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April 4, 1997

Ms. Eva Chu
Hazardous Materials Specialist
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

**Subject: Work Plan and Site Health and Safety Plan
Underground Storage Tank Removal Activities and
Mineral Oil Soil Removal Activities
Tracy Pumping Plant Substation Garage
16650 Kelso Road
Tracy, California**

Dear Ms. Chu:

Woodward-Clyde Federal Services (Woodward-Clyde) has been contracted by the U. S. Department of Interior, Bureau of Reclamation (Reclamation) to conduct underground storage tank removal activities and mineral oil soil removal activities at the Tracy Pumping Plant Substation located at 16650 Kelso Road in Tracy, California. The purpose of this work plan is to describe the planned activities at the Tracy Pumping Plant Substation and request your approval of the UST Closure Plan. The following information is attached to this letter work plan:

- Three copies of the Underground Storage Tank Closure Plan,
- Site Health and Safety Plan,
- Facility site plan,
- Copy of Valenzuela Engineering, Inc. General Engineering "A" Contractors License,
- Copy of Woodward-Clyde's Worker's Compensation and Employers' Liability Certificate of Insurance, and
- Check for the amount of \$894 for Alameda County oversight fees (receipt requested).

This letter work plan is divided into the following sections: Background; Proposed Scope of Work; and Schedule.

BACKGROUND

The Tracy Pumping Station and Substation is located in northeastern Alameda County approximately 10 miles northwest of Tracy, California. The facility is bounded on the east

BUREC/Tracy UST/Work Plan/BURECTG.WPL/4-4-97



by Mountain House Road and on the south by Kelso Road (Figure 1). The Tracy Pumping Station and Substation facility operates an electrical substation and large pumping plant that delivers water southward for the Delta-Mendota Canal. Reclamation manages the pumping plant operations and the Department of Energy, Western Area Power Administration (Western) manages the electrical substation operations. The facility occupies approximately 64 acres that includes a large pumping plant, an associated intake canal, an electrical substation, and a maintenance yard. Reclamation began operations at the facility in 1948. In 1978 Western acquired the substation facility and in 1990 began expansion of electrical plant operations into the northern area of the maintenance yard.

The pumping plant, substation, and maintenance yard are located along the southern boundary of the facility. The two areas where field activities are proposed are located near the Reclamation's vehicle maintenance garage and north of Western's equipment storage building.

Vehicle Maintenance Garage

A vehicle maintenance garage is located along the western boundary of the 3.2 acre maintenance yard. Four underground storage tanks (USTs) were utilized at the vehicle maintenance garage (site). Two 2,000-gallon USTs are located west and northwest of the garage (Figure 2). A waste oil UST located at the southeast corner of the garage, and a leaded gasoline UST located near the northwest corner of the vehicle maintenance garage were taken out of service in 1994.

On February 8, 1994, the waste oil (1,000-gallon fiberglass) and leaded gasoline (2,000-gallon steel) USTs were removed from the site by Cottle Engineering of Antioch, California. The tanks and product lines were reported in good condition. The USTs were transported to Erickson, Inc. in Richmond, California under uniform hazardous waste manifest number 44964. The residual product and tank rinsate were transported by Sea View Industries of Oakland, California to Refineries Service in Patterson, California.

One soil sample (WO-1) was collected from the waste oil tank excavation from an unknown depth. The sample was analyzed for TPH as gasoline, BTEX, total lead, LUFT metals, TPH as diesel, total recoverable petroleum hydrocarbons (TRPH), and semi-volatile organic compounds (using EPA Method 8270). The results for sample WO-1 indicated detectable concentrations of 0.019 mg/Kg total xylenes (detected by 8270 Method only), 5.1 mg/Kg total lead, 41 mg/Kg chromium, 28 mg/Kg nickel, 36 mg/Kg zinc, and non-detectable concentrations of all other constituents analyzed. No groundwater was encountered during the excavation activities.

