



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Francisco Bay Regional Water Quality Control Board

Date: February 14, 2014
File No. 01S0690 (CFC)

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Trust, Legal Department
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6400 Sierra Court Investors, LLC
c/o Charles B. Greene, Esq.
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San Jose, CA 95113-1815
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SUBJECT: Transmittal of Tentative Order – Site Cleanup Requirements for Former Chevron Records Facility, 6400 Sierra Court, Dublin, Alameda County

Dear Ms. Chung, Mr. McMurry, Mr. Sustersich, and Mr. Greene:

Attached is a Tentative Order (Site Cleanup Requirements) for the subject site. This matter will be considered by the Regional Water Board during its regular meeting on Wednesday, April 9, 2014. The meeting will start at 9:00 am and will be held in the first floor auditorium of the Elihu Harris Building, 1515 Clay Street, Oakland, California. Any written comments by you or interested persons must be submitted to the Regional Water Board offices by March 14, 2014. Comments submitted after this date will not be considered by the Regional Water Board.

Pursuant to section 2050(c) of Title 23 of the California Code of Regulations, any party that challenges the Regional Water Board's action on this matter through a petition to the State Water Board under Water Code section 13320 will be limited to raising only those substantive issues or objections that were raised before the Regional Water Board at the public hearing or in timely submitted written correspondence delivered to the Regional Water Board (see above).

If you have any questions, please contact Cleet Carlton of my staff at (510) 622-2374 [e-mail ccarlton@waterboards.ca.gov].

Sincerely,

Bruce H. Wolfe
Executive Officer

Attachment: Tentative Order
cc w/attach:

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

TENTATIVE ORDER

ADOPTION OF SITE CLEANUP REQUIREMENTS FOR:

CHEVRON U.S.A., INC.,
ALCATEL-LUCENT USA, INC.,
B.F. SAUL REAL ESTATE INVESTMENT TRUST, AND
6400 SIERRA COURT INVESTORS, LLC

for the property located at

6400 SIERRA COURT
DUBLIN
ALAMEDA COUNTY

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

1. **Site Location:** The Site is a 13.4-acre rectangular parcel, bordered on three sides by commercial property and on the west side by Alamo Canal. Across Alamo Canal from the Site is a single-family residential neighborhood.

The property currently consists of one 320-foot by 560-foot (180,000-square-foot) warehouse surrounded by asphalt-paved parking areas and a loading dock. An approximately 20-foot by 25-foot former chemical storage area is attached to the northwest corner of the warehouse. A gravel-filled trench (likely a French drain) extends along the northern and western edges of the warehouse, and leads to a culvert at the southwest corner of the Site, which drains into Alamo Canal. The Site is currently zoned for commercial/industrial use.

2. **Site History:** Western Electric Company leased and conducted telephone transmission equipment manufacturing at the Site from approximately 1970 to at least 1975 and possibly as late as 1979. Drawings for the Western Electric manufacturing facility, obtained from the City of Dublin, identify an aboveground storage tank (AST) on the west side of the warehouse as a "Trico" tank. A 1973 National Institute for Occupational Safety and Health (NIOSH) report "Health Hazard Evaluation/Toxicity Determination. Western Electric Company, Inc., Dublin, California" determined that vapors from trichloroethene (TCE) used at the printing wiring board processing area of the Site was toxic to workers at the concentrations and conditions at the time. When Western Electric Company vacated the property, the Trico AST and some of the piping between the AST and the building were left in place.

Chevron U.S.A., Inc., (Chevron) became the Site owner in 1980 and used the warehouse as a document- and file-storage facility. There is no information to indicate that Chevron used the warehouse or the AST for chemical storage, use, handling, production, recycling, or disposal. South of the warehouse is a paved area that was leased by Chevron to Gettler-Ryan, Inc. (Gettler-Ryan) from 1993 to 2007, who used it as a storage yard for their environmental consulting business, which included Chevron retail stations. According to a 2007 Phase I Environmental Site Assessment report, four 1,000-gallon ASTs located near the southeast corner of the Gettler-Ryan storage yard were used to store purged groundwater from Chevron retail stations that were undergoing remediation. The report stated the ASTs, as well as rusted drums which stored used granular activated carbon, did not have secondary containment, and the asphalt pavement beneath them contained significant cracks.

