

WARNING

SENSITIVE RECORD

PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND NOT FOR PUBLIC VIEWING. THIS DOCUMENT CONTAINS THE FOLLOWING TYPE OF SENSITIVE INFORMATION:

- PRIVACY ACT INFORMATION
- ARCHAEOLOGICAL LOCATION COORDINATES OR MAPS
- ATTORNEY / CLIENT DELIBERATIVE PROCESS INFORMATION
- COMMAND INTERNAL RULES AND PRACTICES
- COMMERCIAL TRADE SECRETS OR CONFIDENTIAL COMMERCIAL INFORMATION
- DRAWINGS OF MILITARY STRUCTURES / BUILDINGS OR FEDERAL BUILDINGS
- STREET LEVEL MAP(S) OF MILITARY INSTALLATIONS OR FEDERAL BUILDINGS
- GEOLOGICAL / GEOPHYSICAL INFORMATION / DATA CONCERNING WELLS

RECORDS OFFICE REMINDER: REVIEW AND SAFEGUARD SENSITIVE INFORMATION CONTAINED IN THE DOCUMENT PRIOR TO PUBLIC ACCESS

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0067

**WORK PLAN ADDENDUM
FUEL PIER INVESTIGATION
Revision 0
November 18, 2003**

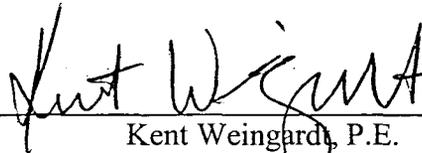
**NAVAL FUEL DEPOT POINT MOLATE
RICHMOND, CALIFORNIA**

DCN: FWSD-RAC-04-0420



FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101



Kent Weingardt, P.E.
Project Manager

FOSTER WHEELER

FOSTER WHEELER ENVIRONMENTAL CORPORATION

TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N68711-98-D-5713 (RAC III)

Document Control No. 04-0420

File Code: 5.0

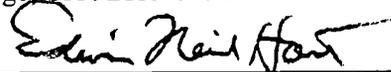
TO: Contracting Officer
 Naval Facilities Engineering Command
 Southwest Division
 Ms. Beatrice Appling, 02R1.BA
 1220 Pacific Highway
 San Diego, CA 92132-5190

DATE: 11/20/03

CTO: 0067

LOCATION: NFD Point Molate

FROM:


 Neil Hart, Program Manager

DESCRIPTION: Work Plan Addendum Fuel Pier Investigation, Rev. 0, 11/18/03

TYPE: Contract/Deliverable CTO Deliverable Notification
 Other

VERSION: Final

REVISION #: 0

(e.g. Draft, Draft Final, Final, etc.)

ADMIN RECORD: Yes No Category Confidential
 (PM to Identify)

SCHEDULED DELIVERY DATE: 11/18/03

ACTUAL DELIVERY DATE: 11/20/03

NUMBER OF COPIES SUBMITTED: 0/4C/5E

Copy of SAP to N. Ancog

COPIES TO: (Include Name, Navy Mail Code, and Number of Copies)

NAVY:

FWENC:

OTHER: (Distributed by FWENC)

J. Kowalczyk (06CMJK)

K. Weingardt

I. Amadea - SFB ROICC

O/2E

J. Yi

Diane Silva (05GDS) 3C/3E

M. LoStracco

Basic Contract File (02R1)

R. Margotto

1C

C. O'Rourke

M. Schneider

C. Simpson

Date/Time Received

N30519_000379
NFD POINT MOLATE
SSIC NO. 5090.3

DRAFT WORK PLAN
FUEL PIER INVESTIGATION

DATED 14 APRIL 2003

THIS RECORD IS ENTERED IN THE DATABASE AND FILED AS

RECORD NO. N30519_000358

TABLE OF CONTENTS

	PAGE
LIST OF TABLES	ii
ABBREVIATIONS AND ACRONYMS	iii
1.0 INTRODUCTION	1-1
2.0 SCOPE OF WORK.....	2-1
3.0 PROJECT ORGANIZATION	3-1
4.0 SITE HEALTH AND SAFETY	4-1
5.0 WASTE MANAGEMENT	5-1
6.0 REFERENCES	6-1

ATTACHMENTS

- Attachment 1 Statement of Work for Fuel Pier Liquid Removal, Transport, and Disposal
- Attachment 2 Quality Control Forms
- Attachment 3 Activity Hazard Analyses

LIST OF TABLES

Table 2-1 Work Activities

ABBREVIATIONS AND ACRONYMS

AHA	Activity Hazard Analysis
DON	Department of the Navy
FWENC	Foster Wheeler Environmental Corporation
HAZWOPER	Hazardous Waste Operations
OSHA	Occupational Safety and Health Administration
PPE	personal protective equipment
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
PGWTP	Packaged Groundwater Treatment Plant
ROICC	Resident Officer in Charge of Construction
SHSS	Site Health and Safety Specialist
SWDIV	Southwest Division Naval Facilities Engineering Command
USACE	U.S. Army Corps of Engineers

1.0 INTRODUCTION

This Work Plan Addendum was prepared by Foster Wheeler Environmental Corporation (FWENC) to the existing Work Plan – Fuel Pier Investigation (FWENC, 2003a) to address the additional tasks following the fuel pier investigation. This addendum describes the scope of work for collection, transportation, and disposal of oily liquid from the fuel pier, an oil recovery tank, and an oil/water separator at the Naval Fuel Depot Point Molate, Richmond, California. This document is prepared on behalf of the Department of the Navy (DON), Southwest Division Naval Facilities Engineering Command (SWDIV), under Remedial Action Contract No. N68711-98-D-5713, Contract Task Order No. 0067.

The fuel pier investigation was conducted by FWENC during May and June 2003 to identify and assess the presence of residual product or oily water mixture in the fuel pipelines and a holding tank on the fuel pier. The findings of the investigation, as detailed in Fuel Pier Investigation Report (FWENC, 2003b), include the following:

- The overall condition of the pier appears to be structurally sound. Concrete pilings were installed to reinforce deteriorated wood pilings and beams. However, there were several areas where parts of the catwalk had fallen into the water.
- Eight main headers were identified; seven headers were used to transfer petroleum products, and one header was used to transfer water for fire protection.
- The liquid samples indicate that one header (Line 1) contains oily water mixture (mostly water) and three other headers (Lines 2, 4, and C) mainly contain diesel. One header (Line 3) contains some liquid, but a sample could not be collected due to an insufficient liquid amount present at the access point. Based on the historical record, Line 3 was used to transfer ballast sludge and water.
- Analytical results indicate that the liquid from Line 1 may be classified as non-hazardous, while the liquid from three other lines should be considered hazardous waste. However, for the purpose of disposal, all liquid from the pier pipelines will be considered as hazardous waste.
- Some pipelines were under pressure, most likely due to the sun heating the air inside the pipe. Care should be taken when accessing valves and openings.
- Two fueling station control boxes, a diesel generator, an emergency boat crane, and associated hoses were identified as containing diesel and hydraulic fluid.

