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7 OCCIDENTAL RESEARCH CORPORATION

8 **STATE OF CALIFORNIA**
9 **STATE WATER RESOURCES CONTROL BOARD**

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12 In the Matter of Los Angeles Regional Water Quality
13 Control Board Cleanup and Abatement Order No.
R4-2012-0135

No.:

**PETITION FOR REVIEW AND
REQUEST FOR HEARING**

**[REQUEST TO HOLD IN ABEYANCE
PENDING FURTHER NOTIFICATION]**

1 Pursuant to Water Code section 13320(a) and California Code of Regulations, title 23, section
2 2050 *et seq.*, Occidental Research Corporation (“Petitioner”) respectfully petitions the State Water
3 Resources Control Board (“State Board”) for review of Cleanup and Abatement Order No. R4-2012-
4 0135 (“the Order”), dated October 2, 2012 and issued by the Executive Officer of the Los Angeles
5 Regional Water Quality Control Board (“Regional Board”) with regard to the former United
6 Production Services, Inc. and Occidental Research Corporation facility, located at 1855 Carrion
7 Road, La Verne, California (“the Site”). A copy of the Order is attached hereto as Exhibit A.

8 **1. Name and Address of Petitioner**

9 Petitioner may be contacted through counsel of record: Peter A. Nyquist, Alston & Bird LLP,
10 333 S. Hope Street, 16th Floor, Los Angeles, California, 90071; (213) 576-1142;
11 pete.nyquist@alston.com.

12 **2. Specific Action or Inaction for Which this Petition for Review is Sought**

13 The Regional Board action for which this petition for review is filed concerns the issuance of
14 the Order, dated October 2, 2012, requiring Petitioner to assess, clean up, and abate waste discharged
15 to waters of the State at former United Production Services, Inc. (Former Occidental Research
16 Corporation), 1855 Carrion Road, La Verne, California (WIP File No. 101.0077 and Site ID No.
17 2040030.

18 **3. Date the Regional Board Acted or Failed to Act**

19 The date of the Regional Board’s action which is subject to review is October 2, 2012, the
20 date the Order was signed and issued by the Executive Officer of the Regional Board via certified
21 mail.

22 **4. Statement of Reasons the Action is Inappropriate and Improper**

23 The issuance of the Order was beyond the authority of the Regional Board, inappropriate,
24 improper, or not supported by the record, for the following reasons:

25 (a) The Order includes directives, findings of fact, and conclusions that are not supported by, or
26 are inconsistent with, substantial data and evidence in the record for the Site, as well as
27 surrounding areas and/or facilities;

28 (b) the Order fails to set forth legally sufficient grounds for requiring Petitioner to complete

- 1 further site assessment, complete and submit additional data, and conduct mitigation plans
2 and remedial actions;
- 3 (c) the Order fails to identify or name additional dischargers or parties responsible for
4 investigating, cleaning up or abating alleged waste discharges at or around the Site;
- 5 (d) the Order poses an unreasonable burden on Petitioner in its directive to conduct remedial
6 actions through a cleanup and abatement program;
- 7 (e) the Order poses an unreasonable burden on Petitioner in its time schedule listed in
8 Attachment B of the Order with regard to various deliverables and to implement and conduct
9 mitigation plans and remedial actions;
- 10 (f) the Order fails to adequately account for the results of Petitioner's previous investigations or
11 to address Petitioner's comments to the draft Cleanup and Abatement Order issued to
12 Petitioner on February 29, 2012. As such, Petitioner has been denied procedural and
13 substantive due process rights, resulting in substantial harm through the imposition of
14 unjustified and inappropriate regulatory requirements, costs, and/or the potential for civil
15 liability.

16 **5. Petitioner Is Aggrieved**

17 Petitioner is aggrieved for the reasons set forth in paragraph 4, above. Additionally, the
18 Order will require Petitioner to incur substantial investigative, monitoring, cleanup, abatement, and
19 other costs, without adequate cause or justification.

20 **6. Petitioner's Requested Action by the State Board and Request to Hold Petition in**
21 **Abeyance**

22 Petitioner respectfully requests the State Board determine that the Regional Board's action in
23 issuing the Order was inappropriate and improper, and to vacate the Order pursuant to this petition
24 and in accordance with applicable law.