In 1996, Chevron contracted Ecology and Environment Inc. (E&E) to remove the former Trico AST and associated liquids/residue. E&E noted that the top of the AST was rusted, resulting in the accumulation of rainwater in the bottom of the AST, which had not escaped because the bottom of the tank appeared to be intact. E&E sampled the liquid and AST bottom solids and found trace quantities of TCE, along with TCE still in some of the piping between the AST and the warehouse.

In May 2008, Chevron sold the property to 6400 Sierra Court Investors, LLC. In September 2008, the new owner contracted Cornerstone Earth Group to perform a hot-spot removal by excavation (see Finding 7). Prior to excavation, the concrete cradles of the former AST were still present and Regional Water Board staff noted metal rust stains on the top and side of the cradles.

Alameda County Auction leased the parking area to the west of the warehouse from 2009 to 2012 for storing vehicles and holding its auctions. Dublin Honda and El Monte RV currently lease portions of the parking areas north and south of the warehouse for storing vehicles.

3. **Named Dischargers:** Chevron U.S.A., Inc. is named as a discharger because Chevron owned the property during a 16-year period (1980 to 1996) when the TCE AST and associated appurtenances were still present, contained TCE, and apparently were not maintained to prevent a discharge. Chevron either had knowledge or should have known (due to the presence of an AST) of the discharge or the activities that caused the discharge during this period, and had the legal ability to prevent the discharge.

Alcatel-Lucent USA, Inc. is named as a discharger because Alcatel-Lucent is the successor to Western Electric's liabilities for issues pertaining to Western Electric's tenancy. There is substantial evidence that Western Electric discharged pollutants to soil and groundwater at the Site. Such evidence includes use of TCE, the presence of TCE in an AST at the Site, and the presence of TCE and its breakdown products in soil, soil vapor and groundwater at the Site.

B.F. Saul Real Estate Investment Trust is named as a discharger because it owned the property during the time of the activity that resulted in the discharge (during Western Electric's tenancy), had knowledge of the discharge or the activities that caused the discharge, and had the legal ability to prevent the discharge.

6400 Sierra Court Investors, LLC, is named as a discharger because it is the current owner of the property on which there is an ongoing discharge of pollutants, it has knowledge of the discharge or the activities that caused the discharge, and it has the legal ability to control the discharge. 6400 Sierra Court Investors, LLC, will be responsible for compliance only if the Regional Water Board or Executive Officer finds that other named dischargers have failed to comply with the requirements of this order.

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 Regional Water Board will consider adding those parties' names to this order.

4. **Regulatory Status:** This Site is currently not subject to Regional Water Board order.

5. **Site Hydrogeology:** The Site is generally flat and paved. Adjacent to the property on the west is Alamo Canal. This canal is an unlined channel, under the jurisdiction of Zone 7 Water Agency, that drains several creeks in the vicinity and flows south to Arroyo de la Laguna, then into Alameda Creek through Niles Canyon and to San Francisco Bay. The Site is located in the Dublin Subbasin of the Livermore Valley Groundwater Basin.

Soils encountered in the upper 15 to 20 feet at the Site are typically clays and silts, with thin clayey sand, sand, and silt lenses more common below those depths. A coarser-grained unit lies between approximately 35 and 45 feet below ground surface (bgs). Below this unit lies an approximately 5-foot thick clay unit that is interpreted to separate two water-bearing zones, designated as the shallow and deep zones. Static water levels range from approximately 11.5 to 17 feet bgs. In general, local shallow-zone groundwater flows to the west, where it discharges into Alamo Canal. Groundwater in the deep zone locally flows to the north.

There are no known drinking water wells in the vicinity of the Site. However, the regional groundwater drains toward the south, where municipal water wells for the City of Pleasanton are located.