As a result of the investigation, the DON requested FWENC to remove, transfer, and dispose of the liquid from the pipelines and tanks on the pier. In addition, the DON requested to dispose of the oily liquid from an obsolete oil recovery tank and an oil/water separator. Under the existing contract, FWENC operates and maintains the Packaged Groundwater Treatment Plant (PGWTP) and an oil/water separator at a former landfill. The PGWTP includes the oil recovery tank, now obsolete, which was previously used to skim off the product layer, mostly Bunker C, from the extraction well. The former landfill is equipped with the oil/water separator to remove the oily sheen from the landfill seepage water. Accumulated liquid needs to be drained as an ongoing operation and maintenance effort.

2.0 SCOPE OF WORK

The scope of work will include the following tasks:

- FWENC will procure a qualified subcontractor to collect, transport, and dispose of the oily liquid. After a health and safety briefing, a complete walk-through and visual survey of the pier and piping system will be conducted with the subcontractor to identify and understand the configuration of the pipelines and tanks from which the liquid is to be removed. During this walk-through, the pipelines and the tanks will be assessed to determine the convenient points of connection to vacuum the liquid content. Pipelines and tanks that contain the liquid with the same waste classification will be identified to allow grouping of the waste in the same vacuum truck. Upon identifying the pipelines, tanks, and their corresponding waste classification, a sequence of liquid removal will be discussed. The pipeline's physical condition, along with evidence of any leaks or spills, will also be observed and documented as part of this walk-through. All openings and valves that will be accessed during the liquid removal will be inspected for the mechanical integrity. Safety and clearance issues regarding the vacuum truck operation on the pier will be reviewed.
- A visual inspection of the oil recovery tank at the PGWTP and the oil/water separator at the landfill will be conducted with the subcontractor to identify the appropriate openings/connections to withdraw the liquid.
- FWENC will prepare the site with the appropriate safety equipment and gears. Lifelines will be placed at required area.
- FWENC will review and approve the waste disposal facility and appropriate paperwork including the waste manifest.
- FWENC will notify and coordinate with the Resident Officer in Charge of Construction (ROICC).
- FWENC will supervise the subcontractor tapping into the previously identified connection points or openings to vacuum the liquid from the pipelines and tanks. Care should be exercised to prevent any cross-contamination or mixing of different waste streams. Under this scope of work, there are two waste classifications: California hazardous and Resource Conservation and Recovery Act (RCRA) hazardous.

- Follow FWENC’s quality control (QC) and quality assurance (QA) guidelines when conducting the work.

There are three main work activities for this project. Details of these activities are presented in Table 2-1. They include:

1. **Walk-through** - After a health and safety briefing, a complete walk-through and visual survey of the pier and piping system will be conducted with the subcontractor to identify and understand the configuration of the pipelines and tanks from which the liquid is to be removed. During this walk-through, the pipelines and tanks will be assessed to determine the convenient points of connection for vacuuming the liquid content. Pipelines and tanks that contain the liquid with the same waste classification will be identified to allow grouping of the waste in the same vacuum truck. Upon identifying the pipelines, tanks, and their corresponding waste classification, a sequence of liquid removal will be discussed. Pipeline physical condition, along with evidence of any leaks or spills, will also be observed and documented as part of this walk-through. All the openings and valves that will be accessed during the liquid removal will be inspected for the mechanical integrity. Safety and clearance issues regarding the vacuum truck operation on the pier will be reviewed.
2. **Liquid Removal** – A FWENC-approved subcontractor will remove, transport, and dispose of the liquid in accordance with the appropriate regulatory requirements. Prior to work, the subcontractor will provide FWENC with all the necessary paperwork for review. Refer to the Attachment 1, Statement of Work for Fuel Pier Liquid Removal, Transport, and Disposal, for detailed responsibilities of the subcontractor. Estimated quantities of liquid and corresponding waste classification are summarized below.

Pipe/Equipment	Length (feet)	Liquid Volume (gallon)	Waste Classification
Line 1	450	1,098	Hazardous Waste
	1,350	8,630	
Line 2	450	217	Hazardous Waste
Line 3	450	817	Hazardous Waste
Line 4	450	291	Hazardous Waste
	1,350	3,051	
Line C	1,350	1,317	RCRA Waste

Pipe/Equipment	Length (feet)	Liquid Volume (gallon)	Waste Classification
Hydraulic Tanks and Hoses on the Pier	N/A	130	Hazardous Waste
Diesel Generator	N/A	60	Hazardous Waste
Oil/Water Separator	N/A	1,000	RCRA Waste
Oil Recovery Tank	N/A	500	Hazardous Waste

Notes:

N/A – not applicable

RCRA – Resource Conservation and Recovery Act

- Documentation** – Inspection and liquid removal will be documented in the field in the field logbook and photographs. All field activities will be documented on the QC forms presented in Attachment 2. A copy of the waste manifest signed by the ROICC will be filed for record.

3.0 PROJECT ORGANIZATION

Refer to Section 3.0, Project Organization, of the existing Work Plan – Fuel Pier Investigation (FWENC, 2003a). No changes have been made to this section.

4.0 SITE HEALTH AND SAFETY

All work shall be performed in accordance with the project Health and Safety Plans [Base-Wide Health and Safety Plan (FWENC, 2002a) and Site-Specific Health and Safety Plan (FWENC, 2002b)], *Safety and Health Requirements Manual, EM385-1-1* [U.S. Army Corps of Engineer (USACE), 1996], Activity Hazards Analyses (AHAs), and policies and site-specific procedures enforced by FWENC. Copies of the applicable AHAs are included in Attachment 3.

All field personnel are required to attend a daily tailgate safety meeting, approximately 10 minutes long, conducted each workday by FWENC's Site Health and Safety Specialist (SHSS). In addition, all field personnel must possess a valid 40-hour Occupational Safety and Health Administration (OSHA) training certificate, a current 8-hour Hazardous Waste Operations (HAZWOPER) refresher training certificate, and a current medical certificate that meets all of the applicable OSHA regulations to include 29 Code of Federal Regulations, Part 120 (8 California Code of Regulations 5192).

