

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2003-0035

INITIAL SITE CLEANUP REQUIREMENTS FOR:

UNION PACIFIC RAILROAD COMPANY
DANIEL C. and MARY LOU HELIX, ELIZABETH YOUNG, JOHN V. HOOK, NANCY
ELLI COCK, STEVEN PUCCELL,
AND CONTRA COSTA COUNTY REDEVELOPMENT AGENCY

for the property referred to as:

HOOKSTON STATION

and located at

228 HOOKSTON ROAD
PLEASANT HILL, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter as Regional Board), finds that:

- 1. Site Location:** The Hookston Station site (herein referred to as “the Site”) is located at the intersection of Hookston and Bancroft Roads in Pleasant Hill, California (Attachment A, Figure 1, Site Location Map). The Site covers approximately 8 acres, and the area is currently occupied by mixed commercial and light industrial businesses. Commercial industries are located immediately to the west of the property, and storage and landscape materials businesses are located to the north. A high-density housing complex is present immediately across the northeast edge of the property. Extended land use is predominantly residential in the Site vicinity.
- 2. Site History:** The Site was owned and operated by Southern Pacific Transportation Company (SPTCo) from June 1891 until September 1983 as a portion of the San Ramon Branch line, which once connected Avon to San Ramon, California. The Site included a freight loading platform with railroad sidings and was used for loading of fruit and lumber. Between approximately 1965 and 1983, the land was developed into a mixed light industrial business complex. A former tenant at the Site has included, among others, ET Mag Wheels, a manufacturer of chrome and alloy wheels where trichloroethylene (TCE), a chlorinated solvent was used. ET Mag Wheels is currently bankrupt and no longer in existence. The property was transferred from SPTCo to Mr. and Mrs. Dan Helix in 1983, and the Contra Costa County Redevelopment Agency (CCRA) subsequently purchased the eastern portion of the Site in 1989. The western portion of the Site is currently owned by Mr. and Mrs. Dan Helix, Ms. Elizabeth Young, Mr. John V. Hook, Ms. Nancy Ellicock,

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and Mr. Steven Pucell (collectively the Hookston Plaza owners). CCCRA owns the eastern portion of the Site.

Environmental investigations regarding the presence of chemicals in soil and ground water at the Site were conducted between 1989 and 1996 by various environmental consulting firms on behalf of CCCRA and the Hookston Plaza owners. These investigations discovered the presence of both petroleum-based products and chlorinated solvents in soil and ground water at the Site. Several recent studies have included a soil vapor study, soil and groundwater sampling, and a human health risk assessment.

The initial environmental investigations by Harding Lawson Associates (HLA, January 1990 and June 1990) were completed for the Contra Costa County Public Works Department (on behalf of CCCRA) in support of the proposed purchase by CCCRA of the eastern portion of the property. Following the discovery of chemical impacts to soil and ground water at the Site, Engeo, Inc. (1991 to 1992) and Treadwell & Rollo, Inc. (1993 to 1996) performed additional investigations on behalf of the Hookston Plaza owners. These later investigations were performed to support pending litigation between the Hookston Plaza owners, CCCRA, SPTCo, and others. All parties have settled their litigation efforts and have agreed to share costs for the investigation and remediation of chemicals detected in soil and groundwater originating from sources at the Site (“Hookston Station Contamination”). Union Pacific Railroad (UPRR) became responsible for SPTCo’s share of costs for this Site following its merger with SPTCo in 1997.

- 3. Named Dischargers:** UPRR is named as a discharger because it is the successor in interest to SPTCo, which owned the 8-acre property during or after the time of the activities that resulted in the discharge, and had the legal ability to prevent the discharge. CCCRA is named as a discharger because it has owned the eastern portion of the 8-acre property during or after the time of the activities that resulted in the discharge, has knowledge of the discharge or the activities that caused the discharge, and has the legal ability to prevent the discharge. The Hookston Plaza owners are named as dischargers because they owned the 8-acre property during or after the time of the activities that resulted in the discharge, have knowledge of the discharge or the activities that resulted in the discharge, and have the legal ability to prevent the discharge.

If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the State, the Board will consider adding that party's name to this Order.