6. **Remedial Investigations:** Several investigations have been performed between 2007 and 2012, finding petroleum and solvent contamination in the following locations:

a. Former AST storage area and vicinity, south of the warehouse: Total petroleum hydrocarbons as diesel (TPH-d) in shallow soil and toluene and benzene in groundwater, all below Environmental Screening Levels (ESLs)

- b. Former TCE AST and adjacent areas under the warehouse: TCE and its breakdown byproducts cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride above ESLs, along with several other volatile organic compounds (VOCs) below ESLs, in soil, soil vapor, and groundwater
- c. Former chemical storage area on the northwest corner of the warehouse: TCE and several other VOCs in groundwater (but not in soil) below ESLs
- d. Alamo Canal downgradient (but not upgradient) of the Site: TCE and its breakdown byproduct cis-1,2-DCE in surface water below applicable ESLs
- e. Warehouse: TCE and its breakdown byproduct cis-1,2-DCE in indoor air samples below applicable ESLs

The maximum detected concentrations of contaminants of potential concern are listed by medium in the table below:

Analyte	Maximum Detected Concentration				
	Groundwater (µg/L)	Soil (mg/kg)	Soil Gas (µg/m ³)	Indoor Air (µg/m ³)	Surface Water (µg/L)
TCE	66,000	61	4,000,000	0.48	17
cis-1,2-DCE	2,400	9.3	210,000	0.41	3.2
trans-1,2-DCE	490	1.6	84,000	<0.72	<0.5
vinyl chloride	<0.5 - <50*	0.084	550,000	<0.047	<0.5 - <5.0*

* Elevated detection limits.

7. **Interim Remedial Measures:** In 2008, an area of approximately 35-feet by 40-feet beneath the former “Trico” AST was excavated to a maximum depth of 16 feet. The excavation was centered along the edge of the warehouse. This was a self-directed interim action performed on behalf of the current owner to help reduce the potential for vapor intrusion to indoor air, and not intended as a final remedy to address contaminated soil vapor, soil, and groundwater. The bottom of the excavation was backfilled with crushed rock overlain by a geotextile. This was covered with a concrete slurry. Inside the warehouse, this fill was topped with crushed rock and a vapor barrier prior to pouring a new concrete floor. Outside the warehouse, imported fill and asphalt pavement were placed on top of the controlled-density fill. Slotted PVC pipe was placed in the crushed rock at the bottom of the interior and exterior areas of the excavation and the top of the excavation inside the warehouse. These pipes were connected through risers to separate surface ports for potential future use in soil vapor monitoring and extraction.

In 2012, risers were used for soil vapor extraction from the bottom of the excavation. The TCE mass removal rate at startup was approximately 17.4 pound per day, but soon dropped to below one pound per day. From May 24 to October 12, 2012, the system

removed 68 pounds of TCE and 1.3 pounds of vinyl chloride. However, due to the decline in influent TCE concentration following startup and again after a carbon change out, full-time operation of the system was discontinued.

8. **Adjacent Sites:** There are no regulated cases adjacent to the Site.
9. **Screening Level Risk Assessment:** A screening-level evaluation was carried out to evaluate potential human health and environmental concerns related to identified soil, groundwater, and soil gas impacts. Chemicals evaluated in the risk evaluation include TCE, DCE, and vinyl chloride, the primary chemicals of concern identified at the Site.
 - a. **Screening Levels:** As part of the assessment, Site data were compared to ESLs compiled by Regional Water Board staff. The presence of chemicals at concentrations above the screening levels indicates that additional evaluation of potential threats to human health and the environment is warranted. Screening levels for groundwater address the following environmental concerns: 1) drinking water impacts (toxicity and taste and odor), 2) impacts to indoor air based on a commercial/industrial use scenario, and 3) migration and impacts to ecological receptors, specifically aquatic habitats associated with Alamo Canal. Screening levels for soil address: 1) direct exposure, 2) leaching to groundwater and 3) nuisance issues. Screening levels for soil gas address impacts to indoor air based on a commercial/industrial use scenario. Chemical-specific screening levels for other human health concerns (i.e., indoor-air and direct-exposure) are based on a target excess cancer risk of 1×10^{-6} for carcinogens and a target Hazard Quotient of 1.0 for non-carcinogens. Groundwater screening levels for the protection of aquatic habitats are based on promulgated surface water standards (or equivalent). Soil screening levels for potential leaching concerns are intended to prevent impacts to groundwater above target groundwater goals (e.g., drinking water standards). Soil screening levels for nuisance concerns are intended to address potential odor and other aesthetic issues.