25 Petitioner further requests the State Board to hold in abeyance this petition for review and
26 request for hearing pending further discussions between Petitioner and the Regional Board. Petitioner
27 will notify the State Board if it intends to activate this petition. Petitioner reserves the right to amend
28 this petition and submit a detailed statement of points and authorities in the event this petition is

1 converted to active status.

2 **7. Statement of Points and Authorities**

3 Petitioner reserves the right to, and shall, submit a detailed statement of points and authorities
4 in the event this petition for review is activated.

5 **8. Statement of Transmittal of Petition to the Regional Board**

6 A true and correct copy of this petition for review was transmitted on behalf of Petitioner to
7 Samuel Unger, Executive Officer of the Regional Board via certified mail, on November 1, 2012.

8 **9. Substantive Issues Raised before the Regional Board**

9 Petitioner has not been afforded a meaningful opportunity to be heard on the substantive
10 issues set forth in the Order. Pending ongoing efforts to resolve disputed issues addressed herein
11 with Regional Board staff, Petitioner may be without an adequate remedy unless the State Board
12 grants this petition for review and a hearing with respect to the issues presented herein.

13 **10. Request for Hearing**

14 In the event Petitioner determines it is necessary to activate this petition for review, Petitioner
15 will request the State Board to schedule a hearing at the earliest feasible date. In connection with any
16 such hearing, Petitioner reserves the right to present additional evidence or testimony to the State
17 Board and will submit to the State Board, if appropriate, statements regarding evidence pursuant to
18 Code of California Regulations, title 23, section 2050(a)-(b).

19
20 DATED: November 1, 2012

Respectfully submitted,

21
22 **ALSTON & BIRD LLP**

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25 Peter A. Nyquist
26 Attorneys for Petitioner
27 OCCIDENTAL RESEARCH CORPORATION
28

Los Angeles Regional Water Quality Control Board

October 2, 2012

Mr. Richard Passmore
Senior Director Operations
Glenn Springs Holdings, Inc.
5005 LBJ Freeway, Suite 1350
Dallas, TX 75244

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7011 3500 0003 5491 1534

SUBJECT: CLEANUP AND ABATEMENT ORDER NO. R4-2012-0135

SITE/CASE FILE: FORMER UNITED PRODUCTION SERVICES, INC. (FORMER OCCIDENTAL RESEARCH CORPORATION), 1855 CARRION ROAD, LA VERNE, CALIFORNIA (WIP FILE NO. 101.0077 AND SITE ID NO. 2040030)

Dear Mr. Passmore:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within major portions of Los Angeles and Ventura Counties, including the above-referenced site.

Enclosed is Cleanup and Abatement Order No. R4-2012-0135 (CAO), directing you to assess, monitor, cleanup, and abate the effects of contaminants discharged to the soil and groundwater at 1855 Carrion Road, La Verne, California. This Order is issued under section 13304 of the California Water Code. Should the Discharger fail to comply with any provision of this Order, it may be subject to further enforcement action, including injunction and civil monetary remedies, pursuant to applicable California Water Code sections including, but not limited to, sections 13304, 13308, and 13350.

A draft of this CAO was provided to you on February 29, 2012, inviting comments. You provided your comments on the draft CAO in your letter, dated March 29, 2012. The University of La Verne (ULV), the current property owner, also submitted its comments in its letter, dated April 2, 2012. The attached document, titled Responsiveness Summary - Draft Cleanup and Abatement Order R4-2012-XXXX, summarizes your and ULV's comments and how we addressed them in the attached CAO.

Mr. Richard Passmore
Former United Production Services, Inc.
(Former Occidental Research Corporation)

- 2 -

October 2, 2012

If you have any questions regarding this letter, please contact Mr. Bizuayehu Ayele at (213) 576-6623 or by email at bayele@waterboards.ca.gov or Mr. Jeffrey Hu at (213) 576-6736 or by email at ghu@waterboards.ca.gov.

