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Alameda County  
Environmental Health

September 29, 2008

Mr. Kevin Zwick  
Affordable Housing Associates  
1250 Addison Street, Suite G  
Berkeley, California 94702

RE: Request for Regulatory Closure  
160 14<sup>th</sup> Street, Oakland, California  
*ACC Project No. 6179-014.04*

Dear Mr. Zwick:

ACC Environmental Consultants, Inc., (ACC) has prepared this letter requesting regulatory closure for the former underground storage tank (UST) located at 160 14<sup>th</sup> Street, Oakland, California (Site). Based on previous subsurface investigations and remediation performed to date, ACC believes that criteria summarized in the San Francisco Bay Regional Water Quality Control Board's December 8, 1995 *Memorandum Interim Guidance on Required Cleanup at Low-Risk Fuel Sites*, have been satisfied. On your behalf, a copy of this Request for Regulatory Closure will be forwarded to Mr. Hernan E. Gomez, Hazardous Materials Inspector of the City of Oakland Fire Department, Fire Prevention Bureau for evaluation of regulatory closure.

### **Project Summary**

The Site is located at 160 14<sup>th</sup> Street, Oakland, California (Figures 1 and 2). One 10,000-gallon gasoline, one 6,000-gallon gasoline and one 550-gallon waste oil underground storage tank (UST) were reportedly removed from the Site in May 1986 in relation to the dismantling of a Mobil gasoline service station. A soil sampling report prepared by Blaine Tech Services on May 8, 1986 indicated that the soil samples collected from the excavation were below laboratory detection limits for total petroleum hydrocarbons as gasoline (TPHG) and waste oil. Based on the laboratory results, Mobil Corporation considered the issue to be closed, but no closure letter was issued.

At the Client's request, ACC performed a subsurface investigation on July 23, 2001 to evaluate residual soil contamination from the former gasoline service station and possible impacts from an adjacent dry cleaning establishment. The results of this investigation were reported in ACC's *Soil Boring investigation Report* dated August 2001. Results of the investigation showed: 1) low concentrations of residual petroleum hydrocarbons localized in fine-grained soils from 8 to 12 feet belowground surface

which, do not warrant remediation or additional site investigation; and (2) Minor tetrachloroethene (PCE) concentrations in groundwater beneath the subject property which likely originate from the dry cleaners immediately adjacent to the subject property. Based on these results, the report recommended that the subject property be evaluated for regulatory case closure.

At the request of the client, ACC advanced six soil borings on the subject property in April 2006. Results of this investigation indicated that: (1) Relatively minor concentrations of total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, toluene, and ethylbenzene (BTEX), and methyl tert butyl ether (MTBE) were present in soil that is scheduled to be excavated as part of site redevelopment activities; (2) Elevated TPHG and BTEX concentrations were present in groundwater in the vicinity of the former UST excavation but which attenuate rapidly with distance from this suspect soil source area; (3) Elevated PCE concentrations were present in groundwater along the northwest end of the subject property, likely originating from the dry cleaners immediately adjacent to the subject property; (4) Dewatering, if required during site development, would serve the dual purpose of successfully lowering the groundwater table below the depth of scheduled soil excavation and of removing residual petroleum hydrocarbon concentrations in the groundwater; (5) Based on anticipated soil and groundwater removal during site development, the proposed foundation vapor barrier, and no future inhabited living space on the ground story, there is no significant human health risk to future occupants following site development; and (6) Additional mitigation measures should not be required to proceed with approved site development.

The letter report, "*Summary of Soil Characterization Activities*" dated May 2007, prepared by ACC on behalf of the Client, states that "Residual petroleum hydrocarbon concentrations in excavation sidewall soil samples were weathered, contained little or no BTEX and do not represent a human health risk."

The design of the existing structure called for the installation of a below-slab vapor barrier. According to information provided to ACC by the Client, a Stego® Wrap 15-mil Class A vapor barrier was installed prior to the installation of the slab-on-grade for the parking garage and the ground floor commercial spaces (there are no residential units on the ground floor). The barrier was installed at the suggestion of the City of Oakland Fire Department due to small amounts of dry cleaning solvents found in the soil at the site. At the beginning of the site development, approximately 6,528 tons of soil were excavated and removed from the site. The vapor barrier was installed following site preparation but prior to the installation of the slab. In addition, a bentonite waterproofing barrier (Volclay Voltex DS) was installed in the below grade parking garage lift area. On September 15, 2006, a representative from Applied Materials & Engineering, Inc. inspected the installation of the Voltex DS and determined that the installation was conducted in compliance with manufacturer recommendations.

