

December 28, 2010

Karen Toth  
Department of Toxic Substances Control Board  
700 Heinz Street, Suite 200  
Berkeley, CA 94710



Subject: Conditional Approval of Remediation Work Plan  
64<sup>th</sup> Street and Christie Avenue, Emeryville

Attached to this letter is the City of Emeryville's Conditional Approval of the revised draft Remediation Work Plan (RWP) prepared by PES Environmental (PES, 2010bb) for the proposed 64<sup>th</sup> and Christie Residential Building located southwest of the intersection of 64<sup>th</sup> Street and Christie Avenue in Emeryville. The Site will be remediated and redeveloped by Rockwood Christie LLC (Property Owner).

To assist in the beneficial redevelopment of this Site, the Emeryville Redevelopment Agency advises that pursuant to its authority under the Polanco Redevelopment Act (California Health and Safety Code Section 33459 et seq.) and consistent with Section 33459.3(e)(2), the Emeryville Redevelopment Agency and the Property Owner have entered into an Owner Participation Agreement dated October 19, 2010. As provided in the Owner Participation Agreement, the Property Owner is required to remedy the hazardous substance release at this Site; the RWP delivered under separate cover by PES, the Property Owner's environmental consultant, serves as the basis for the required remediation.

This Conditional Approval summarizes the site background, proposed redevelopment plan, soil and groundwater investigations, cleanup plan, and conditions and recommendations. The Property Owner has cooperated in the development of the RWP. The revised draft RWP incorporates comments from you that were transmitted via email on June 14, 2010 and December 20, 2010, and the RWP is consistent with DTSC clean-up guidelines. Your email dated December 22, 2010 stated that the incorporated changes are fine.

The Conditional Approval is based on the data submitted to date for the property and with the provision that data and information provided to the City are accurate and representative of Site conditions. If additional information or data indicate that the data included herein are not representative of Site conditions, additional mitigation measures may be required. This Conditional Approval applies only to the RWP and planned use of the Site included herein and not to any other site development.

Sincerely,

A handwritten signature in black ink, appearing to read "Susan G. Colman", written in a cursive style.

Susan G. Colman, Site Manager for City of Emeryville

cc: Donna Drogos, Alameda County    Helen Bean, Emeryville  
Michael Biddle, Emeryville        Markus Niebanck, Emeryville  
Will Mast, PES                        Nicholas Targ, Holland & Knight

## **CONDITIONAL APPROVAL OF REMEDIATION WORK PLAN FOR 64<sup>TH</sup> STREET AND CHRISTIE AVENUE, EMERYVILLE**

### **BACKGROUND**

The draft Remediation Work Plan (RWP) prepared by PES Environmental, Inc. (December 2010b) is for the two parcels, 6340 and 6390 Christie Avenue, located southeast of the intersection of 64<sup>th</sup> Street and Christie Avenue in Emeryville (the Site). The RWP summarizes the historical uses of the Site and the results of soil and groundwater investigations, and describes the planned remedial activities. This Conditional Approval refers to tables, figures, and appendices to the RWP.

The Site is located southeast of the intersection of 64<sup>th</sup> Street and Christie Avenue in the City of Emeryville, California (Plates 1 and 2 in the RWP). The Site is bounded by the Bay Center Apartments on the north across 64<sup>th</sup> Street, a theater on the east, a parking lot for the Emery Bay Marketplace on the south, and the Avenue64 multi-family residential development on the west across Christie Avenue. The Site is approximately 1.2 acres and is located in a neighborhood consisting of commercial and residential properties (PES, 2010b). An approximately 14,400-square foot commercial building and parking lot is located on the 6340 Christie parcel, and an approximately 12,000-square foot commercial building and parking lot is located on the 6390 Christie parcel.

The Site is currently owned by Rockwood Christie LLC and the development manager is TMG Partners. Previous occupants of 6340 Christie Avenue included industrial machinery warehousing in the 1960s and Lerer Brothers Transmission Service from 1980 through 1998 (PES, 2010). In 1988, a 2,000-gallon gasoline underground storage tank was removed from the southeast corner of the parcel (Plate 4 in the RWP). The former tank is under the jurisdiction of the Alameda County Department of Environmental Health.

Previous occupants in the western portion of the building at 6390 Christie Avenue included a tool warehouse (dates unknown), Sybase (1989 to 1994), and Inter-Tel Technologies (1994 to present) (PES, 2010b). Previous occupants in the eastern portion of the building included a photo lab, an advertising firm, Dictaphone, and a software developer (PES, 2010b).