- 4. Regulatory Status:** The Site is not currently subject to a Board Order. The purpose of this order is to establish Site Cleanup Requirements and include the tasks necessary to complete the final Remedial Action Plan (RAP).
- 5. Site Hydrogeology:** Previous investigations have identified three apparently distinct hydrogeologic zones, based on the observed stratigraphy and the vertical distribution of volatile organic chemicals (VOCs), primarily trichloroethylene (TCE) and tetrachloroethylene (PCE). The upper zone (or “A Zone”) is described as the laterally

discontinuous thin sand stringers found at approximately 0 to 30 feet below ground surface (ft bgs). The lower zone (or "B Zone") is described as the thicker, more laterally extensive sands and gravels found between approximately 30 to 70 ft bgs (ERM, 2002). The "C Zone" consists of deeper sand units observed between approximately 70 and 100 feet bgs. Ground water has been encountered at the Site at depths ranging from approximately 9 to 21 ft bgs. Ground water observed in the A Zone generally flows north-northeast towards Walnut Creek Channel under an average hydraulic gradient of approximately 0.004 feet per foot (ft/ft). Ground water observed in the B Zone flows northeast, under a hydraulic gradient of approximately 0.003 ft/ft. Based on the chemical distribution observed downgradient of the Site, it is likely that ground water flow direction bends to the east as it moves toward the Walnut Creek channel. The reach of Walnut Creek Channel in this portion of Concord is unlined. The channel is used for flood control by the Contra Costa County Flood Control District.

- 6. Adjacent Sites:** The western side of the Site is bordered by several commercial and light-industrial properties, including Haber Oil Products Company, a petroleum product distribution facility. The Regional Board is the lead agency providing oversight to soil and groundwater investigations at this facility, which have indicated impacts by petroleum hydrocarbons. Haber Oil has not performed any investigations regarding the presence of chlorinated solvents on any portion of their site but will be required by the Board to analyze for chlorinated solvents in the near future. A further offsite investigation to delineate the hydrocarbon plume is pending at and in the vicinity of this site.

Soil vapor studies conducted in the vicinity of the Site indicate that the greatest concentrations of PCE in soil vapor offsite on Vincent Road, west of the Hookston Station Site. Recent subsurface investigations have also indicated the presence of PCE in groundwater to the west of the Site. These findings suggest that there are offsite sources of PCE that may be migrating toward the Hookston Station Site. Based on the data collected so far, it is unclear if there are any onsite sources of PCE, in addition to the offsite sources. Board staff is requesting information from the offsite property owners and operators regarding site operations and any subsurface investigations conducted at these properties. If additional information is submitted indicating that there are any discharges of waste from these off-Site properties, then Board staff will require cleanup investigations at these properties.

- 7. Remedial Investigation:** Soil, soil vapor, and groundwater samples have been collected from several hundred discrete locations across the study area since Site investigation activities began in 1990. Samples have been collected at multiple depths at many areas throughout the Site. Analytical data indicates that dissolved VOCs are primarily observed in the coarse-grained deposits of the A and B zones found above 70 feet bgs. The TCE plume extends to about 2,000 feet northeast of the Site, beneath a residential neighborhood and extends to the Walnut Creek Channel.

Several soil sampling programs completed at the Site were focused on the previous elevated soil vapor concentrations and the sanitary sewer alignments at the Site. VOCs have been analyzed in soil samples collected from approximately 34 borings throughout

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the Site. TCE was the most common VOC detected in soil. Low concentrations of TCE have been reported in soil samples across the Site, typically in the 100 to 200 micrograms per kilogram ($\mu\text{g}/\text{kg}$) range. The greatest TCE concentration of 830 $\mu\text{g}/\text{kg}$ was reported in the southwest portion of the Site.

Quarterly ground water monitoring has been performed at the Site using the nine wells within the existing monitoring network. Subsequent groundwater investigations at the Site have included ground water sample collection between September 2001 and September 2002. Initially, 24 soil borings (B-35 through B-58) were completed at locations surrounding the perimeter of the Site, followed by 31 additional boreholes (CPT-1 through -29 and CPT-31 through -32). Maximum concentrations of the most common VOCs detected in ground water monitoring wells at the Site are summarized in the following table.

| Detected Chemicals in Groundwater | MW-01 | MW-02 | MW-03 | MW-04 | MW-05 | MW-06 | MW-07 | MW-01D | MW-02D | MW-03D | MCL |
|--|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-----|
| PCE | 1,400 | 8 | 16 | 96 | 1.6 | 2.4 | 570 | 40 | <0.5 | 5.6 | 5 |
| TCE | 390 | 400 | 7700 | 250 | 66 | 1.3 | 46 | 8,000 | <0.5 | 1,500 | 5 |
| Cis-1,2-DCE | 240 | <1 | 160 | 61 | <0.5 | <0.5 | <0.5 | 39 | <0.5 | 5.2 | 6 |
| Trans-1,2-DCE | 51 | <1 | 6.2 | 6.1 | <0.5 | <0.5 | <0.5 | 3.4 | <0.5 | <1.7 | 10 |
| 1,1-DCE | <0.5 | <1 | 180 | <0.5 | 1.9 | <0.5 | 2 | 200 | <0.5 | 91 | |
| Vinyl Chloride | <0.5 | <0.5 | <1 | 19 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1.7 | 0.5 |
| 1,1,1-TCA | <0.5 | <0.5 | 12 | <0.5 | 110 | <0.5 | <0.5 | <0.5 | <0.5 | <1.7 | |
| 1,1,2-TCA | <0.5 | <0.5 | 9 | <0.5 | <0.5 | <0.5 | <0.5 | 3.3 | <0.5 | <1.7 | 5 |
| Benzene | 4.3 | <0.5 | <0.5 | 500 | <0.5 | <0.5 | <0.5 | 11 | <0.5 | <0.5 | 1 |

