monetary amount provided by the Water Code.
18. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), pursuant to Title 14 CCR Section 15321(a)(2). The implementation of this Order is also an action to assure the restoration of the environment and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), in accordance with Title 14 CCR, Sections 15308 and 15330.
19. Any person affected by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Title 23 CCR Sections 2050-2068. The regulations may be provided upon request and are available at [www.swrcb.ca.gov](http://www.swrcb.ca.gov). The State Board must receive the petition within 30 days of the date of this Order.

### **REQUIRED ACTIONS**

**IT IS HEREBY ORDERED** that, pursuant to California Water Code Section 13000, Section 13304 and Section 13267, the Discharger shall:

1. Abate the discharge of petroleum hydrocarbons to soil and groundwater forthwith, and investigate the discharge(s) of waste, clean up the waste, and abate the effects of the waste, forthwith, resulting from the subject release, in conformance with State Board Resolution No. 92-49 *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* and with the Water Board's *Water Quality Control Plan for the Tulare Lake Basin* (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV). "Forthwith" means as soon as is reasonably possible without risk to health and safety. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.

### **DISCHARGE ABATEMENT**

2. Take all practicable steps to identify the source and abate the discharge from the source as soon as can be accomplished in a safe manner. Take all practical steps to contain the spread of the LPH. Daily updates need to be provided by 10 AM each day to all appropriate regulatory agencies on the status of the discharge, and the identification and repairs to the source of the discharge. The updates need to be provided until the source of the discharge is located and repaired and the discharge is stopped. A written report shall be submitted within 5 days of the identification of the source of the discharge and shall include the following: the location and nature of the source; the chemical makeup of the waste discharged, and an estimate of the total quantity discharged; and a description of repairs completed and/or planned, and a schedule for any future needed repairs. Daily updates to the Regional Water Board shall be provided by contacting the following by e-mail: Michelle Rogow, US EPA, [rogow.michelle@epa.gov](mailto:rogow.michelle@epa.gov); Loren Harlow, Regional Water Board, [LHarlow@waterboards.ca.gov](mailto:LHarlow@waterboards.ca.gov); Jan Alfson, Regional Water Board, [jalfson@waterboards.ca.gov](mailto:jalfson@waterboards.ca.gov); State of California Office of Emergency Services, [warning.center@oes.ca.gov](mailto:warning.center@oes.ca.gov), Joe Canas, Kern County Environmental Health Department, [joec@co.kern.ca.us](mailto:joec@co.kern.ca.us); and Brian Pitts, Kern County Environmental Health Department, [brianp@co.kern.ca.us](mailto:brianp@co.kern.ca.us).

#### SITE ASSESSMENT

3. By **22 June 2007**, submit a *workplan for assessment of the lateral extent of liquid petroleum hydrocarbons and the lateral and vertical extent of impacts to soil and groundwater resulting from the subject release (Workplan)*. The workplan shall include sufficient, appropriately located soil borings, monitoring wells, soil samples, product samples, and groundwater samples, and any other necessary data to assess the extent of the subject release. The work plan shall include tasks for removal of all LPH on groundwater resulting from the subject release.
4. Within **14 days** of staff concurrence with the *Workplan*, but no later than **23 July 2007**, implement the work plan in accordance with the approved time schedule, which shall become part of this Order. Removal of LPH shall continue until no significant LPH remains.
5. Submit monthly written updates on the implementation of the work plan including the amount of LPH remaining on groundwater and the amount of LPH removed.
6. Submit results of the site investigation in a *Preliminary Investigation and Evaluation Report (PIER)* in accordance with the approved time schedule, **but no later than 22 October 2007**. The *(PIER)* shall include a summary of the results of the investigation including maps showing the location of the release and the extent of the impacts to soil and groundwater, analytical results, and including conclusions and recommendations. The report shall also include, if needed, a second Workplan for additional investigation and removal of LPH. If additional investigation is necessary, the Workplan shall include a time schedule for completing the work and submitting the results.

7. Within **30 days** of staff concurrence with the Workplan for additional site assessment, and in accordance with the approved time schedule, implement the Workplan.
8. Upon defining the extent of wastes, **but no later than 15 January 2008**, submit a report summarizing the results of assessment of LPH in soil and on and in groundwater in the subject locale. The report shall include information from the implementation of the Workplan(s) and sufficient detail on the nature and extent of the release to provide a basis for future decisions regarding subsequent cleanup and abatement actions.

### **GROUNDWATER MONITORING**

9. Add all existing monitoring wells in the vicinity of the subject release and any monitoring wells added during the subject assessment to the routine groundwater monitoring events conducted at the site. Groundwater monitoring of the above wells shall be conducted at a minimum on a quarterly basis but shall be completed frequently enough to demonstrate the effective removal of LPH.
10. Submit written **Quarterly Status Reports** by the 1<sup>st</sup> day of the second month after each calendar quarter.

### **GENERAL REQUIREMENTS**

11. As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, have appropriate reports prepared by, or under the supervision of, a registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Discharger shall include a cover letter signed by the Discharger, or an authorized representative, certifying under penalty of law that the signer has examined and is familiar with the report and that to their knowledge, the report is true, complete, and accurate. The Discharger shall also state if they agree with any recommendations/proposals and whether they approved implementation of said proposals.
12. Notify Water Board staff at least three working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.
13. Obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order prior to beginning the work.
14. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient remediation has been accomplished to fully comply with this Order and this Order has been either amended or rescinded in writing.

15. Optimize remedial systems as needed to improve system efficiency, operating time, and/or waste removal rates, and report on the effectiveness of the optimization in the quarterly reports.
16. Maintain a sufficient number of monitoring wells to completely define and encompass the above waste plume(s). If groundwater monitoring indicates the waste in groundwater has migrated beyond laterally or vertically defined limits during the quarter, then the quarterly monitoring reports must include a work plan and schedule, with work to begin within thirty days of Water Board staff approval, to define the new plume limits.
17. Submit electronic copies of all reports and analytical results are to be submitted over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at <http://geotracker.swrcb.ca.gov>. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Board's web site.
18. If, for any reason, the Discharger is unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Executive Officer, the Discharger may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. An extension may be granted by revision of this Order or by a letter from the Executive Officer.
19. If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.
20. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action in accordance with Section 13320 of the California Water Code and Title 23, California Code of Regulations, Section 2050. The petition must be received by the State Board, Office of Chief Counsel, P. O. Box 100 Sacramento, 95812 within 30 days of the date of this order. Copies of the law and regulations applicable to filing petitions will be provided upon request.
21. Any person affected by this action of the Regional Water Board may also request an evidentiary review by the Executive Officer or the Regional Water Board. The review request should specify whether an evidentiary hearing is being requested. The request for review should be sent to Mr. Bert Van Voris, California Regional Water Quality Control

Board, Central Valley Region, 1685 E Street, Fresno, CA 93706. Mr. Van Voris must receive the review request within 30 days of the date of this order. Failure to request review may prevent you from submitting new evidence in support of a State Board petition. A review request under this paragraph does not extend the 30-day period to file a petition with the State Board.”

This Order is effective upon the date of signature.

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PAMELA C. CREEDON, Executive Officer

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15 June 2007

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(Date)