### **PROPOSED REDEVELOPMENT PLAN**

Redevelopment plans consist of demolition of the existing structures and removal of all existing pavement, and construction of a new five-story wood-framed building that will cover nearly the total area of the Site (Plate 3 in the RWP) (PES, 2010b). The lowest level will be a subgrade parking garage. The ground level will consist of additional parking, a leasing office, and residential units. Ground-level units will be situated above the subgrade parking level; no residential areas will be situated directly on soil. There will be four levels of residential units above the ground-level floor (PES, 2010b).

Excavation of soil to depths ranging from 11 to 15 feet bgs will be required to construct the subgrade parking garage. The floor of the subgrade parking level will be at approximately 10 feet bgs. The footprint of the subgrade parking level, which encompasses the majority of

the Site, is shown in plan view and in cross-section on Plate 3 of the RWP (PES, 2010b). Based on the proposed depth of development and shallow groundwater conditions, the concrete floor slab and subgrade basement walls will have a water-proofing barrier. The lower garage level will be mechanically ventilated.

## **SOIL AND GROUNDWATER INVESTIGATIONS**

Soil and groundwater investigation activities were conducted from 1988 through 1999 pertaining to the former underground storage tank at the 6340 Christie parcel, and soil, groundwater, and soil gas samples were collected by PES in 2004. Sampling locations are shown on Plate 4 and constituents of potential concern in soil, groundwater, and soil gas are shown on Plates 5a, 5b, and 5c, respectively, in the RWP (PES, 2010b).

### **Screening Criteria**

For screening purposes, concentrations of constituents in soil are compared to the Water Board Environmental Screening Levels (ESLs; updated May 2008) for direct exposure to soil under a residential exposure scenario (Table K-1; hazard quotient [HQ] = 1 for non-carcinogens), leaching ESLs for drinking water and non-drinking water (ESL Table G), California Human Health Screening Levels (CHHSLs), and U.S. EPA Region IX residential screening levels (updated September 2008). Concentrations of constituents in groundwater are compared to ceiling level ESLs for drinking water and non-drinking water (Tables I-1 and I-2), drinking water ESLs based on toxicity (Table F-3), ESLs for the evaluation of vapor intrusion concerns (ESL Table E-1), and California and federal maximum contaminant levels (MCLs). The screening criteria are included in Tables 1 through 4 in the RWP (PES, 2010b).

### **Results of Soil Sampling**

Table 1 in the RWP presents the analytical results in soil for total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tert-butyl ether (MTBE), volatile organic compounds (VOCs), and polychlorinated biphenyls (PCBs). Samples were collected from approximately 2 to 7 feet bgs. The results for five metals (cadmium, total chromium lead, nickel, and zinc) are presented in Table 2 in the RWP.

TPH as diesel (TPHd), MTBE, VOCs, and PCBs were not detected in soil samples collected at either of the two parcels. TPH as motor oil (TPHmo), TPH as gasoline (TPHg), toluene, ethylbenzene, xylenes, cadmium, and lead exceeded the ESLs in a few soil samples collected at the Site (Tables 1 and 2 in the RWP).

### **Results of Groundwater Sampling**

The analytical results for groundwater samples are presented in Table 3 in the RWP. The sampling consisted of collecting grab groundwater samples (in 1998, 1999, and 2004) and collecting samples from developed monitoring wells (five times in 1999). Concentrations of TPHg and BTEX decreased significantly in groundwater samples collected from 1998 to 2004. In the 2004 samples, TPHd, TPHmo, TPHg, and benzene exceeded one or more of the ESLs (Table 3 in the RWP)(PES, 2010b).

### **Results of Soil Gas Sampling**

VOC and TPH concentrations exceeded the ESLs for the evaluation of vapor intrusion

concerns (Table 4 in the RWP) in several samples collected at the 6340 Christie parcel, but not at the 6390 Christie parcel.

### **Methane**

In 2004, nine shallow soil vapor samples were collected outside the buildings at depths of approximately 2 to 3 feet bgs. Methane concentrations ranged from 0.2 to 85 percent (PES, 2010b). The origin of the methane may be due to the breakdown of marsh vegetation and petroleum hydrocarbons in soil and groundwater (PES, 2010b). In Emeryville, mitigation of methane is addressed during construction planning and design with the oversight of the City Building and Fire Departments. As such, mitigation of methane is not part of the RWP.

### **REMEDIAL GOALS**

TPHd, TPHg, toluene, ethylbenzene, xylenes, cadmium, and lead exceeded the ESLs in a few soil samples (Tables 1 and 2 in the RWP). Groundwater was encountered between 4 and 7 feet bgs across the Site. Because 11 to 15 feet of soil will be excavated from the entire footprint of the building to construct the subgrade parking garage, the majority of vadose-zone soil will be removed from the Site. However, soil may be excavated to depths ranging from 2 to 4 feet bgs along some of the exterior building perimeter for geotechnical and/or landscaping purposes. In these areas, the remedial goals will be the residential direct exposure ESLs, which are shown in Tables 1 and 2 of the RWP (PES, 2010b). The remedial goals will apply to any other areas where vadose-zone soil is left in place, for example, if groundwater levels are lower at the time of construction resulting in the presence of vadose-zone soil.