Two soil samples (RG-1 and RG-2) were collected from the gasoline UST excavation from depths of 11 and 12 feet below ground surface (bgs) respectively. Samples RG-1 and RG-2 were analyzed for total petroleum hydrocarbon (TPH) as gasoline using modified EPA Method 8015, benzene, toluene, ethylbenzene, xylenes (BTEX) using EPA Method 8020, and total lead using EPA Method 7420. Sample RG-1 was collected from the east end of the excavation and indicated detectable concentration of 3.1 mg/Kg TPH as gasoline and non-detectable concentrations of BTEX and total lead. Sample RG-2 was collected from the west end (fill end) of the excavation and indicated detectable concentrations of 130 mg/Kg TPH as gasoline, 0.16 mg/Kg toluene, 0.76 mg/Kg ethylbenzene, 1.9 mg/Kg xylenes, 5.7 mg/Kg total lead, and non-detectable concentration of benzene. The two excavations were backfilled with the stockpiled soil following the approval of ACEHD in late summer 1995.

On October 2, 1995 approximately 25 gallons of diesel fuel spilled during filling of a 2000-gallon diesel UST. Initial emergency response actions were performed by San Luis & Delta-Mendota Water Authority personnel. The extent of the spill was across the pavement and onto the native soil through an asphalt/concrete construction seam south of the diesel UST fill pipe. Asphalt was removed and approximately 4 cubic yards of soil was excavated from the impacted areas. Two confirmation soil samples were collected from a depth of approximately 1-foot from the bottom of the excavated area. Sample SS-1 collected from the east-central portion of the excavation contained detectable concentrations of 2,860 mg/Kg TPH as diesel, 0.332 mg/Kg benzene, 3.9 mg/Kg toluene, 0.302 mg/Kg ethylbenzene, 24.1 mg/Kg m,p-xylene, and 12.4 mg/Kg o-xylene.

On October 19, 1995, Clearwater Group, Inc. of Alameda, California supervised limited additional excavation and collected confirmation samples. Two areas of soil contamination associated with the diesel spill were identified: (1) a linear area one foot by 30-feet long, and (2) an area adjacent to a utility box north of the diesel UST. A total of approximately 2 cubic yards of soil was excavated from the two areas and confirmation samples were collected. The additional excavation apparently removed the majority of diesel contaminated soil from the site.

The two remaining 2,000-gallon USTs located west and northwest of the garage which contain unleaded gasoline and diesel fuels respectively are the subjects for this letter work plan/UST closure plan.

Western's Equipment Storage Building

Three storage sheds were located north of Western's warehouse. Two sheds (Tracy Shed and Tracy Warehouse Back) were built with wooden flooring. The third shed (Tracy Warehouse) was built directly on the soil. Prior to demolition, oil stains were observed by Western personnel within the sheds. The stains were likely the result of oil leaking from

equipment or containers stored within the shed. To evaluate the presence or absence of contamination within these areas, Western personnel collected four samples in June 1996 and analyzed them for total petroleum hydrocarbon by modified EPA Method 8015 and polychlorinated biphenyls (PCB) by EPA Method 8080. Two of the samples were collected from stain areas of the soil floor (Tracy Warehouse #1 and Tracy Warehouse #2). The other two samples were collected from small stain areas (less than a foot in diameter) of material located on the wooden floor (Tracy Shed #3 and Tracy Warehouse Back). Three of the four samples (Tracy Warehouse #2, Tracy Shed #3, and Tracy Warehouse Back) contained detectable concentrations of TPH as mineral oil ranging from 243 mg/Kg to 3,930 mg/Kg. One of the four samples (Tracy Warehouse #2) detected PCB at the detection limit of the analysis (1 mg/Kg). The three sheds were demolished in 1996.

PROPOSED SCOPE OF WORK

Woodward-Clyde plans to remove two USTs and their ancillary pumps and product lines, remove by excavation mineral oil soil contamination, collect confirmation soil samples for chemical analysis, and prepare a letter report summarizing the field activities. Valenzuela Engineering of Santa Maria, California has been contracted by Woodward-Clyde to perform the activities. A photocopy of Valenzuela Engineering and Construction Company, Hazardous Substances Removal and Remediation Actions Certification is attached to the work plan. Analytical testing of samples will be conducted by ITS Environmental Laboratory of San Jose, California. ITS is a California certified analytical laboratory.

Field Activities

UST and Ancillary Equipment Removal

Woodward-Clyde will direct Valenzuela Engineering, Inc. (Valenzuela) to conduct tank removal activities at the vehicle maintenance yard garage site and coordinate soil sampling activities under the direction of Alameda County Environmental Health Department (ACEHD). The tank removal activities will be scheduled following ACEHD approval of this work plan. Woodward-Clyde will notify ACEHD and Alameda County Fire Department, Fire Prevention Bureau (ACFD) 48-hours prior to commencement of tank removal activities.