Notes:

All units in $\mu\text{g}/\text{L}$ or parts per billion.

MCL – State of California Maximum Contaminant Level

Additional remedial investigations at the Site have included a soil vapor screening survey, surface water and sediment sampling along the unlined portion of Walnut Creek Channel, and soil vapor flux sampling to support a human health risk assessment.

The soil vapor screening survey indicated the presence of elevated concentrations of TCE in soil vapor beneath the 199 Mayhew structure (located near the southwest corner of the property) and other areas toward the northeast property boundary. The greatest concentrations of PCE in soil vapor were found off site on Vincent Road, which appear to be unrelated to any releases from the Hookston Station Site.

Water quality samples collected once per quarter through June 2002 from the Walnut Creek channel indicated the presence of low concentrations of PCE, TCE, and cis-1,2-DCE, in the surface water samples. All these concentrations were below the applicable National Ambient Water Quality Criteria and the California Inland Surface Waters Criteria for protection of aquatic organisms and human health via ingestion of aquatic organisms.

Sediment samples were collected in June 2002 from seven locations along the unlined portion of the flood canal and no VOCs were detected in any of these samples.

Soil vapor flux measurements collected on and off-Site were used to support a preliminary human health risk evaluation under a residential scenario for all VOCs that were detected during this study. Results of the risk assessment indicated that both indoor air and outdoor air VOC concentrations at the Site were below the RWQCB-promulgated risk-based screening levels and there was no risk to surface water or ecological receptors in Walnut Creek Channel. The preliminary risk assessment did not consider all possible exposure pathways to the chemicals of concern that were detected at the Site. Therefore, Task 3 of this Order requires that the dischargers prepare a new risk assessment work plan that shall address how all the exposure pathways will be addressed and submit a new risk assessment, as required by Task 8 of this Order.

Additional investigation at the Site is needed to identify and delineate the extent of the source area, establish an interim remedial action for source area control, define the lateral and vertical extent of the off-site groundwater plume, identify all possible exposure scenarios at the Site and its vicinity and identify any private supply wells located within the plume originating from groundwater discharge sources at the Site. Specific tasks and the due dates to address each of these objectives are summarized under the tasks section of this Order.

8. **Interim Remedial Measures:** The Dischargers at or in the vicinity of the Site have taken no remedial actions. No source removal has been implemented at the Site. To reduce the threat to water quality, public health, and the environment posed by the discharge of waste originating from sources at the Site and to provide a technical basis for selecting and designing final remedial measures, appropriate interim remedial measures need to be implemented at this Site promptly.
9. **Basin Plan:** The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in 23 CCR 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater.

The existing uses of groundwater underlying and adjacent to the Site include domestic water supply.

The potential beneficial uses of groundwater underlying and adjacent to the Site include:

- a. Municipal water supply
- b. Industrial process water supply
- c. Industrial service water supply

d. Agricultural water supply

Existing and potential beneficial uses of the Walnut Creek Channel, as identified in the Basin Plan, include:

- a. Cold Fresh Water Habitat
- b. Fish Migration
- c. Contact and non-contact Water Recreation
- d. Fish Spawning
- e. Warm Freshwater Habitat
- f. Wildlife Habitat

10. **State Water Board Policies:** State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives. This order and its requirements are consistent with Resolution No. 68-16. State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

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11. **Preliminary Cleanup Goals:** The preliminary groundwater cleanup goals are based on applicable water quality objectives and are the more stringent of EPA and California primary maximum contaminant levels (MCLs), or equivalent. Primary MCLs for the two most common VOCs detected in groundwater in the vicinity, PCE and TCE, is set at 5 µg/L.