The key safety consideration is that work will be taking place on the pier. All workers must wear orange floatation vests and other highly visible clothing. Other mandatory personal protective equipment (PPE) to be worn by all personnel working at the site includes hard hat, steel-toe boots, and safety glasses. When inspecting or collecting samples from the tank (or accessing any other area that may present a fall hazard), the worker is required to wear a harness. At a minimum, two workers will be required at all times when conducting activities on the pier.

The above-referenced AHAs and Health and Safety Plans (FWENC, 2002a; 2002b) establish the minimum health and safety requirements for this project.

5.0 WASTE MANAGEMENT

All waste generated from the field activities will be handled in accordance with the Waste Management Plan Addendum in Appendix B of the *Final Work Plan for the Operation and Maintenance of the Extraction Trench, Packaged Groundwater Treatment Plant, and Stormwater Treatment Ponds, Naval Fuel Depot Point Molate, Richmond, California* (FWENC, 2002c). Any waste generated at the site will be containerized in Department of Transportation-specification drums (55-gallon). Disposal of the waste will be performed in coordination with the DON. Only incidental waste (PPE, rags, and garbage) is anticipated to be generated as a result of this work.

6.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2002a. *Final Base-Wide Health and Safety Plan*. Revision 0. Naval Fuel Depot Point Molate, California.

_____. 2002b. *Final Site-Specific Health and Safety Plan, Operation and Maintenance of the Extraction Trench, Packaged Groundwater Treatment Ponds*. Revision 0. Naval Fuel Depot Point Molate, California.

_____. 2002c. *Final Work Plan, Operation and Maintenance of the Extraction Trench, Packaged Groundwater Treatment Plant, and Stormwater Treatment Ponds*. Revision 0. Naval Fuel Depot Point Molate, California.

_____. 2003a. *Work Plan, Fuel Pier Investigation*. Revision 0. Naval Fuel Depot Point Molate, California.

_____. 2003b. *Fuel Pier Investigation Report*. Revision 0. Naval Fuel Depot Point Molate, California.

U.S. Army Corps of Engineers (USACE). 1996. *Safety and Health Requirements Manual, EM 385-1-1*. September 3.

TABLES

TABLE 2-1
WORK ACTIVITIES

ACTIVITY	DETAILS	FOLLOW-UP
Walk-Through	<ul style="list-style-type: none"> • Coordinate the walk-through with the DON and the subcontractor. • Review facility utility drawings for the fueling pier. • Review all applicable regulations and facility requirements. • Review Work Plan Addendum. • Ensure that the DON was contacted and has responded to their notification. • Ensure that the necessary facility drawings are provided to the subcontractor. • Ensure that all applicable regulations and facility requirements have been identified and are understood by the project team. • Ensure that the project team has reviewed the Work Plan Addendum and Statement of Work for Fuel Pier Liquid Removal, Transport, and Disposal (Attachment 1 of the Work Plan Addendum). • Ensure that the appropriate markings and labels are placed on pipelines, tanks, and equipment. • Ensure that all valves and openings to be used for the liquid removal tasks are identified and functional. • Review the sequence of liquid removal and waste classification and expected volume. 	<ul style="list-style-type: none"> • Verify that the activity has been performed in compliance with the Work Plan Addendum.

**TABLE 2-1
WORK ACTIVITIES**

ACTIVITY	DETAILS	FOLLOW-UP
Liquid Removal	<ul style="list-style-type: none"> • Ensure that all the safety clearance paperwork from the subcontractor has been reviewed prior to liquid removal. • Ensure that all the safety and spill prevention measures and gears are in proper placement. • Ensure that the team and subcontractors are wearing the appropriate PPE. • Ensure that the waste manifests have been reviewed and approved. • Ensure that the wastes are removed and grouped according to the designated waste classification. • Ensure that all valves and openings are properly vented. • Ensure that all valves and openings are properly closed after liquid removal. • Ensure that the liquid has been completely removed by visual inspection through the access points. 	<ul style="list-style-type: none"> • Verify that the activity has been performed in compliance with the Work Plan Addendum.
Documentation	<ul style="list-style-type: none"> • Document the activities in the field logbook and photographs. • Fill out the appropriate QC forms. • Ensure that the waste manifests are signed by ROICC. 	<ul style="list-style-type: none"> • Ensure that all the notes, photographs, QC forms, and a copy of signed manifest are filed. • Verify that work has been performed in compliance with the Work Plan Addendum.

Notes:

DON – Department of the Navy
PPE – personal protective equipment
QC – quality control
ROICC – Resident Officer in Charge of Construction

ATTACHMENT 1

STATEMENT OF WORK FOR
FUEL PIER LIQUID REMOVAL, TRANSPORT, AND DISPOSAL

**Fuel Pier Liquid Removal, Transport, and Disposal
Contract Task Order (CTO) 67
Naval Fuel Depot Point Molate
Richmond, California**

STATEMENT OF WORK

Prepared by:
Tetra Tech FW, Inc.

Prepared Under:
Contract N68711-98-D-5713
U.S. Navy, Southwest Division
Naval Facilities Engineering Command (SWDIV)
Remedial Action Contract

This document was prepared by Tetra Tech FW, Inc. under the above listed contract with the US Navy. It is provided on the condition that it will neither be reproduced, copied, or issued to a third party; will be used solely for the intended purpose; and will be used solely for the execution or review of the engineering, remediation, and/or construction of the subject project.

Rev	Prepared	Reviewed	Approved	Date	Pages Affected
0					All

TABLE OF CONTENTS

1.0 GENERAL INFORMATION.....	1
1.1 SITE LOCATION AND BACKGROUND.....	1
1.2 SCOPE OF WORK - SUMMARY.....	2
1.3 PROPOSAL REQUIREMENTS.....	2
1.4 SCHEDULE.....	3
2.0 HEALTH AND SAFETY.....	4
2.1 ZERO INCIDENT PERFORMANCE.....	4
2.2 SUBCONTRACTOR HEALTH AND SAFETY REQUIREMENTS.....	4
3.0 SITE REQUIREMENTS AND RESTRICTIONS.....	5
3.1 ACCESS AND SECURITY.....	5
3.2 SUBCONTRACTOR ON-SITE FACILITIES.....	5
3.3 WORKING HOURS AND HOLIDAYS.....	5
4.0 SUBCONTRACTOR WORK ACTIVITIES.....	5
4.1 PRE-BID SITE WALK.....	5
4.2 SUBCONTRACTOR PROJECT WORK ACTIVITIES.....	6
4.3 SUBCONTRACTOR SUBMITTALS.....	8
5.0 SUBCONTRACTOR REQUIREMENTS.....	8
6.0 ITEMS FURNISHED/PROVIDED BY TTFW.....	10
7.0 MEASUREMENT AND PAYMENT.....	10
ATTACHMENTS:.....	14
A. ACTIVITY HAZARDS ANALYSIS.....	15
B. SCHEDULE OF VALUES (BID SHEET).....	16