Concentrations of TPHd, TPHmo, TPHg, and benzene in grab groundwater samples collected in 2004 exceeded one or more of the ESLs (Table 3 in the RWP; PES, 2010b). However, the extent of impacts has not been fully defined. Therefore, a pre-excavation investigation will be conducted to evaluate shallow groundwater conditions. Because planned soil excavation will extend to and below the water table, it is not anticipated that sources of contamination will remain that would have the potential to degrade groundwater quality beneath the Site. Therefore, remedial goals for groundwater were not developed. Following excavation for the subgrade garage, additional localized excavation will be conducted, as needed, to remove contaminated soil that may be present in the saturated zone and that have the potential to continue to act as an on-site source of groundwater contamination. Areas for additional excavation will be based on information derived from the pre-excavation investigation and observations during soil excavation.

### **REMEDIAL PLAN**

The remedial plan consists of excavation of 11 to 15 feet of soil and disposing of the soil in appropriate off-site landfills or re-used off-site. In addition, a subgrade parking garage will be constructed using a podium design in conformance with ASTM E 2600-08 for intrinsically-safe designs to mitigate for vapor intrusion, and with a water-proof barrier to mitigate for groundwater infiltration.

Prior to implementation of the remediation, a pre-excavation investigation will be conducted to collect soil data to pre-profile the soil for appropriate disposal or off-site re-use, and characterize shallow groundwater conditions.

The RWP lists the permits that will be obtained prior to implementation of remediation, outlines the storm water pollution prevention plan, and provides a site health and safety plan.

The soil excavation activities are described in the RWP, including general excavation equipment and procedures, loading, dust control procedures, decontamination, stockpiling if necessary, soil classification and management, soil hauling, and off-site disposal.

Verification samples will be collected where vadose-zone soil remains in place along the perimeter or due to lower groundwater elevations at the time of remediation. One sidewall sample for every 3 feet of depth and every 25 linear feet will be collected from the principal excavation area, and one bottom sample will be collected per 1,000 square feet of remaining vadose-zone soil. A full suite of constituents will be analyzed for in the verification samples because many of the constituents were not analyzed for in previous soil samples. Should the results of verification samples indicate that remedial goals have not been met, additional excavation shall be performed to the extent practicable.

### **SUMMARY, CONDITIONS, AND RECOMMENDATION**

Several constituents exceeded ESLs in soil at the Site. Therefore, soil remediation will be implemented by excavation and off-site disposal. In addition to the work outlined in the RWP, the following conditions have been established by the City as part of this Conditional Approval:

1. Remediation work will be scheduled with the City to allow periodic Site visits.
2. The Site contractor shall notify the City immediately of discovery of any unexpected hazardous materials found during remediation activities and during construction of the development and shall provide procedures for sampling, analysis, and removal, if warranted.
3. If any impacted soil or groundwater remains on site, final soil and groundwater data and a site map will be submitted to the City in electronic format after the completion of the remediation activities. Institutional controls to restrict use of the portion of the property where constituents remain on site above remedial goals shall be attached to the property deed.

This Conditional Approval is based on the data submitted to date for the Site and with the provision that the information and data provided to the City are accurate and representative of Site conditions. If this assumption is determined to be erroneous at some point in the future or additional information indicates that the data included herein are not representative of Site conditions, the City, DTSC, Water Board, or other appropriate regulatory agency may reopen the Site for regulatory review and action, including requiring additional mitigation measures, as warranted. This Conditional Approval applies only to the RWP and the planned use of the Site included herein and not to any other site development.

Prior to implementation, a fact sheet will be mailed to residents and businesses within at least 300 feet of the Site and a notification will be published in the Oakland Tribune of the availability of the Conditional Approval and RWP for review and comment. A 30-day public comment period will be provided, and a public meeting will be held.

## **REFERENCES**

California Regional Water Quality Control Board, San Francisco Region, 1999, East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Final Report, July.

California Regional Water Quality Control Board, San Francisco Region, 2008, Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, Environmental Screening Levels Surfer, Interim-Final, May.

PES Environmental, Inc., 2010a, Draft Remediation Work Plan, Proposed 64<sup>th</sup> and Christie Building, 6340 and 6390 Christie Avenue, Emeryville, California, November 8.

PES Environmental, Inc., 2010b, Draft Remediation Work Plan, Proposed 64<sup>th</sup> and Christie Building, 6340 and 6390 Christie Avenue, Emeryville, California, December 27.