All underground utility clearances and assessments will be conducted by Western and Reclamation personnel prior to commencement of excavation activities. Following approval from ACEHD, ACFD, and Reclamation, Woodward-Clyde will initiate the removal activities with Valenzuela. Valenzuela will begin by exposing the USTs and pipelines to the fuel dispensers. Valenzuela will remove and containerize any remaining product in each of the USTs and fuel pipelines. The USTs will be prepared for removal by excavating 2-feet of the surrounding native soil.

The USTs will then be triple-rinsed with a hot pressure washer and the rinseate will be containerized for disposal off-site. Prior to removing the USTs from the excavation, they will be inerted with dry ice to purge any remaining volatile vapors. The oxygen content and lower explosivity limit (LEL) will be measured with a combustible gas indicator and reported to ACFD and ACEHD. Upon ACFD and ACEHD approval, the USTs will be removed from their respective excavations and the Woodward-Clyde field representative will inspect the tanks for evidence of corrosion, holes, or cracks. The fuel pipelines and dispensers will also be inspected for integrity.

Mineral Oil Soil Removal

Woodward-Clyde will direct Valenzuela to remove by excavation the stained soil area. The excavated soil will be placed on polyethylene sheeting. The excavation will be inspected for soil discoloration or visible product. If contamination is present, the excavation activities will continue until visible evidence of contamination has been removed.

Confirmation Sampling

UST and Ancillary Equipment

Following the removal of the USTs from their excavations and fuel pipelines from the trench excavations, the native soil will be inspected for discoloration or visible free product. If no soil discoloration or free product is observed Woodward-Clyde will collect up to two soil samples from each UST excavation and one soil sample every 20 linear feet within the fuel pipeline trench at the direction of ACEHD. The sample locations and depths will be recorded and a field screening analysis will be conducted using a PetroFlag test kit calibrated for petroleum hydrocarbons. If the PetroFlag results indicate a relative petroleum hydrocarbon concentration above 100 mg/Kg, the Woodward-Clyde representative will direct Valenzuela to excavate further and another sample will be collected for confirmation and PetroFlag field screening.

The confirmation soil samples will be collected in clean 2-inch by 6-inch stainless steel liners. The sample liners will be sealed with Teflon and plastic end caps, then labeled with sample number, project number, date and time sampled. The liner will be placed in a resealable plastic bag and stored on ice in an ice chest until the samples can be transported to the analytical laboratory under chain of custody procedures.

If groundwater is encountered in the UST excavations, Woodward-Clyde will collect one grab groundwater sample from each excavation for chemical analysis. The groundwater sample will be collected by lowering a new disposable bailer and decanting the sample into the appropriate containers provided by the analytical laboratory.

Mineral Oil Soil Removal

If no soil discoloration is observed in the mineral oil soil excavations Woodward-Clyde will collect up to two soil samples from the floor of the excavation. The sample locations and depths will be recorded and a field screening analysis will be conducted using a PetroFlag test kit calibrated for petroleum hydrocarbons. If the PetroFlag results indicate a relative petroleum hydrocarbon concentration above 100 mg/Kg, the Woodward-Clyde representative will direct Valenzuela to excavate further and another sample will be collected for confirmation and PetroFlag field screening. The soil samples will be collected as described above for the UST removal confirmation sampling. No groundwater is expected in the mineral oil soil excavations.

Sample Analysis

UST and Ancillary Equipment

Samples collected from the diesel UST excavation pit and associated trenches will be analyzed for TPH as diesel using modified EPA Method 8015 and BTEX using EPA Method 8020. Samples collected from the unleaded gasoline UST excavation pit and associated trenches will be analyzed for TPH as gasoline using modified EPA Method 8015 and BTEX using EPA Method 8020. Samples collected below the pump dispensers will be analyzed for TPH as diesel and TPH as gasoline using modified EPA Method 8015 and BTEX using EPA Method 8020.

Mineral Oil Soil

Samples collected from the mineral oil soil excavation will be analyzed for total extractable petroleum hydrocarbon (TEPH) as motor oil using modified EPA Method 8015.

Soil Management

All soil removed by excavation activities will be separated and stockpiled on-site. Separation of clean and contaminated soil will be assessed by visual and PetroFlag field screening tests. Clean soil will be placed back into the excavation following ACEHD approval. Contaminated soil will be stockpiled on and covered with polyethylene sheeting and managed in accordance with local, State, and Federal regulations.