1.0 GENERAL INFORMATION

Tetra Tech FW, Inc. (TTFW) is soliciting bids in order to place a subcontract with a licensed and qualified waste transport and disposal subcontractor. Work included in this proposed subcontract includes removal, transport, and disposal of the following waste streams as California hazardous waste and/or RCRA hazardous waste based on the profiling:

1. Liquid (fuel and water mixture) from fuel pier pipelines
2. Hydraulic fluids from tanks and hoses on the fuel pier
3. Diesel and hydraulic fluid from a diesel generator
4. Oily liquid from an oil/water separator (located outside the fuel pier)
5. Petroleum product from oil recovery tank (located outside the fuel pier)

Nothing contained herein relieves the Subcontractor from fulfilling the requirements stipulated in the Subcontract in its entirety. Other forms of waste disposition (including recycling, fuels blending etc.) are acceptable with advance approval from TTFW.

The TTFW Technical Point of Contact for this Project is:

June Yi (949) 756-7559

The TTFW Contractual/Procurement Point of Contact is:

Meghan Ehlke (619) 471-3558

1.1 Site Location and Background

Naval Fuel Depot Point Molate is located on Western Drive on the edge of San Pablo Bay just north of the Richmond-San Rafael Bridge in Richmond, Contra Costa County, California. Point Molate was formerly used as a fuel depot by the Naval Supply Center in Oakland. Over 40 million gallons of fuel and oil, including bunker-C, gasoline, motor oil, diesel, and jet propellant (JP)-5 were transferred and stored at the depot. The base was in operation between 1944 and 1995. Currently, no fuel is being stored at the depot.

The pier consists of three sections; 1) the causeway, a 1,350-foot-long section of the pier from the shoreline projecting westward, or outward, into the bay, 2) the wharf, a 450-foot-long section of the pier extending southward, or perpendicular, from the west end of the causeway (and therefore, parallel to the shoreline), and 3) the lower deck, a wood platform that runs the entire length of the wharf supported by wood posts that hang from the bottom of the upper deck (wharf). Pipelines run alongside the pier and underneath, supported in pipe racks. The pipelines consist of pipe headers and branches. One empty holding tank is located at the lower deck (outer section) and has an opening on top that is not covered. Pipe headers that run alongside the causeway and extend to the land have been cut and capped at both ends.

During May and June 2003, TTFW conducted an investigation to identify the presence of residual liquids or oily water mixtures in the fuel pipelines on the fuel pier. Several pipelines were found to contain oily water mixtures. Also four tanks containing hydraulic fluid and one tank containing diesel were identified. Liquid from the pipelines is to be vacuumed using a vacuum truck. Tanks shall be emptied by connecting the vacuum hose at drain ports.

In addition to the pier work, an oil/water separator located at a nearby landfill site needs to be drained as part of the annual maintenance practice. This oil/water separator collects and treats seepage water from the capped landfill site. The oily water mixture can be removed by vacuuming from the top or at the drain port. Likewise, an oil recovery tank located next to an extraction well will be drained of the petroleum product (mostly Bunker C).

1.2 Scope of Work - Summary

The scope of work to be accomplished by this Subcontract consists of removal, transport, and disposal of the following waste streams. Waste classification for each waste stream is discussed in Section 4.2:

1. Liquid (fuel and water mixture) from fuel pier pipelines
2. Hydraulic fluids from tanks and hoses on the fuel pier
3. Diesel and hydraulic fluid from a diesel generator
4. Oily liquid from an oil/water separator (located outside the fuel pier)
5. Petroleum product from oil recovery tank (located outside the fuel pier)

This will include all labor, materials, and equipment necessary to perform these tasks. The scope also includes preparation and coordination of waste profiles for these wastestreams (using TTFW supplied generator information and analytical data) with the disposal facilities pursuant to review and approval by TTFW and the Navy, and preparation of waste manifests for TTFW and Navy review prior to waste transport scheduling. Additional details are provided in Section 4.0.

1.3 Proposal Requirements

- The bidder's proposal package must include a signed and completed Request for Proposal. All unit pricing must be documented with the corresponding line items and must identify the TTFW approved transporter and disposal facility.
- A list of proposed equipment for collection and transport of the waste
- A list of all potential lower tier subcontractors including transportation companies and disposal facilities must be provided to TTFW. All lower tier subcontractors must be pre-qualified by TTFW in advance of contract award. It is strongly advised that any lower tier subcontractors be selected from TTFW's pre-qualified list of subcontractors, which can be obtained from the procurement representative. Proof of all lower tier subcontractor's agreement and acknowledgement of TTFW's terms and conditions shall be submitted with the bidder's proposal

package.

1.4 Schedule

The period of performance for this contract is through December 31, 2003. The Subcontractor must be able to respond to a shipment request within 3 days of notification by TTFW.

2.0 HEALTH AND SAFETY

2.1 Zero Incident Performance

Contractor safety culture begins with *Zero Incident Performance* as an expectation, and promotes continuous improvement in safety performance throughout the life of a project. *Zero Incident Performance* on a project is achievable through proper planning of the work, proper tasking of personnel on plan requirements, and proper execution of the work in accordance with the plans. The goal of *Zero Incident Performance* is to achieve project completion with no injuries, illnesses, property damage, community or environmental impacts, or incidents that could have resulted in these occurrences under different conditions.

TTFW believes that all incidents are preventable. *Zero Incident Performance* does not happen by chance; it is achievable through the integration of safety into all management systems, the project process, and individual efforts. Subcontractors (and lower-tier subcontractors) are expected to promote this safety culture and strive to achieve *Zero Incident Performance*.

TTFW believes that a behavior-based approach to safety performance is essential to achieving *Zero Incident Performance*. Subcontractor is required to participate in behavior-based safety activities as requested by TTFW. These activities will consist of documented employee observations and feedback received from employees and supervisors.

2.2 Subcontractor Health and Safety Requirements

The Subcontractor shall comply with the project Site-Specific Health and Safety Plan, Activity Hazards Analysis (AHA) to be provided at a later date or upon request, and policies and site-specific procedures enforced by TTFW. The Subcontractor will be required to read and sign the Site-Specific Health and Safety Plan. In addition, copies of the applicable AHA's are included in Attachment A.