Sincerely,



Samuel Unger, P.E.
Executive Officer

Enclosure: a) Cleanup and Abatement Order No. R4-2012-0135
b) Responsiveness Summary - Draft Cleanup and Abatement Order R4-2012-XXXX

cc: Mr. Peter Nyquist, Alston & Bird LLP
Mr. Stewart Abrams, Langan Engineering and Environmental Services
Mr. Philip Hawkey, University of La Verne
Mr. Donald Nanney, Gilchrist & Rutter
Mr. Jeff Rupp, Scotland Investment Company
Ms. Carol Serlin, Environ International Corporation
Mr. Curtis Tamkin, Tamkin Family Trust
Mr. Mark Elliott, Pillsbury Winthrop Shaw Pittman LLP
Mr. Bill Fernandez, CDM

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NO. R4-2012-0135
REQUIRING

OCCIDENTAL RESEARCH CORPORATION

TO ASSESS, CLEAN UP, AND ABATE
WASTE DISCHARGED TO WATERS OF THE STATE
(PURSUANT TO CALIFORNIA WATER CODE SECTION 13304)

AT FORMER UNITED PRODUCTION SERVICES, INC.
(FORMER OCCIDENTAL RESEARCH CORPORATION)
1855 CARRION ROAD, LA VERNE, CALIFORNIA 91750
(WIP FILE NO. 101.0077 AND SITE ID NO. 2040030)

This Cleanup and Abatement Order No. R4-2012-0135 (Order) is issued to Occidental Research Corporation based on provisions of California Water Code sections 13304 and 13267, which authorize the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to issue a Cleanup and Abatement Order and require the submittal of technical and monitoring reports.

The Regional Board finds that:

BACKGROUND

1. **Discharger:** Occidental Research Corporation (ORC) [hereinafter called Discharger] is a Responsible Party (RP) due to its: (a) past ownership of the property located at 1855 Carrion Road, La Verne, California (Site) and (b) prior operation of a research facility at the Site that resulted in the discharge of wastes, including volatile organic compounds (VOCs), particularly perchloroethylene (PCE), to the environment. ORC is a subsidiary of Occidental Petroleum Corporation (OPC).

As detailed in this Cleanup and Abatement Order (Order), the Discharger has caused and permitted waste to be discharged or deposited where it has discharged and is, or probably will continue to be discharged into the waters of the state which creates a condition of pollution or nuisance.

2. **Location:** The Site is located at 1855 Carrion Road, approximately 3 miles southeast of the State Route 57 and the 210 Freeway interchange, in La Verne, California. Attachment A, Figure 1, Site Location Map, attached hereto and incorporated herein by reference, depicts the location of the Site. Additionally, Figure 2, Site Map, of Attachment A, also attached hereto and incorporated herein, depicts the Site and the surrounding area. The Site is bounded to the north and west by commercial and industrial properties. It is bounded to the east and south by a vacant land which was historically undeveloped and used for cattle grazing and periodic farming.

Along the western property boundary is the Los Angeles County Flood Control District Channel, which is lined with concrete near the center of the Site and joins the concrete-lined

Puddingstone Channel to the southwest of the Site. Marshal Canyon Channel crosses the vacant land to the east of the Site. Puddingstone Channel and Marshal Canyon Channel drain into Puddingstone Reservoir, a 250-acre lake inside Bonelli Regional Park, located approximately 1 mile, southwest of the Site.

Residential properties are located to the southwest of the Site across Puddingstone Channel.

3. **Groundwater Basin:** The Site is located on the northwest edge of the Pomona Basin, which forms the Six Basins in eastern Los Angeles County, near the division of the main San Gabriel Valley Groundwater Basin. The Six Basins are comprised of Canyon, Upper and Lower Claremont Heights, Pomona, Live Oak, and Ganesha Basins. The Six Basins are bounded on the southwest by the San Jose Hills, on the north by the San Gabriel Mountains, on the south and east by the Chino Basin and on the west by the Main San Gabriel Basin.

The Pomona Basin is comprised of water-bearing alluvial sediments underlain by rocks of the Glendora Volcanics. The saturated thickness of water-bearing alluvial deposits is estimated to range to over 500 feet in thickness east of the Site with depth to groundwater ranging from 150 feet to 400 feet below ground surface (bgs). However, the maximum thickness of the alluvial deposits is approximately 64 feet and the depth to groundwater ranges from 14 feet to 22 feet bgs beneath the Site and its vicinity.

On a regional scale, groundwater flow within the Pomona Basin is to the south and southwest. However, the regional groundwater flow is influenced by Indian Hill fault near the Site with a southeasterly component being present south of the fault and a westerly and southwesterly component existing north of the fault.