Report

Woodward-Clyde will prepare a letter report summarizing the field activities and present an evaluation of the sample analysis results from the UST and ancillary equipment removal activities and the mineral oil soil excavation. The report will include a location map, site plan maps, sample location maps, and tables presenting the analytical data.

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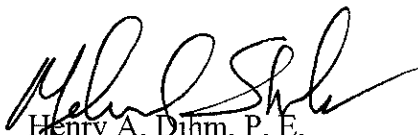
SCHEDULE

Woodward-Clyde anticipates conducting the planned work within two weeks of approval of the Underground Storage Tank Closure Plan by ACEHD. After the completion of the field activities, Woodward-Clyde anticipates that a report describing the field activities and summarizing the results of the activities will be submitted to ACEHD within 21 days of receiving the analytical results.

Please provide a receipt of fees paid with the approved UST Closure Plans. If you have any questions regarding this letter work plan please call William Loskutoff in our Sacramento office at (916) 368-0988 or myself at (805) 964-5098.

Very truly yours

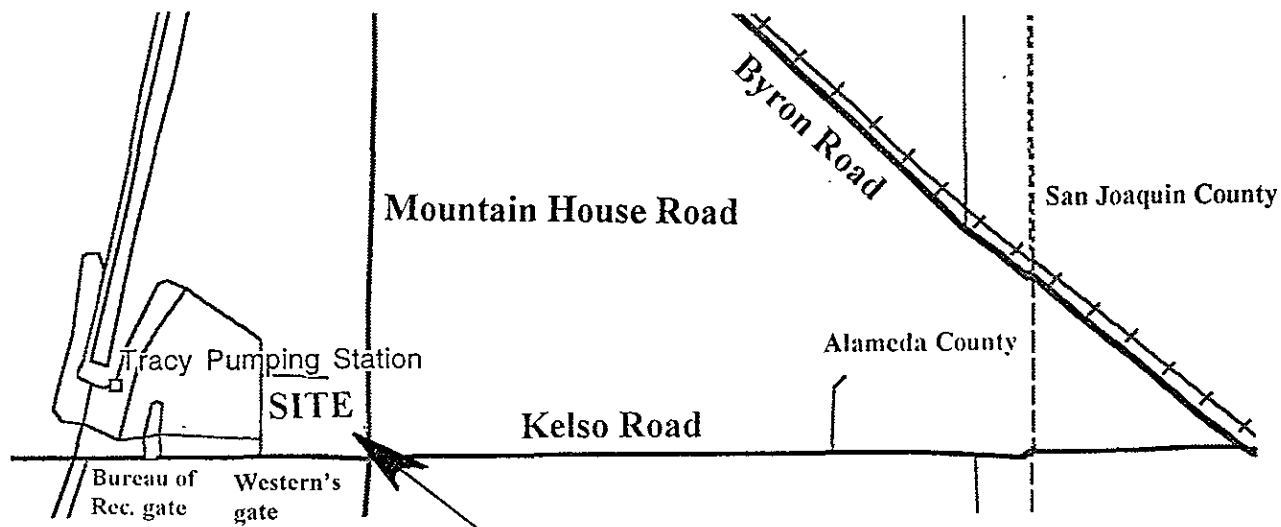
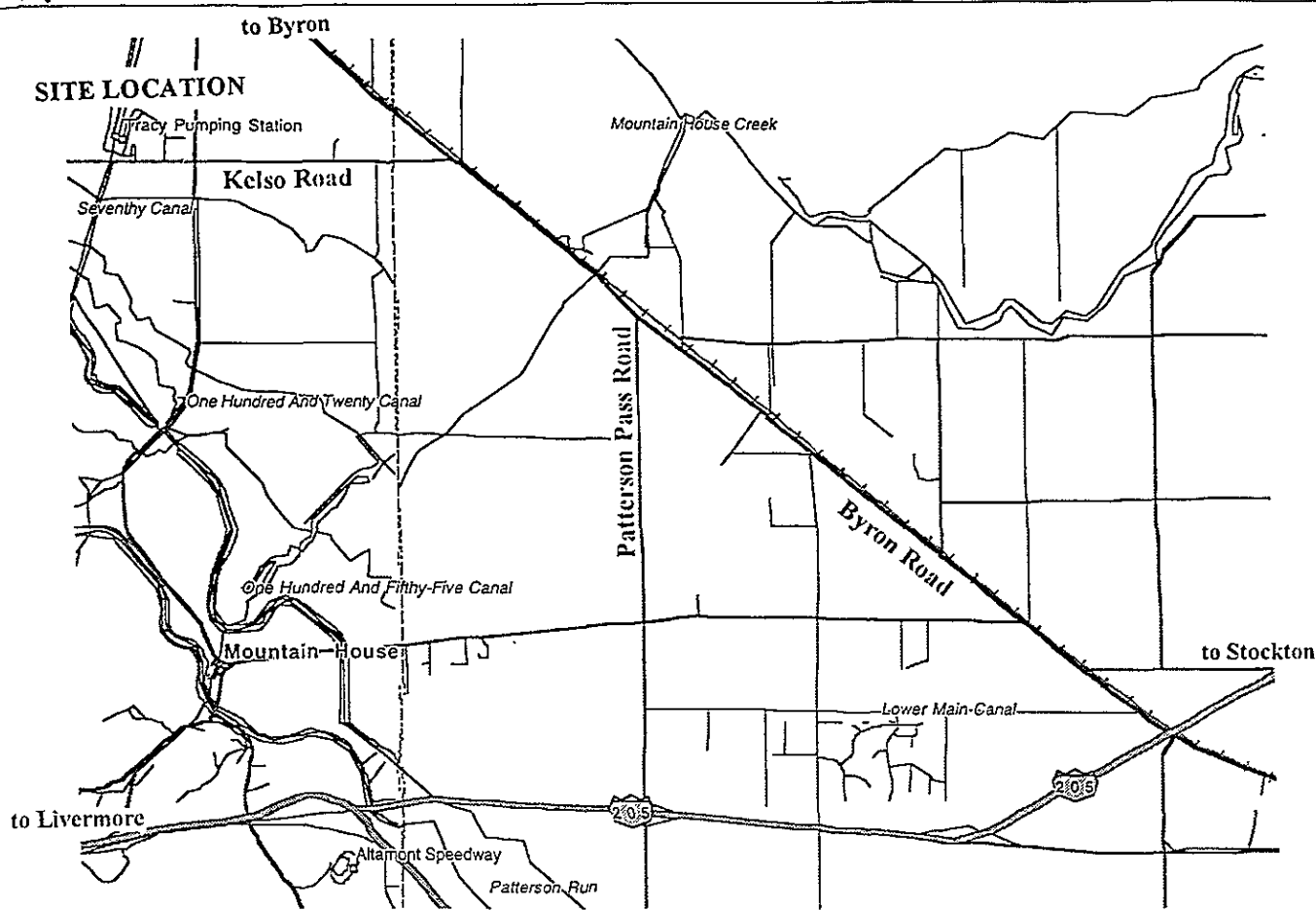
WOODWARD-CLYDE