All field personnel and drivers must possess a valid 40-hour OSHA training certification, a current 8-hour HAZWOPER refresher training certificate, and a current medical certification that meets all of the applicable OSHA regulations to include 29CFR1910.120 (8CCR5192).

The potential hazards associated with this project include hazards resulting from exposure to the contaminants of concern. The contaminants of concern at the site are low volatility petroleum hydrocarbons. Mandatory Personal Protective Equipment (PPE) to be worn by all personnel at all times when on the site include hard hats, steel-toe boots, orange safety vests, and safety glasses. If drivers are not equipped with this PPE, they must remain in their trucks or will be directed to leave the site.

The attached AHAs establish the minimum health and safety requirements for this project. Subcontractor is responsible for identifying and implementing any additional health and safety requirements they deem necessary to provide and maintain a safe and healthful work environment free of recognized hazards.

3.0 SITE REQUIREMENTS AND RESTRICTIONS

3.1 Access and Security

The Subcontractor shall at no time access the site or perform any work on site without coordination with TTFW. A TTFW representative shall be on site any time that the Subcontractor will access the site or perform work on site.

The Subcontractor shall have valid proof of insurance and registration for any vehicles brought on site.

No Subcontractor employee may enter any building at the job site without approval from the TTFW site representative. TTFW will designate parking spaces for Subcontractor staff working on site. The Subcontractor shall never park in an unapproved area.

If for any reason the Navy imposes access restrictions at the site, it will be TTFW's responsibility to coordinate with the Navy to provide this access to perform the work. The Subcontractor may be required to provide detailed information regarding the Subcontractor's employees and equipment in order to obtain access approval.

The Subcontractor shall direct all communications with the Navy or public interests regarding this project to the TTFW Project Manager.

3.2 Subcontractor On-Site Facilities

Should the Subcontractor require facilities in addition to those provided by Contractor, Subcontractor shall provide its own additional facilities.

Prior to work commencement, the Subcontractor shall inform TTFW of any Subcontractor facilities that would be needed on site. TTFW will provide the location of sanitation facilities. It is not anticipated that the Subcontractor would require any additional facilities on this project.

3.3 Working Hours and Holidays

There are no stipulated standard working hours for the execution of this Subcontract. If the Subcontractor proposes work beyond normal daylight hours they must identify this alternative approach in their bid package. The Subcontractor shall provide any necessary lighting if it is proposed to work beyond normal daylight hours. The schedule for all activities must be coordinated with TTFW and approved in advance.

4.0 SUBCONTRACTOR WORK ACTIVITIES

4.1 Pre-bid Site Walk

All potential bidders shall have a pre-bid site walk opportunity to show the fuel pier and the landfill oil/water separator. If a potential bidder would like the opportunity to walk the site contact June Yi at 949-756-7559 to coordinate a date, time and location.

4.2 Subcontractor Project Work Activities

The Subcontractor shall supply all labor, equipment and materials necessary to collect, transport, and dispose of all the waste streams mentioned in Section 1.0. The following provides a detailed description of the waste streams:

Liquid from Fuel Pier Pipelines

There are five main pipelines that contain liquid consisting of a fuel and water mixture. These pipelines are identified as Lines 1, 2, 3, 4, and C. Pipelines are partially full, ranging from 1 to 4 inches in liquid depth. Some pipe segments were found to be under a slight pressure, most likely due to the sun heating the air inside the pipe. Care should be taken when opening any valves to let the pipes vent for several minutes.

The Subcontractor shall vacuum the liquid from the pipelines into a vacuum truck. The vacuum truck can be driven on the top deck, which is constructed of concrete. The pipelines extend to the lower deck of the pier. Therefore, the lowest point or the vacuum hose connection point for each pipeline is likely located on the lower deck made of wood. Field verification is required to identify the convenient connection points.

The table below lists the estimated fuel/water mixture liquid to be removed and its corresponding waste classification. TTFW will provide detailed analytical results of the fuel/water mixture.

Pipe/Equipment	Length (feet)	Diameter (inch)	Liquid Depth (inch)	Liquid Volume (gallon)	Waste Classification
Line 1	450	20	1.5	1,098	California Hazardous
	1,350	20	4	8,630	
Line 2	450	6	1	217	California Hazardous
Line 3	450	8	3	817	California Hazardous
Line 4	450	8	1	291	California Hazardous
	1,350	8	4	3,051	
Line C	1,350	12	1	1,317	RCRA Hazardous
TOTAL				15,421	

Hydraulic Fluid from Tanks and Hoses

Besides the fuel transfer pipelines, the fuel pier is equipped with two fueling stations and a boat crane. The Subcontractor shall remove the remaining hydraulic fluid from these units for disposal as California hazardous waste. The two fueling stations contain approximately 80 gallons of hydraulic fluid total. The boat crane contains approximately 50 gallons of hydraulic fluid. Also any remaining liquid left inside the flexible fueling hoses is to be removed. The quantity is unknown, but is likely be very minor.

Diesel and Hydraulic Fluid from a Diesel Generator

A diesel generator located on the pier contains approximately 10 gallons of diesel and 50 gallons of hydraulic fluid. The Subcontractor shall remove the liquid from the generator for disposal as California hazardous waste.

Oily Liquid from an Oil/Water Separator

TTFW operates and maintains an oil/water separator located at a former landfill site nearby the fuel pier. As part of the annual maintenance, this oil/water separator needs to be drained. The unit contains a maximum of 1,000 gallons of oily water. The Subcontractor shall drain the oily water for disposal as RCRA hazardous waste. TTFW will provide a detailed analytical result of the oily water.

Petroleum Product from an Oil Recovery Tank

TTFW operates and maintains a packaged groundwater treatment plant. As part of the system, an oil recovery tank, now obsolete, was used to skim off the product layer from an extraction well. The product collected in the tank is mostly Bunker C and is estimated 500 gallons in volume. The Subcontractor shall drain the product for disposal as California hazardous. TTFW will provide a detailed analytical result of the oily water.

The Subcontractor shall prepare all paperwork and supply the necessary forms to include: waste profiles, Hazardous Waste Manifests, Non-Hazardous Waste Manifests, and Land Disposal Restrictions, as appropriate, using information provided by TTFW. All paperwork is subject to review by TTFW. TTFW will be responsible for obtaining the generator's signature. The Subcontractor is expected to deliver to TTFW all completed waste disposal paperwork within 72-hours of request by TTFW, assuming all necessary data has been provided to the subcontractor.