As set forth in the *Water Quality Control Plan* for the Los Angeles Region (Basin Plan), which was adopted on June 13, 1994, the Regional Board has designated beneficial uses for groundwater among which include Municipal and Domestic drinking water supplies (MUN) in the Pomona Basin and has established water quality objectives for the protection of these beneficial uses.

The existing beneficial uses designated by the Regional Board for Puddingstone reservoir are Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Ground Water Recharge (GWR), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), Wildlife Habitat (WILD), and Rare, Threatened, or Endangered Species (RARE).

SITE HISTORY

4. **Site Description and Activities:** The Site is currently owned by the University of La Verne (ULV). The Site includes one parcel encompassing approximately 3.23 acres. It has five single story buildings, with four of the buildings being connected by enclosed hallways.

A title search performed for the property indicates that the Site was either used as raw crop farmland or for pasture until it was purchased by Garrett Research and Development Company (Garrett) in 1964. ORC bought the facility and the property from Garrett in 1966.

ORC used the facility to conduct research and development of various chemicals and synthetic fuel and for coal gasification, municipal waste incineration, fertilizer processing, mineral processing and others. For its research operations, ORC constructed various buildings for research laboratories and pilot plants and installed sumps, an underground storage tank (UST), septic tanks with seepage pits, evaporation ponds, wash tanks, a clarifier and a sewer line with a lift station at the facility.

Waste storage and disposal practices varied from time to time during the operation of the ORC at the facility. In the late 1960s, laboratory wastes were discharged to a French drain located in the southeastern portion of the Site and were allowed to percolate into the soil. This practice was discontinued in 1971 and liquid wastes were stored in large sumps in the southeastern part of the Site. A 6,000-square foot evaporation pond was also used at the southwestern part of the Site for discharge of laboratory wastes in 1970. Laboratory wastes were stored in a 60,000-gallon above ground storage tank (AST) in 1971. From 1972 to 1978, chemical wastes were stored in drums on the property.

Four septic tanks with associated seepage pits were installed between 1964 and 1969 for waste disposal. The seepage pits were proposed to be 4 feet in diameter and to have depths ranging from 30 feet to 50 feet bgs. The depth to groundwater at the Site ranges from 14 feet to 22 feet bgs. Construction permits show that the bottom of the seepage pits was below the water table.

A waste discharge requirements (WDR) Permit No. 70-7, issued on November 30, 1970 by the Regional Board to Garrett, predecessor to ORC, regulated wastes discharged to or into the ground and prohibited Garrett from extending the bottom of the sewage disposal system to within five feet of fluctuating groundwater.

ORC connected its sewer system with the municipal sewer system in August 1972. A 4-inch pipe running along the eastern property boundary from a lift pump station in the southeast corner of the Site connected ORC's sewer line with the municipal sewer system.

After the termination of its operations in 1978, ORC continued to own the property. It divided the property in 1986 and sold a small parcel to Gainey Ceramics, a ceramic products manufacturing facility located west of the Site. The remaining portion of the property was sold to Mr. Robert Lem and his associates on May 6, 1986. Five Star La Verne Development Group bought the property from Mr. Lem on August 15, 1986 and used the Site for storage and cleaning of vehicles.

On February 17, 1989, Mr. Mike Brown and Mrs. Nancy Brown purchased the property from Mr. Lem to use it for storage, rental and setup of grandstands. Following the purchase, the Site was graded, modified and further cleaned up. According to the City of La Verne records, the Site was not up to full operation at least until November 17, 1989.

Between 1989 and 2000, Mike Brown Grandstands, which was a subsidiary of United Production Services, Inc. (UPS), operated a business on the property, providing a variety of services for rental and set-up of staging equipment, roofing systems, grandstands, bleachers and stages. UPS constructed a spray booth adjoining Building E in the southern portion of the Site for its operations.

In December, 2000, ULV acquired the property from the Brown Family Trust. ULV has held the property for a planned redevelopment which may include an athletic complex, student

	Development Company	Corporation	Title Search Documents
1986	Occidental Research Corporation	Robert F. and M.K Lem and others	Title Search Documents
1986	Robert F. and M.K Lem and others	Five Star La Verne Development Group	Title Search Documents
1989	Five Star La Verne Development Group	Mike and Nancy Brown	Title Search Documents
1989	Mike and Nancy Brown	Brown Family Trust	Title Search Documents
2000	Brown Family Trust	University of La Verne	Title Search Documents

Site Operations Timeline

The historical Site operations are summarized in Table 2 below.