Henry A. Dilm, P. E.
Senior Engineer

cc: Jim Scullin, Bureau of Reclamation-Sacramento
William Loskutoff, Woodward-Clyde-Sacramento

Attachments: Figure 1- Location Map
Figure 2 - Site Plan of Vehicle Maintenance Garage
ACEHD Underground Storage Tank Closure Plan (3)
Site Specific Health and Safety Plan
Copy of Valenzuela's General Engineering "A" License
Copy of Woodward-Clyde's Worker's Compensation and Employers'
Liability Certificate of Insurance
Valenzuela Engineering and Construction Company Hazardous Substances
Removal and Remediation Actions Certification
Check in the amount of \$894 paid to ACEHD (receipt requested)



Area of Figure 2

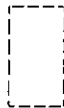
Western APA Warehouse

Diesel
UST
2000-gal.



Approximate Location
Former
Regular Gas UST
Excavation (backfilled)

Unleaded
Gas UST
2000-gal.

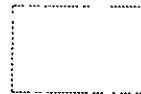


Fuel
Dispenser
Island



Vehicle
Maintenance
Garage

Approximate Location
Former
Waste Oil
Tank
Excavation
(backfilled)



Light
Vehicle
Building

Access Road



Not to Scale

Proj. No.
S96203

Bureau of Reclamation
Tracy, California

Woodward-Clyde

Site Plan

Figure
2