The Transportation Subcontractor shall be pre-qualified under TTFW Subcontractor Qualification Procedures. All trucks transporting the material must belong to the pre-qualified Transportation Subcontractor. All drivers must be employees of the pre-qualified Transportation Subcontractor. The Transportation Subcontractor shall provide the 24-hour emergency contact during transportation. In addition, the Transport and Disposal Subcontractor must be prepared to handle any spills that may occur during container handling, loading, and transport. The Subcontractor is responsible for having adequate spill control equipment and training to use it. However, all efforts shall be made to ensure no spills or other release of the substances reaches the Bay during the material transfer activities.

More than one Transportation Subcontractor may be used, but they must all be pre-qualified and TTFW must be informed that they are being used in advance. The Transportation Subcontractor shall have all appropriate licenses, including an EPA Identification Number, DTSC Hazardous Waste Transporter Registration, DOT Identification Number, and DOT Hazardous Material Registration Number. Hazardous material, including hazardous waste, shall be properly classified, described, packaged, marked, and labeled for shipment as required by applicable sections of 49 CFR 171, 172, 173, 178, and 179 and 22 CCR 66262.10-66262.45. Properly DOT-trained personnel shall perform DOT functions. The Transportation Subcontractor will be responsible for providing all of the necessary placards.

- **Shipping Description** - Material that does not exhibit one of the nine DOT hazard classes (i.e., explosive, flammable, poison, combustible, etc.) is not regulated under DOT rules for the transportation of hazardous material. The TTFW Compliance Officer or the DOT Coordinator shall confirm this description prior to shipment. The applicable DOT shipping description, EPA hazardous waste number, and the California waste code shall be selected based on the results of the waste characterization performed by TTFW.

- **Marking and Labeling** - The shipping name, hazard class, identification number, technical names, EPA markings and waste code numbers, and consignee/consignor designations must be marked on packages for shipment in accordance with 49 CFR 172. This information shall be marked on each truck container after consultation with the TTFW Compliance Officer or DOT Coordinator.
- **Placarding** - Placards are to be provided by the Subcontractor. Vehicles shall be appropriately placarded in accordance with 49 CFR Part 172.
- **Manifest** - The Subcontractor shall prepare manifests for all hazardous materials shipped off site for disposal. The Subcontractor shall prepare Manifests shall be completed by the Subcontractor for the approval of TTFW and require DON signature before the waste leaves the site. Copies of all Manifests of Lading shall be given to TTFW at the time of shipment to be retained in the project files, and original copies shall be sent with the transporter.

The disposal or recycling facility must be pre-qualified under TTFW's Subcontractor Qualification Procedures. The Subcontractor shall provide to TTFW all completed disposal facility waste profile documentation for review and approval. Once approved by TTFW, TTFW will obtain appropriate signatures on the profile documents from the DON. Likewise, prior to scheduling shipping of the waste materials, a draft hazardous waste manifest shall be provided to TTFW for review and approval. Subsequent scheduling of waste transport must be closely scheduled with TTFW so TTFW personnel can coordinate with the DON to ensure the manifests can be signed by the appropriate DON representative. Under no circumstances shall TTFW personnel sign waste profiles, waste manifests, or other waste documentation.

The Subcontractor shall provide to TTFW all paperwork from the Disposal Facility (weight tickets, disposal certification, etc.) as appropriate once the material is dispositioned prior to receiving payment. The Subcontractor is expected to deliver to TTFW all completed waste disposal paperwork within 72-hours of request by TTFW assuming all necessary data has been provided to the Subcontractor.

4.3 Subcontractor Submittals

The Subcontractor shall submit copies of all applicable licenses, registrations, and certifications prior to performing any work on site or transporting the material. The Subcontractor shall submit all waste paperwork to TTFW as described above in the timeframes proposed.

5.0 SUBCONTRACTOR REQUIREMENTS

The Subcontractor shall have performed work of a similar nature in the Bay Area for at least 5 years.

The Subcontractor shall comply with all federal (including: 40 CFR, 29 CFR, 49 CFR, etc.), state and municipal rules, regulations, and statutes.

The Subcontractor must maintain secure financial standing, and not currently be in bankruptcy.

The Subcontractor must not possess any unresolved notices of violation from any regulatory agencies (including, but not limited to USEPA, DOT, CA DTSC, etc.)

The Subcontractor must indemnify TTFW, its clients, and the generator upon receipt of wastes

The Subcontractor will be prepared to contain, cleanup, and dispose of any spills which may occur during loading and unloading of the above-mentioned wastes. The Subcontractor is responsible for having adequate spill control equipment and personnel who are trained in spill response procedures.

Subcontractor will have the ability to prepare profiles, LDRs, manifests and/or bills of lading as directed by TTFW.

The disposal facility must accept the transporter vehicle, sign the shipping documents, unload the transporter vehicle, and release the transporter vehicle within one hour of each vehicle's arrival (excluding the discovery of discrepancies)

The manifest must accompany the waste at all times. When waste is transferred from the custody of the transporter to the designated disposal (incl. treatment and/or recycling) facility, the new party must sign the manifest and take custody of the waste in accordance with all RCRA, California, and DOT requirements.

Each manifest will list only the transporter(s) and designated disposal facility that has been pre-qualified and authorized by TTFW. No changes, including additions or subtractions may be made to the transporter(s) or disposal facility on the manifest without direct authorization from TTFW in advance of the change. TTFW must be immediately contacted regarding any proposed change to the manifest prior to the change occurring.

The Subcontractor must immediately notify the TTFW Technical Lead, June Yi at the following contact numbers if any discrepancies in a waste shipment are discovered. The Subcontractor must attempt to resolve any discrepancies causing rejection of waste with the TTFW Technical Lead at each of the following contact numbers in the following order prior to rejection of waste:

- Office: (949) 756-7559. If no answer, listen to voice mail and leave a message with a contact phone number, then call
- Cell phone: (949) 374-4739. If no answer, listen to voice mail and leave a message with a contact phone number, then call

The Subcontractor must permit TTFW reasonable time to respond prior to rejection of waste. Do not leave the waste or turn over custody of the waste to anyone without prior direction and approval from TTFW.

The Subcontractor must fax facility signed shipping documents to ATTN: June Yi at fax number (949) 756-7560 no later than five (5) business days from receipt of wastes

The Subcontractor must ensure that each manifest is returned to TTFW within thirty (30) days of receipt of the waste at the designated disposal facility. In addition, Certificates of Recycle/Treatment/Disposal must be provided to TTFW within thirty (30) days from receipt of wastes to, ATTN: June Yi, Task Manager, Tetra Tech FW, Inc., 1940 E. Deere St., Ste 200, Santa Ana, CA 92705.