Table 2 - Site Operations History

Approximate Period	Operator of Facility	Activities
1964 - 1966	Garrett Research and Development Company	Various chemicals research and process development
1966 - 1978	Occidental Research Corporation ¹	Various chemicals research and process development
1986 - 1986	Robert F. and M.K Lem and others	Unknown
1986 - 1989	Five Star La Verne Development Group ²	Storage and cleaning of recreational vehicles
1989 - 2000	Brown Family Trust and United Production Services, Inc.	Storage, rental and setup of grandstands and vehicle maintenance
2000 - present	University of La Verne	Storage of office files and equipment

¹ Occidental Research Corporation (ORC) continued to own the property until 1986 even though it ceased its operations on the property in 1978. Between 1978 and 1986, ORC was decommissioning the research facility and removing wastes from the Site.

² Five Star La Verne Development Group reportedly leased portions of the property to Orbit Moving Systems and Industrial Hydrocarbons, Inc. which used the property for vehicle maintenance and chemical storage, respectively.

5. **Chemical Usage:** A complete record of chemical usage and storage history for the Site is not available. However, based on the available documents:

- a. ORC reported that it purchased 8 gallons of PCE and 290 gallons of trichloroethylene (TCE) between 1972 and 1977 for use at the Site. However, this record is incomplete because of the fact that PCE and TCE consumption at the facility prior to July 1972 and after October 1977 is unknown.

TCE was reportedly mixed with dry ice and used as a coolant during the coal conversion process.

- b. A chemical use and storage questionnaire (CUQ) completed and submitted by UPS on October 6, 1989 indicates that no chemicals were used and stored at the UPS facility. However, copies of the City of La Verne records show that a spray booth was constructed by UPS probably after December 7, 1989.

A site inspection by Regional Board staff indicates that solvents in 55-gallon drums and many small containers of paint were observed at the south edge of the property and that UPS used aromatic solvents and paints in its operations.

No records are available on the chemical usage and storage history of Mr. Robert Lem and his associates and Five Star La Verne Development Group. Given the fact that Mr. Robert Lem and his associates owned the Site for just three months from May 6, 1986 to August 15, 1986, it is unlikely that significant historical industrial operations were conducted by these individuals/entities.

EVIDENCE OF WASTE DISCHARGES AND BASIS FOR SECTION 13304 ORDER

6. **Waste Discharges:** Site investigations conducted at the Site since 1979 indicate that there were waste discharges to the soil and groundwater at the Site. The Site investigations involved soil gas surveys, soil borings for soil sampling and groundwater monitoring well installation for groundwater sampling.

After the termination of its operations in 1978, ORC voluntarily initiated a soil and groundwater investigation at the Site. Between 1979 and 1981, James M. Montgomery Consulting Engineers, Inc. (JMM) performed soil sampling at various areas of concerns (AOCs) at the Site and collected soil samples from soil borings drilled to a total depth of 60 feet bgs. Subsequently, Remedial Engineering, Inc. (REI) and The Source Group (TSG) collected soil samples from soil borings ranging in depth from 20 feet to 25 feet bgs in 1990 and 2001 and 2003, respectively. In September 1994, soil samples were collected by CET Environmental Services, Inc. (CET) at 5-foot depth intervals from a soil boring drilled to a depth of 20 feet bgs during installation of groundwater monitoring wells at the Site.

Analysis of soil samples detected PCE and other VOCs. Soil samples collected by CET during the installation of MW-103 had PCE concentrations at 5.9 micrograms per kilogram ($\mu\text{g}/\text{Kg}$) at 10 feet bgs, 26 $\mu\text{g}/\text{Kg}$ at 15 feet bgs, and 290 $\mu\text{g}/\text{Kg}$ at 20 feet bgs. PCE was also detected in soil matrix at a maximum estimated concentration of 1100 $\mu\text{g}/\text{Kg}$ in a sample collected by TSG from 19 feet bgs.

In the most recent site assessment completed by Langan Engineering (Langan) in 2010, confirmation soil samples collected for evaluating a Membrane Interface Probe (MIP) testing

results reported PCE at concentrations ranging from 4.5 µg/Kg to 310 µg/Kg. The highest PCE concentration was reported for a soil sample collected at the former septic tank location in the northeast corner of the Site.