b. Assessment Results:

Media / Constituent	Result of Screening Assessment*					
	Human Health – Direct Contact	Leaching to Ground-water	Vapor Intrusion to Indoor Air	Ecological Receptors - Aquatic Life	Drinking Water	Nuisance
Soil:						
TCE	X	X				
cis-1,2-DCE		X				
trans-1,2-DCE		X				
vinyl chloride						
Indoor Air:						
TCE						
cis-1,2-DCE						
trans-1,2-DCE						
vinyl chloride			**			
Soil Gas:						
TCE			X			
cis-1,2,-DCE						
trans-1,2-DCE						
vinyl chloride			X			
Groundwater:						
TCE			X	X	X	X
cis-1,2-DCE				X	X	
trans-1,2-DCE					X	X
vinyl chloride			**		**	
Surface Water:						
TCE					X	
cis-1,2-DCE						
trans-1,2-DCE						
vinyl chloride					**	

* "X" indicates that ESL for that particular concern was exceeded

** Elevated detection limits prevent accurate assessment.

c. Conclusions: The contaminants exceeding these screening level values should be addressed using a combination of remediation and risk management.

10. Feasibility Study/Remedial Action Plan:

A Feasibility Study/Remedial Action Plan (FS/RAP) dated July 1, 2013, considered remedial alternatives independently for the source area (around the former TCE AST), a canal barrier (to prevent/mitigate contaminant migration toward and into Alamo Canal), and the “Potential Second Source Area” (referring to the elevated TCE around the former Gettler-Ryan area).

For the source area, considered alternatives included no action, anaerobic reductive dechlorination, in-situ chemical oxidation, and electrical resistance heating. For the canal barrier, considered alternatives included no action, biowall, in-situ chemical oxidation, and anaerobic reductive dechlorination. Following an evaluation of alternatives, anaerobic reductive dechlorination was selected for the source area, and a biowall was selected for the canal barrier. In addition, anaerobic reductive dechlorination was proposed for the "Potential Second Source Area." The FS/RAP details the construction and injections required for implementation of the selected alternatives.

The source area will receive injections of diluted amendment solution and bioaugmentation solution at 15 locations in and around the former excavation area. The amendment solution will contain an electron donor (off-the-shelf materials such as EHC-L, 3D-Me, or proprietary lactate/cysteine mix). The bioaugmentation solution will be a mixed bacterial culture containing *Dehalococcoides*. Groundwater monitoring will be performed to assess the performance of the amendments. Additional amendment solution will be injected based on monitoring results (when total organic carbon <10 mg/L and solvents are still detected). The anticipated duration to attain cleanup levels is four to six years.

Groundwater monitoring was proposed to assess the performance of the biowall in treating contamination. General groundwater quality degradation and the generation of vapors as a result of the addition of amendments and bioamendments was not assessed or proposed as part of the remedial action plan. These may be specific concerns with respect to vapor intrusion to indoor air and discharges to Alamo Canal (e.g., generation of methane or hydrogen sulfide creating a health hazard or nuisance condition). The FS/RAP does not address the cleanup of VOCs present in soil vapor. As noted in Finding 7, soil vapor extraction was discontinued due to an abrupt decrease in influent TCE concentration about two weeks following startup and again after a carbon change out. This was the reason soil vapor extraction was excluded as a remedial option in the FS/RAP. However, the effectiveness of the system by the removal of 68 pounds of TCE was not assessed (soil vapor wells were not subsequently sampled to determine the residual concentrations of contaminants). In addition, soil vapor extraction was operated on a continuous basis and system optimization (e.g., cycling/pulsing) was not considered. Additional work will be required to address the unintended effects of the addition of amendments and bioamendments as noted above, as well as additional assessment of soil vapor extraction. The FS/RAP notes that an Underground Injection Control (UIC) permit will be filed with the Regional Water Board. However, the UIC permit is a federal permit. Regional Water Board approval for the injections proposed in the FS/RAP will be through this Site Cleanup Requirements (SCR) Order.