If necessary, the Subcontractor shall obtain all necessary state and/or local air emission permits for equipment (e.g., fuel-powered, portable generators, compressors, etc.) used in performing the work.

The Subcontractor is responsible for security of their equipment.

6.0 ITEMS FURNISHED/PROVIDED BY TTFW

1. TTFW will provide all access control to site and will coordinate any security or badging requirements with the Navy.
2. TTFW will provide Sanitary Facilities for the Subcontractor.
3. TTFW will provide coordination/notification to all affected property owners.
4. TTFW will provide all personal health and safety monitoring as required in the TTFW Health and Safety Plan.
5. TTFW site representative will be on-site at all times during fieldwork and will provide oversight to subcontractor.
6. TTFW will provide direction to the Subcontractor for employee parking.
7. TTFW will provide laboratory analytical results for the oil/fuel/water mixture waste stream to the Subcontractor for purposes of preparing profiles and review by the disposal facility.
8. TTFW will be responsible for obtaining the generator's signature on the waste profile and manifest from the Navy.

Failure by TTFW to furnish work by others, or materials, services or equipment designated to be furnished by TTFW so as to reasonably meet the demands of the subcontract schedule of the work, will operate to postpone the dates specified for completing the affected portion of the work, if, in the opinion TTFW, such failure actually delays Subcontractor's work. Subcontractor shall not be entitled to additional compensation as a result of TTFW's failure to furnish work, materials, services or equipment as identified herein pursuant to any schedule other than the Subcontract Schedule. In the event that Subcontractor desires the work, materials, services and/or equipment ahead of the Subcontract Schedule, then Subcontractor shall fully coordinate such request with TTFW well in advance of the accelerated need date. TTFW makes no guarantees to Subcontractor that the desired work, materials, services, and/or equipment will be furnished to Subcontractor in advance of the Subcontract Schedule.

7.0 MEASUREMENT AND PAYMENT

Subcontractor shall submit a single invoice to TTFW at the completion of all work elements incorporated in the Schedule of Values Pay Items and Subcontractor's cumulative progress against each Pay Item based on actual progress of work, as reported to and validated by TTFW. TTFW shall

evaluate Subcontractor's status of all work completed. The basis for establishing level of progress shall include, but is not limited to: TTFW's visual inspection of the work and review of Subcontractor's submittals. In the event that invoice adjustments are required by TTFW based on the evaluation of work performed, Subcontractor shall make such adjustments and submit a revised invoice to TTFW.

Measurement of work performed shall be based on the progress of the work and the amount of work completed. The table below describes the work associated with each Pay Item listed on the Schedule of Values (Attachment B). The lump sum and unit prices provided by the Subcontractor for each pay item in the Schedule of Values shall cover Subcontractor's full and complete compensation, satisfaction, and discharge for all work done and all costs and expense incurred, damages sustained, and for each and every matter, thing or act performed, furnished or suffered in the full and complete performance and completion of the work of this Subcontract, except as may be modified pursuant to the General Terms and Conditions.

SOW Item	Pay Item Description
1	Mobilization/Demobilization – This item is measured as a unit rate for mobilization/demobilization. TTFW will pay the Subcontractor on a per-site visit basis (up to and not to exceed 2 site visits) for collection of wastes for transport and disposal.
2a	Collection, Transport and Disposal of Fuel/Water/Oil Mixture Liquid from Fuel Pier – This item is measured as a unit rate for the collection, transport and disposal of liquid from the pier pipelines (Lines 2, 3, and 4), tanks and hoses, and diesel generator. TTFW will pay the Subcontractor on a per gallon basis up to and not to exceed 14,500 gallons. Pricing for California hazardous material is requested. There is no minimum quantity guaranteed for this line item. It is anticipated that the quantity of liquid could be significantly less than that allowed for in this line item. There will be no price adjustments for lower quantities than allowed for in this line item. This line item also includes preparation of waste profile documentation and disposal facility coordination using generator information and analytical data provided by TTFW.
2b	Collection, Transport and Disposal of Fuel/Water/Oil Mixture Liquid from Fuel Pier – This item is measured as a unit rate for the collection, transport and disposal of liquid from the pier pipeline (Line C). TTFW will pay the Subcontractor on a per gallon basis up to and not to exceed 1,500 gallons. Pricing for RCRA hazardous material is requested. There is no minimum quantity guaranteed for this line item. It is anticipated that the quantity of liquid could be significantly less than that allowed for in this line item. There will be no price adjustments for lower quantities than allowed for in this line item. This line item also includes preparation of waste profile documentation and disposal facility coordination using generator information and analytical data provided by TTFW.
3	Collection, Transport and Disposal of Oily Liquid from Oil/Water Separator – This item is measured as a unit rate for the collection, transport and disposal of oily liquid from an oil/water separator. TTFW will pay the Subcontractor on a per gallon basis up to and not to exceed 1,000 gallons. Pricing for RCRA hazardous material is requested. There is no minimum quantity guaranteed for this line item. It is possible that the quantity of drums could be significantly less than that allowed for in this line item. There will be no price adjustments for lower quantities than allowed for in this line item. This line item also includes preparation of waste profile documentation and disposal facility coordination using generator information and analytical data provided by TTFW.
4	Collection, Transport and Disposal of Product from Oil Recovery Tank – This item is measured as a unit rate for the collection, transport and disposal of petroleum product from an oil recovery tank. TTFW will pay the Subcontractor on a per gallon basis up to and not to exceed 500 gallons. Pricing for California hazardous material is requested. There is no minimum quantity guaranteed for this line item. It is possible that the quantity of drums could be significantly less than that allowed for in this line item. There will be no price adjustments for lower quantities than allowed for in this line item. This line item also includes preparation of waste profile documentation and disposal facility coordination using generator information and analytical data provided by TTFW.

5	Standby Time – This item is measured as a unit rate for standby time. TTFW will pay the Subcontractor at an hourly rate (up to and not to exceed 8 hours) for delays where either TTFW or the Navy has to stop work at the site for more than 1 hour per day.
---	---

N30519_000379
NFD POINT MOLATE
SSIC NO. 5090.3

ATTACHMENTS

ATTACHMENT A – ACTIVITY HAZARDS ANALYSIS

PAGE 15

THIS ATTACHMENT IS NOT AVAILABLE.