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The preliminary soil cleanup goals for the Site are intended to address the following exposure scenarios - indoor air inhalation, direct exposure, and leaching to groundwater. These are derived from the Draft Risk-Based Screening Levels (RBSLs) compiled by this region: 0.15 mg/kg for PCE, 0.40 mg/kg for TCE, 0.19 mg/kg for cis-1,2-DCE and 0.011 mg/kg for vinyl chloride.

12. **Basis for 13304 Order:** The discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.

13. **Cost Recovery:** Pursuant to California Water Code Section 13304, the discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.

- 14. **CEQA:** This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.
- 15. **Notification:** The Board has notified the discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.
- 16. **Public Hearing:** The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the dischargers (or their agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

- 1. The discharge of wastes or hazardous substances in a manner, which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.
- 2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
- 3. Activities associated with the subsurface investigation and cleanup, which will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. TASKS

1. SOURCE AREA INVESTIGATION WORK PLAN

COMPLIANCE DATE: April 25, 2003

Submit a workplan acceptable to the Executive Officer outlining the scope of work to further define the lateral and vertical extent of impacted soils that represent continuing sources to ground water impacts on the Hookston Station Site.

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2. COMMUNITY RELATIONS PLAN

COMPLIANCE DATE: May 14, 2003

Submit a work plan acceptable to the Executive Officer that addresses community relation issues. The plan should include an updated mailing list and the scope of work for

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communications with the local community. The plan should include a schedule for community meetings and the distribution of informational mailers.

3. RISK ASSESSMENT WORK PLAN

COMPLIANCE DATE: May 14, 2003

Submit a work plan acceptable to the Executive Officer outlining the scope of work to complete the human health risk assessment for impacts from the Hookston Station contamination.

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4. AREA WELL SURVEY

COMPLIANCE DATE: May 28, 2003

Submit a technical report acceptable to the Executive Officer documenting the results of the area well survey. The well survey should include an inventory of private and municipal water wells within the downgradient extent of the Hookston Station groundwater plume.

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5. REMEDIAL INVESTIGATION WORK PLAN

COMPLIANCE DATE: June 27, 2003

Submit a work plan acceptable to the Executive Officer outlining the scope of work to further define the lateral and vertical extent of contamination in soils on Site and the lateral and vertical extent of contamination in groundwater on and offsite.

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6. SOURCE AREA INVESTIGATION/INTERIM REMEDIAL MEASURES WORKPLAN

COMPLIANCE DATE: August 15, 2003

Submit a report acceptable to the Executive Officer documenting implementation of the source area investigation workplan. The report shall include an evaluation of the necessity and approach for potential interim remedial actions at the Site. The report shall provide an evaluation of various interim remedial measures that would adequately protect human health and the environment.

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7. IMPLEMENTATION OF SOURCE AREA INTERIM REMEDIAL ACTION

COMPLIANCE DATE: According to schedule in Task 6 report approved by the Executive Officer.

Submit a report acceptable to the Executive Officer documenting the implementation of the approved interim remedial action evaluation.

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8. NEW RISK ASSESSMENT

COMPLIANCE DATE: 135 days after the acceptance of the Risk Assessment Work Plan by the Executive Officer

Submit a Risk Assessment report, acceptable to the Executive Officer. The new risk assessment should address all exposure pathways at the Site.

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9. REMEDIAL INVESTIGATION

COMPLIANCE DATE: March 19, 2004

Submit a technical report acceptable to the Executive Officer documenting implementation of the approved remedial investigation work plan. The technical report should also summarize all subsurface remedial investigations conducted at the Site, including results of the December 2000 Phase I Remedial Investigation Field Sampling Plan (ERM, 2000), and the September 2002 CPT sampling. The Remedial Investigation should adequately define the lateral and vertical boundaries of the off-site portion of the Plume, and provide complete information on the private irrigation and supply wells in the area.

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10. FEASIBILITY STUDY AND PROPOSED CLEANUP STANDARDS

COMPLIANCE DATE: August 13, 2004

Submit a technical report acceptable to the Executive Officer containing:

- a. The summary of the results of the remedial investigation
- b. Evaluation of the installed interim remedial measures
- c. Feasibility study evaluating final remedial actions
- d. Risk assessment for current and post-cleanup exposures
- e. Recommended final remedial actions and cleanup standards
- f. Implementation tasks and time schedule

Items b and c should include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action.

Items a through c should be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), CERCLA guidance documents with respect to remedial investigations and feasibility studies, Health and Safety Code Section 25356.1(c), and State Board Resolution No. 92-49 as amended ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304"). All proposed soil and groundwater cleanup levels shall be protective to the human health and the environment.