11. **Basis for Cleanup Levels**

- a. **General:** 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. 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. The cleanup levels established in this order are consistent with the maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial uses of such water, and will not result in exceedance of applicable water quality objectives. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

- b. **Beneficial Uses:** The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Water Board and approved by the State Water Resources Control Board, Office of Administrative Law and the U.S. EPA, where required.

Regional Water Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high total dissolved solids (TDS), low yield, or naturally-high contaminant levels. Groundwater underlying and adjacent to the Site qualifies as a potential source of drinking water.

The Basin Plan designates the following potential beneficial uses of groundwater underlying and adjacent to the Site:

- o Municipal and domestic water supply
- o Industrial process water supply
- o Industrial service water supply
- o Agricultural water supply
- o Freshwater replenishment to surface waters

At present, the only actual beneficial use of the groundwater underlying the site is freshwater replenishment to Alamo Canal.

The existing and potential beneficial uses of Alamo Canal include:

- o Groundwater recharge
 - o Water contact and non-contact recreation
 - o Wildlife habitat
 - o Cold freshwater and warm freshwater habitat
 - o Fish migration and spawning
- c. **Basis for Groundwater Cleanup Levels:** The groundwater cleanup levels for the Site are based on applicable water quality objectives and are the more stringent of EPA and California primary maximum contaminant levels (MCLs). Cleanup to this level will protect beneficial uses of groundwater and will result in acceptable residual risk to humans.
- d. **Basis for Soil Cleanup Levels:** The soil cleanup levels for the Site are based on protection of human health, ecological receptors, and to prevent leaching of contaminants to groundwater. For the contaminants of concern, the most stringent of these is the prevention of leaching to groundwater.
- e. **Basis for Soil Gas Cleanup Levels:** The soil gas cleanup levels for the Site are intended to prevent vapor intrusion into occupied buildings and will prevent unacceptable residual risk to humans.
- f. **Basis for Indoor Air Cleanup Levels:** The indoor air cleanup levels for the Site are intended to prevent unhealthy levels of VOCs in indoor air as a result of vapor intrusion.
12. **Future Changes to Cleanup Levels:** The goal of this remedial action is to restore the beneficial uses of groundwater underlying and adjacent to the Site. Results from other sites suggest that full restoration of beneficial uses to groundwater as a result of active remediation at the Site may not be possible. If full restoration of beneficial uses is not technologically nor economically achievable within a reasonable period of time, then the discharger may request modification to the cleanup levels or establishment of a containment zone, a limited groundwater pollution zone where water quality objectives are exceeded. Conversely, if new technical information indicates that cleanup levels can be surpassed, the Regional Water Board may decide that further cleanup actions should be taken.
13. **Risk Management:** The Regional Water Board considers the following human health risks to be acceptable at remediation sites: a cumulative hazard index of 1.0 or less for non-carcinogens and a cumulative excess cancer risk of 10^{-6} to 10^{-4} or less for carcinogens. The screening level evaluation for the Site found contamination-related risks in excess of these acceptable levels. Active remediation will reduce these risks over time. However, risk management measures are needed at the Site during (and possibly after) active remediation to assure protection of human health. Risk management measures may include engineering controls (such as engineered caps or wellhead treatment) and institutional controls (such as deed restrictions that prohibit certain land uses).

The following risk management measures are needed at the Site:

- a. During remediation: A risk management plan that notifies current and future owners of sub-surface contamination, prohibits the use of shallow groundwater beneath the Site as a source of drinking water until cleanup levels are met, and prohibits sensitive uses of the Site such as residences and daycare centers. The risk management plan shall include protocols for air monitoring, and soil/groundwater handling and disposal, as warranted by site use and remedial activities. The risk management plan shall also include protocols for the protection, operation and maintenance of any remedial system, including monitoring/extraction wells.
 - b. Post remediation (contingent upon whether remediation goals are achieved): A deed restriction that notifies future owners of sub-surface contamination and prohibits sensitive uses of the Site such as residences and daycare centers.
14. **Reuse or Disposal of Extracted Groundwater:** Regional Water Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from Site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.
 15. **Basis for 13304 Order:** Water Code section 13304 authorizes the Regional Water Board to issue orders requiring a discharger to cleanup and abate waste where 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.
 16. **Cost Recovery:** Pursuant to Water Code section 13304, the discharger is hereby notified that the Regional Water Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Water 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.
 17. **California Safe Drinking Water Policy:** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to be remediated such that maximum contaminant levels (designed to protect human health and ensure that water is safe for domestic use) are met in existing and future supply wells.
 18. **CEQA:** This action is an order to enforce the laws and regulations administered by the Regional Water 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.