Soil gas surveys were performed at the Site by REI, CET, TSG and Langan in 1990, 1993, 2001 and 2010, respectively. Soil gas samples were collected at a maximum depth of 10.5 feet bgs during the soil gas surveys conducted by REI and CET. TSG collected soil gas samples at depths ranging from 6 feet to 20 feet bgs. Langan collected soil vapor samples along the sewer line at the eastern property boundary from triple-nested probes installed at 5 feet, 10 feet and 15 feet bgs.

Analysis of soil gas samples collected from onsite locations detected PCE at concentrations ranging from 2.7 to 29 micrograms per liter (µg/L). A PCE plume was identified in the soil gas near the southern property boundary close to the former evaporation pond and the areas where there were French drains and wash tanks. PCE was also detected in soil gas samples collected from the former paint and solvent storage area, the former sumps and the former locations of septic tanks. Low level PCE was detected in the soil vapor samples collected along the sewer line.

Fifteen piezometers (D-1, D-5, D-7, D-10 through D-21) were installed as part of the site investigation by JMM from 1979 to 1981. In September 1994, CET installed nine groundwater monitoring wells (MW-101 through MW-109) and two more groundwater monitoring wells (TSG-MW-10 and TSG-MW-11) were installed by TSG in 2001 to collect and analyze groundwater samples. TSG installed four additional groundwater monitoring wells (TSG-D-20 and TSG-MW-12 through TSG-14) onsite and offsite near the northern property boundary in 2003. Langan installed eleven groundwater monitoring wells (MW-201 through MW-204, MW-206 through MW-208, MW-5, MW-6, MW-18R and MW-19R) onsite and offsite in 2010.

Analysis of groundwater samples collected by JMM initially indicated the presence of TCE at concentrations up to 123 µg/L and low level concentrations of PCE in the groundwater. Subsequent groundwater sampling conducted by REI, CET, TSG and Langan in 1990, 1994, 2001 through 2002, and 2010, respectively, detected PCE at higher concentrations ranging from 8,500 µg/L to 9,700 µg/L. The core of the PCE plume underlies such contaminant source areas as the former septic tank locations in the eastern portion of the Site. High concentration of PCE was also reported in the southern portion of the Site, especially in MW-103, where there were French drains, wash tanks and paint and solvent storage area.

In the most recent groundwater sampling completed by Langan in 2010, the highest PCE concentration reported from onsite groundwater monitoring wells was 6,700 µg/L. Depth to groundwater at the Site ranges from 14 feet to 22 feet bgs.

- 7. Source Elimination and Remediation Status:** After termination of its operations in 1979, ORC decommissioned the facility and hauled off approximately 1,300 drums containing some form of hazardous waste. In addition, 42,000 gallons of diluted liquid waste was removed and disposed at a local landfill¹. No soil and groundwater cleanup has been conducted at the Site.

¹ An *Audit Report on Sewer Systems and Chemical Use at UPS La Verne Site*, dated September 18, 1990, by Ike Yen Associates lists and reports wastes disposed of during the decommissioning of the ORC facility.

8. Summary of Findings from Site Investigations

Regional Board staff has reviewed and evaluated technical reports and records pertaining to the Site history and the discharge, detection, and distribution of wastes on the former ORC Site and the Site vicinity. The following are the findings of the review of the reports and records available:

- a. The Regional Board does not have records on historical operations conducted by Mr. Robert Lem and his associates and Five Star La Verne Development Group, entities which occupied the Site after termination of operations by ORC. However, given the fact that Mr. Robert Lem and his associates owned the Site for just three months from May 6, 1986 to August 15, 1986, it is unlikely that significant industrial operations were conducted by these individuals/entities.
- b. The City of La Verne records indicate that UPS, which bought the property from Five Star La Verne Development Group on February 17, 1989, did not begin full operation at least until November 17, 1989. It was modifying and cleaning up the Site during the period between February and November 1989. UPS also did not construct a spray booth on the Site until at least December 7, 1989.

The discovery of a high concentration PCE plume in the groundwater beneath the Site in October 1989 hence predates the start of UPS' operation and its usage of aromatic solvents and paints at the Site.

- c. Sewer permits from the City of La Verne indicate that ORC had four 1000 gallon septic tanks with associated seepage pits at the Site. The seepage pits were proposed to be 4 feet in diameter and to have depths ranging from 30 feet to 50 feet bgs.