## **RECOMMENDATIONS**

ACC believes that criteria for regulatory closure have been met and recommends that the Site be evaluated for regulatory closure. It is ACC's opinion that, since the site has been redeveloped, a

vapor barrier and bentonite waterproofing barrier have been properly utilized and installed and over 6,528 tons of soil were removed from the site around the area of the USTs, the presence of the former USTs at this site are no longer an issue and that regulatory case closure should be granted.

## **CLOSURE CRITERIA**

ACC requests that the Site be evaluated for regulatory site closure relative to the former Site USTs. It is ACC's opinion that criteria for case closure has been satisfied and that the Site qualifies as a "low risk groundwater case." Sources of ongoing impact to soil and groundwater have been removed and continued improvement in groundwater quality can be expected naturally in a reasonable timeframe.

### **#1 - The source has been removed.**

While some residual petroleum hydrocarbons may still be present in subsurface soils, approximately 6,528 tons of soil were removed and disposed offsite as part of the re-development of the site. Continued groundwater monitoring events indicate that no significant sources currently exist at the Site and that remedial soil removal was highly effective at removing residual sources of petroleum hydrocarbon impact to groundwater.

### **#2 - The site has been adequately characterized.**

ACC believes that the Site has been adequately characterized to evaluate the migration potential and concentration of residual petroleum hydrocarbons in subsurface soil and groundwater. Subsurface conditions appear to have been adequately characterized and monitoring well placement has been adequate to obtain necessary groundwater trends during periodic groundwater sampling events. Residual petroleum hydrocarbon concentrations are expected to continue to decrease due to natural attenuation processes occurring in soil and groundwater at the Site.

### **#3 - The dissolved hydrocarbon plume is not migrating.**

There is no evidence that a hydrocarbon plume exists at this site.

### **#4 - No water wells or other sensitive receptors are likely to be impacted.**

Based on periodic groundwater monitoring results, petroleum hydrocarbon impacts in groundwater do not extend beyond the Site property boundary. A well survey has not been performed; however, no known downgradient wells or sensitive receptors are likely to be impacted by the relatively small plume of impacted groundwater. In addition, areas downgradient of the Site are commercial for a minimum of 300 feet and municipal water is supplied to the area.

**#5 - The site presents no significant risk to human health.**

Soil sampling has demonstrated that no significant petroleum hydrocarbon concentrations exist in soil in the original source area. Concentrations of benzene in soil are minor or nondetectable and dissolved benzene in groundwater approximates drinking water maximum contaminant levels (MCLs). Petroleum hydrocarbon impacts in groundwater are limited primarily to shallow groundwater present at approximately 12 feet bgs; this shallow groundwater is rarely if ever utilized. Since groundwater is not utilized in the vicinity of the Site, no complete exposure pathways exist between minor residual petroleum hydrocarbons and potential receptors.

**#6 - The site presents no significant risk to the environment.**

Due to the location of the Site, the fact that the site has been re-developed, the installation of a vapor barrier under the building slab, limited horizontal extent of impact in shallow groundwater, and relatively low concentrations of residual petroleum hydrocarbons, no significant environmental risks are expected. Since natural attenuation trends have been demonstrated, there is no reasonable expectation that these conditions will change or that environmental risk will increase in the future.

On behalf of Affordable Housing Associates, ACC requests that the Site be formally evaluated for full regulatory closure relative to the former USTs and that a finding of no further action be approved.

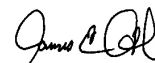
Thank you for your time and consideration. If you have any questions, please call me at (510) 638-8400, extension 108 or email me at [ssouthern@accenv.com](mailto:ssouthern@accenv.com).

Sincerely,



Stephen Southern, REA I, CAC  
Senior Project Manager

Reviewed By:



James E. Gribi, PG  
Senior Geologist

Attachment

cc: Mr. Hernan E. Gomez, OFD