19. **Notification:** The Regional Water Board has notified the discharger and all interested agencies and persons of its intent under Water Code section 13304 to prescribe Site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.
20. **Public Hearing:** The Regional Water Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to section 13304 of the Water Code, that the discharger (or its agents, successors, or assigns) shall clean up and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous substances in a manner that 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 that will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. CLEANUP LEVELS

1. **Groundwater Cleanup Levels:** The following groundwater cleanup levels shall be met in all wells identified in the attached Self-Monitoring Program and in any additional monitoring wells that may be installed as part of this Order:

Constituent	Level (µg/L)	Basis
Trichloroethene (TCE)	5	EPA Primary MCL
cis-1,2-Dichloroethene (DCE)	6	EPA Primary MCL
trans-1,2-DCE	10	EPA Primary MCL
Vinyl chloride	0.5	EPA Primary MCL

µg/L = microgram per liter

2. **Soil Cleanup Levels:** The following soil cleanup levels shall be met in all on-site vadose-zone soils.

Constituent	Level (mg/kg)	Basis
TCE	0.46	Leaching to Groundwater
cis-1,2-DCE	0.19	Leaching to Groundwater
trans-1,2-DCE	0.67	Leaching to Groundwater
Vinyl Chloride	0.032	Direct Exposure

mg/kg = milligram per kilogram

3. **Soil Gas Cleanup Levels:** The following soil gas cleanup levels shall be met in all on-site vadose-zone soils.

Constituent	Level ($\mu\text{g}/\text{m}^3$)	Basis
TCE	300	Human Health – Vapor Intrusion
cis-1,2-DCE	3,700	Human Health – Vapor Intrusion
trans-1,2-DCE	31,000	Human Health – Vapor Intrusion
Vinyl Chloride	16	Human Health – Vapor Intrusion

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

4. **Indoor Air Cleanup Levels:** The following indoor air cleanup levels shall be met in occupied on-site buildings.

Constituent	Level ($\mu\text{g}/\text{m}^3$)	Basis
TCE	0.59	Human Health - Inhalation
cis-1,2-DCE	7.3	Human Health - Inhalation
trans-1,2-DCE	63	Human Health - Inhalation
Vinyl Chloride	0.031	Human Health - Inhalation

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

C. TASKS

1. AMENDED REMEDIAL ACTION PLAN

COMPLIANCE DATE: July 1, 2014

Submit a workplan acceptable to the Executive Officer amending the FS/RAP to address the potential of general groundwater quality degradation, and human health and nuisance conditions for vapor intrusion to indoor air and discharges to Alamo Creek as a result of in-situ injection remedial actions as noted in Finding 10. The Amended FS/RAP shall include the following:

- a. An evaluation of general groundwater quality and the potential for the generation of vapors (volatile chemicals) as a result of the addition of amendments and bioamendments.
- b. Additional monitoring and contingency plan(s), based on this evaluation.
- c. An evaluation of soil vapor extraction effectiveness and system optimization.

The Amended FS/RAP shall describe all significant implementation steps and shall include an implementation schedule.

2. IMPLEMENTATION OF AMENDED REMEDIAL ACTION PLAN

COMPLIANCE DATE: 180 days after Executive Officer approval of Task 1 workplan

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 1, Amended Remedial Action Plan. Proposals for further system expansion or modification may be included in Self-Monitoring Program reports (see attached Self-Monitoring Program).

3. RISK MANAGEMENT PLAN

COMPLIANCE DATE: July 1, 2014

Submit a Risk Management Plan acceptable to the Executive Officer to address public awareness of sub-surface contamination and prohibits certain site uses until cleanup levels are met as noted in Finding 13.a. The Risk Management Plan shall include:

- a. Notifications to current and future owners of sub-surface contamination.
- b. Prohibition of the use of groundwater beneath the Site as a source of drinking water until cleanup levels are met.