Direct discharge of wastes from the seepage pits into the perched aquifer is a likely pathway for causing groundwater pollution at the Site.

- d. A VOC plume in the soil gas has been identified in the southern portion of the Site, where there was an evaporation pond, a French drain and wash tanks, with PCE concentrations ranging from 2.1 µg/L to 29 µg/L and 1,1-dichloroethene (1,1-DCE) concentrations ranging from 3.4 µg/L to 100.7 µg/L at 5 feet and 10 feet bgs.
- e. PCE was detected in all soil samples collected during the installation of onsite well MW-103 in the southern portion of the Site and PCE concentration in the soil samples increased with depth, i.e. 5.9 µg/Kg at 10 feet bgs, 26 µg/Kg at 15 feet bgs, and 290 µg/Kg at 20 feet bgs.
- f. The maximum concentration of PCE in the soil vapor is 29 µg/L at approximately 9.5 feet bgs. The concentration of PCE in the soil vapor exceeds the California Human Health Screening Level (CHHSL) of 0.18 µg/L for residential land use and 0.603 µg/L for commercial/industrial land use by more than an order of magnitude, posing a potential human health threat through vapor intrusion into the indoor air.
- g. The maximum concentration of PCE in the soil matrix is 1,100 µg/Kg at 19 feet bgs. The concentration of PCE in the soil matrix apparently exceeds soil screening levels (SSLs) for groundwater quality protection for similar soil types by several orders of magnitude, posing a threat to groundwater quality.

The concentration of PCE in the soil matrix also exceeds the United States Environmental Protection Agency (USEPA) Region IX direct contact exposure pathways Regional Screening Level (RSL) of 0.55 milligrams per kilogram (mg/Kg) for residential soil, posing a potential human health threat through direct contact exposure pathway.

- h. Groundwater flows to the south-southwest and the depth of groundwater ranges approximately from 14 feet bgs to 22 feet bgs.
- i. The maximum concentration of PCE in the groundwater is 9,700 µg/L. In the August 2010 groundwater sampling event, PCE was reported at a maximum concentration of 6,700 µg/L. The concentration of PCE in the groundwater exceeds the USEPA's or California Department of Public Health's Maximum Contaminant Levels (MCL) of 5 µg/L by up to more than three orders of magnitude.

The PCE plume in the groundwater also poses a potential human health threat through volatilization of VOCs from shallow groundwater and vapor intrusion into the indoor air. Offsite migration of the PCE plume also poses a potential ecological threat to the nearby creeks and Puddingstone Channel.

- j. The center line and high concentration portion of the plume is beneath major potential sources of wastes at the Site, such as the former locations of septic tanks and their seepage pits, an evaporation pond, French drains and wash tanks.

Direct discharge of wastes from the deep seepage pits into the groundwater is the likely scenario for groundwater pollution in the northern and central parts of the Site where soil matrix and soil gas data provide little conclusive evidence, indicating a discharge(s) of VOCs into the vadose zone. However, in the southern portion of the Site, soil matrix and soil gas data indicate waste discharge into the vadose zone from the evaporation pond, French drain and wash tanks, causing groundwater pollution with VOCs.

- k. The upgradient site, Victor Graphics, is believed to be a contributing source for the PCE plume in the groundwater beneath the Site. Historical industrial operations were also conducted at the Victor Graphics site and caused soil and groundwater pollution at the site. Victor Graphics also had one clarifier/septic system consisting of a three-stage clarifier and a septic tank with seven seepage pits with 5 feet diameter and depths ranging from 30 feet to 32 feet bgs.

The Regional Board has issued a separate Order to the property owner for the upgradient site, the Tamkin Family Trust, to clean up the waste in soil and groundwater discharged at and from the Victor Graphics site.

The Regional Board recommends that the responsible parties named in this Order work cooperatively with the responsible party for the upgradient site, the Tamkin Family Trust, with respect to investigation and cleanup of the soil and groundwater at the two sites.

- 9. **Regulatory Compliance Status:** Prior to issuance of this Order, the Discharger complied with all Orders issued pursuant to the California Water Code (CWC) section 13267, except that it was issued with one Notice of Violation (NOV) for inadequate compliance with the Orders, dated November 10, 2008 and on October 21, 2009.