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- 11. Delayed Compliance:** If the discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the discharger shall

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promptly notify the Executive Officer and the Board may consider revision to this Order. The discharger's ability to meet the date-certain compliance dates set herein are dependent on timely approval of prior technical reports by Board staff.

C. PROVISIONS

1. **No Nuisance:** The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).
2. **Good Operation & Maintenance:** The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.
3. **Cost Recovery:** The discharger shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the Site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the discharger over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.
4. **Access to Site and Records:** In accordance with California Water Code Section 13267(c), the discharger shall permit the Board or its authorized representative:
 - a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
 - b. Access to copy any records required to be kept under the requirements of this Order.
 - c. Inspection of any monitoring or remediation facilities installed in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
5. **Self-Monitoring Program:** The discharger shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.
6. **Contractor / Consultant Qualifications:** All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.

7. **Lab Qualifications:** All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).
8. **Document Distribution:** Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be made available to the public on a repository basis.
9. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.
10. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the discharger shall report such discharge to the Regional Board by calling (510) 622-2300 during regular office hours (Monday through Friday, 8:00 to 5:00). A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified. This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.
11. **Periodic SCR Review:** The Board will review this Order periodically and may revise it when necessary. The Dischargers may request revisions and upon review, the Executive Officer may recommend that the Board revise these requirements.

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I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on _____.

Loretta K. Barsamian
Executive Officer

=====
FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT
YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION
OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR
13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR
CIVIL OR CRIMINAL LIABILITY
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Attachments: Figures
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

UNION PACIFIC RAILROAD COMPANY
DANIEL C. and MARY LOU HELIX, ELIZABETH YOUNG, JOHN V. HOOK, NANCY
ELLCOCK, STEVEN PUCCELL
AND CONTRA COSTA COUNTY REDEVELOPMENT AGENCY

for the property referred to as

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and located at

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PLEASANT HILL, CONTRA COSTA COUNTY

1. **Authority and Purpose:** The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. _____ (Site Cleanup Requirements).
2. **Monitoring:** The discharger shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative groundwater samples according to the Table on the following page:

The following field parameters shall be monitored on-site during collection from groundwater monitoring wells, if the wells are purged prior to sampling:
temperature, pH, conductivity, and dissolved oxygen.

The discharger shall sample any new monitoring or extraction wells or extraction wells quarterly on a quarterly basis and analyze groundwater samples for the same constituents as shown in the following table. The discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Quarterly Monitoring Reports:** The discharger shall submit quarterly monitoring reports to the Board no later than 30 days following the end of the quarter (e.g. report for January through March period due April 30). The reports shall include:
 - a. **Transmittal Letter:** The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the discharger's principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under

penalty of perjury, that the report is true and correct to the best of the official's knowledge.

- b. Groundwater Elevations: Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in every quarterly monitoring report.

| Well No. | Sampling Frequency | Analyses by EPA Methods | Remarks |
|----------|--------------------|-------------------------|----------|
| MW-01 | Quarterly | 8260B | "A Zone" |
| MW-02 | Quarterly | 8260B | "A Zone" |
| MW-03 | Quarterly | 8260B | "A Zone" |
| MW-04 | Quarterly | 8260B | "A Zone" |
| MW-05 | Quarterly | 8260B | "A Zone" |
| MW-06 | Quarterly | 8260B | "A Zone" |
| MW-07 | Quarterly | 8260B | "A Zone" |
| MW-01D | Quarterly | 8260B | "B Zone" |
| MW-02D | Quarterly | 8260B | "B Zone" |
| MW-03D | Quarterly | 8260B | "B Zone" |

Notes:

Analysis for volatile organic compounds using EPA Method 8260B or equivalent.

- c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).
- d. Groundwater Extraction: If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the Site as a whole, expressed in gallons per minute and total groundwater volume for the period. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the period. Historical mass removal results shall be included in the second semi-annual report each year.
- e. Status Report: The monitoring report shall describe relevant work completed during the reporting period (e.g. Site investigation, interim remedial measures) and work planned for the following period.

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4. **Violation Reports:** If the discharger violates requirements in the Site Cleanup Requirements, then the discharger shall notify the Board office by telephone as soon as practicable once the discharger has knowledge of the violation. Board staff may, depending on violation severity, require the discharger to submit a separate technical report on the violation within five working days of telephone notification.
5. **Other Reports:** The discharger shall notify the Board in writing prior to any Site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for Site investigation.
6. **Record Keeping:** The discharger or his/her agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Board upon request.
7. **SMP Revisions:** Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the discharger. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Loretta K. Barsamian, Executive Officer, hereby certify that this Self-Monitoring Program was adopted by the Board on _____.

Loretta K. Barsamian
Executive Officer