- c. Prohibition of sensitive uses of the Site such as residences and daycare centers until cleanup levels are met.
- d. Protocols for air monitoring, and soil/groundwater handling and disposal, as warranted by site use and remedial activities.
- e. Protocols for the protection, operation and maintenance of any remedial system, including monitoring/extraction wells.

4. **RISK MANAGEMENT PLAN IMPLEMENTATION REPORT**

COMPLIANCE DATE: July 1, 2015 and every year thereafter

Submit a technical report acceptable to the Executive Officer documenting implementation of the Risk Management Plan over the previous 12-month period ending on May 30. The report should include a detailed comparison of Risk Management Plan elements and implementation actions taken. The report should provide a detailed discussion of any instances of implementation actions falling short of Risk Management Plan requirements, including an assessment of any potential human health or environmental effects resulting from these shortfalls. The report may be combined with a self-monitoring report, provided that the report title clearly indicates its scope. The report may propose changes to the Risk Management Plan, although those changes shall not take effect until approved by the Regional Water Board or the Executive Officer

5. **STATUS REPORT**

COMPLIANCE DATE: July 1, 2016, July 1, 2018, July 1, 2020 and every five years thereafter

Submit a technical report acceptable to the Executive Officer evaluating the effectiveness of the approved remedial action plan. The report should include:

- a. Summary of effectiveness in controlling contaminant migration and protecting human health and the environment, including the application and effectiveness of any contingency plan for in-situ remediation
- b. Comparison of contaminant concentration trends with cleanup levels
- c. Comparison of anticipated versus actual costs of cleanup activities
- d. Performance data (e.g., groundwater volume extracted, chemical mass removed, mass removed per million gallons extracted, if applicable)
- e. Cost effectiveness data (e.g., cost per pound of contaminant removed, if applicable)
- f. Summary of additional investigations (including results) and significant modifications to remediation systems

- g. Additional remedial actions proposed to meet cleanup levels (if applicable) including time schedule

If cleanup levels have not been met and are not projected to be met within a reasonable time, the report should assess the technical practicability of meeting cleanup levels and may propose an alternative cleanup strategy.

6. **PROPOSED DEED RESTRICTION**

COMPLIANCE DATE: 60 days after deed restriction required by Executive Officer

Submit a proposed deed restriction, acceptable to the Executive Officer, whose goal is to limit on-site occupants' exposure to Site contaminants to acceptable levels. The Executive Officer shall require a proposed deed restriction if the Task 5 status report concludes that cleanup goals will not be attained prior to potential future site use. The proposed deed restriction shall prohibit the use of shallow groundwater beneath the Site as a source of drinking water until cleanup levels are met, and prohibit sensitive uses of the Site such as residences and daycare centers (as applicable). The proposed deed restriction shall name the Regional Water Board as a beneficiary and shall anticipate that the Regional Water Board will be a signatory.

7. **RECORDATION OF DEED RESTRICTION**

COMPLIANCE DATE: 60 days after Executive Officer approval of the proposed deed restriction

Submit a technical report acceptable to the Executive Officer documenting that the deed restriction has been duly signed by all parties and has been recorded with the appropriate County Recorder. The report shall include a copy of the recorded deed restriction.

8. **PROPOSED CURTAILMENT**

COMPLIANCE DATE: 60 days prior to proposed curtailment

Submit a technical report acceptable to the Executive Officer containing a proposal to curtail remediation. Curtailment includes system closure (e.g., well abandonment), system suspension (e.g., cease injection but wells retained), and significant system modification (e.g., major reduction in injection rates). The report should include the rationale for curtailment. Proposals for final closure

should demonstrate that cleanup levels have been met, contaminant concentrations are stable, and contaminant migration potential is minimal.

9. **IMPLEMENTATION OF CURTAILMENT**

COMPLIANCE DATE: 60 days after Executive Officer approval of proposed curtailment

Submit a technical report acceptable to the Executive Officer documenting completion of the tasks identified in Task 8.

10. **EVALUATION OF NEW HEALTH CRITERIA**

COMPLIANCE DATE: 90 days after evaluation report required by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating the effect on the approved remedial action plan of revising one or more cleanup levels in response to revision of drinking water standards, maximum contaminant levels, or other health-based criteria.

