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Alameda County
Environmental Health

September 23, 2009

Ms. Donna L. Drogos, P.E.
Supervising Hazardous Materials Specialist
Alameda County Health Agency-Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

**Subject: Work Plan to Evaluate a Pipeline Leak, Remove Affected Soil, Replace the Pipeline, and Restore the Area to its Original Condition
Federal Building 2C
620 Central Avenue
Alameda, California**

Dear Ms. Drogos:

ENV America Incorporated (ENV America) is pleased to submit this work plan to evaluate a hydraulic fluid leak associated with the elevator at Federal Building 2C located at the Federal Center in Alameda, California (Site) on behalf of the U.S. General Services Administration (GSA).

GSA reported this leak to the Office of Emergency Services on September 14, 2009 after having an unanticipated release of the elevator hydraulic fluid at the Site. Based on further investigation it was found that approximately 50 gallons of hydraulic fluid that is stored in the hydraulic fluid storage tank for the elevator had leaked. Tests were performed by others to evaluate which portion of the elevator piping was leaking. By using a combination of pressure testing and isolating various sections of the hydraulic line, it was determined that the underground hydraulic line was leaking and not the elevator piston.

On September 15, 2009 members of ENV America and GSA visited the Site to visually assess the proposed work area and recommend an approach for evaluating the pipeline leak, remediating the Site if required, and replacing the pipeline with double containment piping. The following describes the recommended scope of work for this project.

Scope of Work

The scope of the project is to remove concrete, asphalt, and soil to expose the hydraulic fluid pipeline, visually identify the location of the hydraulic fluid pipeline leak, drain any remaining hydraulic oil from the line and the hydraulic tank, remove the pipeline, remove soil affected by hydraulic fluid, collect confirmation soil samples, test groundwater (if



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encountered), replace the pipeline with a double containment pipeline, backfill the area, and repave the disturbed areas to match existing conditions.

Prior to conducting fieldwork, the following activities will be performed:

- This work plan will be submitted for regulatory approval prior to proceeding with the excavation;
- A Site specific health and safety plan will be prepared describing the possible hazards associated with the work as well as providing the location of the nearest emergency medical facility and emergency contact numbers;
- Underground Service Alert, a regional utility notification center, will be notified at least 48 hours prior to the start of excavation; and
- A private utility locator will clear the work area for subsurface utilities.

A California licensed contractor will perform the excavation work either after hours during the week or on weekends. Prior to excavation, asphalt and concrete will be saw cut to allow access to the subsurface material. The asphalt and concrete will be removed using either a jackhammer and hand tools or a small excavator or backhoe. Removed asphalt and concrete will be taken off-Site for recycling. Once the asphalt and concrete are removed, the overburden soil will be removed to expose the hydraulic fluid pipeline. It has been assumed that this pipeline is not greater than 48 inches below ground surface (bgs).

Prior to removing the pipeline, the remaining hydraulic fluid in the pipeline and hydraulic tank will be drained and contained in 55-gallon steel drums. The pipeline will be inspected for the leak location and removed. A soil sample will be collected at the leak area for laboratory analysis. Stained soil will be excavated and placed in a 20-yard soil bin pending analytical results for proper disposal.

After the hydraulic fluid affected soil has been removed, and with concurrence of the regulatory oversight agency, ENV America will collect confirmation samples from the bottom of the excavation. Samples will be collected as directed by the regulatory agency or from the area of the leak, at pipeline joints, or at 20-foot intervals. If water is present in the excavation, soil will be collected above the water table.

If groundwater is present within the excavation, a sample of the groundwater will be collected.

Soil samples will be collected in glass jars or brass or stainless steel sleeves capped with Teflon and end caps. Water samples will be collected in laboratory provided sample bottles. Collected soil and water samples will be uniquely labeled, placed in an ice-filled cooler, and transported under chain-of-custody to a state of California analytical laboratory for analysis. Soil and water samples will be analyzed for:

- Total petroleum hydrocarbons (TPH) quantified as hydraulic oil in accordance with Environmental Protection Agency (EPA) method 8015M.



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For disposal purposes, it is assumed that one four-point composite sample will be collected from the soil bin and analyzed for:

- TPH quantified as gasoline, benzene, toluene, ethyl benzene, and xylenes in accordance with EPA method 8260B;
- TPH quantified as diesel, motor oil, and hydraulic fluid in accordance with EPA method 8015M; and
- LUFT 5 metals in accordance with EPA method 6010B.

Prior to leaving the Site at the end of the work day, the contractor will secure the trench/excavation area within the street with traffic rated steel plates, and other areas will be barricaded and caution taped to prevent access. The contractor will leave the area clean and free of debris.

Once confirmation sample results indicate that affected soil has been removed to the cleanup standard, the contractor will begin backfilling and compacting the excavation. At the appropriate elevation, a new hydraulic fluid pipeline will be installed within secondary containment piping. It is assumed a two-inch diameter black iron pipe will be placed within fiberglass secondary containment. Once the pipeline is in place a pressure test of both the primary and secondary containment pipeline will be performed. The new pipeline will be encased in sand or gravel fill followed by concrete, and by asphalt in the road portion of the Site.

Documentation

During field activities ENV America will direct all subcontractors, take detailed field notes and photodocument the work. ENV America will prepare a report documenting the work performed and the results. The report will be submitted to the Alameda County Health Agency-Department of Environmental Health (ACEH) documenting the work performed, the results of analytical testing, and recommend additional work or request no further action related to the hydraulic fluid leak.

Project Schedule

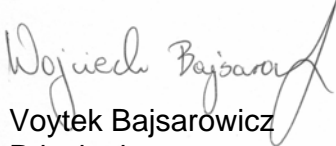
ENV America is prepared to commence field work on this project on receiving approval of this work plan from ACEH. We anticipate that the excavation work can be performed during the week of September 28, 2009 pending your authorization to proceed. We estimate the project including the excavation, pipeline removal, sampling, pipeline replacement, and backfilling and returning the Site to original condition to take approximately two weeks. A report can be provided to ACEH within approximately two weeks after the completion of the work.



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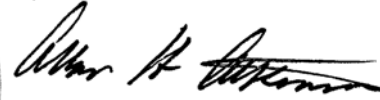
ENV America appreciates the opportunity to provide you with this work plan. If you have any questions or require any additional information, please do not hesitate to contact us anytime at (415) 989-9933.

Sincerely,
ENV America Incorporated



Wojciech Bajsarowicz

Voytek Bajsarowicz
Principal



Allan H. Atkinson, PG
Principal

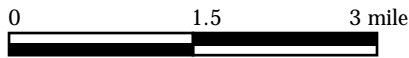
Attachments:
Figure 1 – Site Location Map
Photos

pc: Carolyn Cooley, General Services Administration
Ando Merendi, General Services Administration

FIGURE



USGS Map sourced from TOPOI, National Geographic Software



APPROXIMATE SCALE



Approximate Site Location



ENV AMERICA
 ENVIRONMENTAL ENGINEERING,
 CONSULTING & CONSTRUCTION

FIGURE 1

SITE LOCATION MAP

Federal Building 2C
 620 Central Avenue
 Alameda, California

PHOTOS



Elevator located on the other side of the window. Trench for hydraulic pipeline located adjacent to down spout.



Elevator control room showing trench location on sidewalk. Excavation will extend from elevator building, across the street, to the control room.