11. **EVALUATION OF NEW TECHNICAL INFORMATION**

COMPLIANCE DATE: 90 days after evaluation report required by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating new technical information which bears on the approved remedial action plan and cleanup levels for the Site. In the case of a new cleanup technology, the report should evaluate the technology using the same criteria used in the feasibility study. Such technical reports shall not be required unless the Executive Officer determines that the new information is reasonably likely to warrant a revision in the approved remedial action plan or cleanup levels.

12. **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 promptly notify the Executive Officer, and the Regional Water Board may consider revision to this Order.

D. PROVISIONS

1. **No Nuisance:** The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in Water Code section 13050(m).
2. **Good O&M:** 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 Water Code section 13304, to the Regional Water Board for all reasonable costs actually incurred by the Regional Water 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 Water 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 Water Code section 13267(c), the discharger shall permit the Regional Water 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 Regional Water Board using approved U.S. EPA methods for the type of analysis to be performed. Quality assurance/quality control (QA/QC) records shall be maintained for Regional Water Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g., temperature).
8. **Document Distribution:** An electronic and paper version of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the Regional Water Board, and electronic copies shall be provided to the following agencies:
 - a. City of Dublin, Public Works Department
 - b. County of Alameda Department of Environmental Health
 - c. Zone 7 Water Agency

The Executive Officer may modify this distribution list as needed.

Electronic copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be uploaded to the State Water Board's GeoTracker database within five business days after submittal to the Regional Water Board. Guidance for electronic information submittal is available at:

http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal

9. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in contact information, 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 Water Board by calling (510) 622-2369.

A written report shall be filed with the Regional Water 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 California Emergency Management Agency required pursuant to the Health and Safety Code.

11. **Secondarily-Responsible Discharger:** Within 60 days after being notified by the Executive Officer that other named dischargers have failed to comply with this order, 6400 Sierra Court Investors, LLC, shall then be responsible for complying with this order.
12. **Periodic SCR Review:** The Regional Water Board will review this Order periodically and may revise it when necessary.

I, Bruce H. Wolfe, 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 _____.

Bruce H. Wolfe
Executive Officer

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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: Site Map
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

CHEVRON U.S.A., INC.,
ALCATEL-LUCENT USA, INC.,
B.F. SAUL REAL ESTATE INVESTMENT TRUST, AND
6400 SIERRA COURT INVESTORS, LLC

for the property located at

6400 SIERRA COURT
DUBLIN
ALAMEDA COUNTY

1. **Authority and Purpose:** The Regional Water Board requires the technical reports identified in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Regional Water Board Order No. **XX-XXX** (site cleanup requirements).
2. **Monitoring:** The discharger shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following table:

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
MW-1	Q	8260B	MW-2a	Q	8260B
MW-2	Q	8260B	MW-4a	Q	8260B
MW-3	Q	8260B	OW-1	Q	8260B
MW-4	Q	8260B	OW-2	Q	8260B
MW-5	Q	8260B	OW-3	Q	8260B
MW-1a	Q	8260B			

Key: Q = Quarterly 8260B = EPA Method 8260B or equivalent

This monitoring is in addition to monitoring required for the implementation of the amended feasibility study/remedial action plan. However, this monitoring may be performed in conjunction with these requirements as applicable.

The discharger shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above 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 Regional Water Board no later than 30 days following the end of the quarter (e.g., report for first quarter of the year due April 30). The first quarterly monitoring report shall be due on April 30, 2014. 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.
 - 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. Historical groundwater sampling results shall be included in each report. 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, shall be included in electronic format only.
 - 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 quarter. 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 quarter. Historical mass removal results shall be included in the fourth quarterly report each year.
 - e. **Status Report:** The quarterly report shall describe relevant work completed during the reporting period (e.g., Site investigation, interim remedial measures) and work planned for the following quarter.

5. **Violation Reports:** If the discharger violates requirements in the Site Cleanup Requirements, then the discharger shall notify the Regional Water Board office by telephone as soon as practicable once the discharger has knowledge of the violation. Regional Water 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.
6. **Other Reports:** The discharger shall notify the Regional Water 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.
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.