EXTENSIVE RESEARCH WAS PERFORMED BY NAVFAC
SOUTHWEST RECORDS OFFICE TO LOCATE THE MISSING
ATTACHMENT. THIS PAGE HAS BEEN INSERTED AS A
PLACEHOLDER AND WILL BE REPLACED SHOULD THE
MISSING ITEM BE LOCATED.

FOR ADDITIONAL INFORMATION, CONTACT:

DIANE C. SILVA, COMMAND RECORDS MANAGER, CODE EV33
NAVAL FACILITIES ENGINEERING COMMAND, SOUTHWEST
1220 PACIFIC HIGHWAY (NBSD BLDG. 3519)
SAN DIEGO, CA 92132

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil

ATTACHMENT B – SCHEDULE OF VALUES (BID SHEET)

PAGE 16

THIS ATTACHMENT IS NOT AVAILABLE.

EXTENSIVE RESEARCH WAS PERFORMED BY NAVFAC
SOUTHWEST RECORDS OFFICE TO LOCATE THE MISSING
ATTACHMENT. THIS PAGE HAS BEEN INSERTED AS A
PLACEHOLDER AND WILL BE REPLACED SHOULD THE
MISSING ITEM BE LOCATED.

FOR ADDITIONAL INFORMATION, CONTACT:

DIANE C. SILVA, COMMAND RECORDS MANAGER, CODE EV33
NAVAL FACILITIES ENGINEERING COMMAND, SOUTHWEST
1220 PACIFIC HIGHWAY (NBSD BLDG. 3519)
SAN DIEGO, CA 92132

TELEPHONE: (619) 556-1280

E-MAIL: diane.silva@navy.mil

ATTACHMENT 2
QUALITY CONTROL FORMS



FOLLOW-UP PHASE CHECKLIST

DATE/SHIFT		REPORT NO.			
PROJECT NAME/NUMBER					
ITEM/ACTIVITY INSPECTED					
DRAWING REFERENCE	REV.	DRAWING REFERENCE	REV.		
INSPECTION ATTRIBUTE	SPECIFICATION REFERENCE	ACCEPTANCE CRITERIA	INSPECTION RESULT	ACCEPT/REJECT	
REQUESTS FOR INFORMATION ISSUED/SUBJECT			REFERENCE NO.		
FCRs ISSUED/SUBJECT			REFERENCE NO.		
NONCONFORMANCES ISSUED/SUBJECT			REFERENCE NO.		
REINSPECTION REQUIRED	YES	NO			
COMMENTS					
QC MANAGER			DATE		



COMPLETION INSPECTION CHECKLIST

CONTRACT NAME AND TITLE: _____

DATE: _____

MAJOR DEFINABLE FEATURES OF WORK: _____

LOCATION: _____

SPEC SECTION: _____

(Refer to Follow-Up Phase Checklist)

A. OPEN PUNCHLIST ITEMS FROM FOLLOW-UP PHASE CHECKLIST:

ITEM	DATE OF COMPLETION
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

B. NEW PUNCHLIST ITEMS NOTED:

ITEM	DATE OF COMPLETION
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

C. ROICC NOTIFIED? Yes No

On behalf of Foster Wheeler Environmental Corporation, I certify this activity is completely in accordance with the Contract Documents, based upon the information available to me.

Project Quality Control Manager



NONCONFORMANCE REPORT

REPORT NO _____

CONTRACT NO. AND TITLE		DRAWING NO/SPEC NO.
SUPPLIER, CONSTRUCTION QC OR CONTRACTOR	P. O. NO.	
DESCRIPTION OF COMPONENT, PART OR SYSTEM		

I. DESCRIPTION OF NONCONFORMANCE (Items involved, Specifications, Code or Standard to Which Items Do Not Comply, Submit Sketch (If Applicable))

NAME AND SIGNATURE OF PERSON REPORTING NONCONFORMANCE	TITLE/COMPANY	DATE
---	---------------	------

II. RECOMMENDED DISPOSITION (Submit Sketch If Applicable)

NAME AND SIGNATURE OF PERSON RECOMMENDING DISPOSITION	TITLE/COMPANY	DATE
---	---------------	------

III. EVALUATION OF DISPOSITION BY FOSTER WHEELER ENVIRONMENTAL. REASON OF DISPOSITION

IV. CORRECTIVE ACTION Required Not Required

V. <input type="checkbox"/> ENGINEERING	<input type="checkbox"/> QUALITY ASSURANCE	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> OTHER
NAME (SIGNATURE)	NAME (SIGNATURE)	NAME (SIGNATURE)	NAME (SIGNATURE)
DATE	DATE	DATE	DATE
<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED			
<input type="checkbox"/> ACCEPTED WITH COMMENTS			

VI. VERIFICATION OF DISPOSITION REQUIRED NOT REQUIRED

BY: SIGNATURE _____ TITLE _____ DATE _____



PHOTOGRAPH LOG SHEET

Photographer _____

Date Submitted _____ Roll No. _____

Frame	Date	Time	Location/Grid No.	Description/Work No.	Notes
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					
31.					
32.					
33.					
34.					
35.					
36.					



REQUEST FOR ENGINEERING INFORMATION (REI)

Sheet ___ of ___

REI No. Issue Date _____ Closure Date _____

Work Area: _____ Subcontractor: _____

Applicable Plans, Drawings, Specifications: _____

Information Requested: _____

Subcontractor Signature: _____ Date: _____

Foster Wheeler Environmental Response: _____

Project Engineer Signature: _____ Date: _____

Project Manager Signature: _____ Date: _____

- Distribution: CTO MANAGER: K. Weingardt, PQCM: Randy Rose, QCM: M. Schneider, Navy RPM: J. Kowalczyk, ROICC: I. Ahmadiyya, Subcontractor: _____



REQUEST FOR INFORMATION (RFI)

Sheet ___ of ___

RFI No. _____ Issue Date _____ Closure Date _____

Work Area: _____

Applicable Plans, Drawings, Specifications: _____

Information Requested: _____

Project Quality Control Manager Signature: _____ Date: _____

EFDSW RPM Response: _____

EFDSW RPM Signature: _____ Date: _____

ROICC Response: _____

ROICC Signature: _____ Date: _____

Distribution:

- CTO MANAGER: K. Weingardt
- PQCM: Randy Rose
- QCM: M. Schneider
- Navy RPM: J. Kowalczyk
- ROICC: I. Ahmadiyya
- Subcontractor: _____

FOSTER WHEELER ENVIRONMENTAL CORPORATION
NAVY RAC PROJECT

CONTRACT NO. _____
**FIELD CHANGE REQUEST
(FCR)**

CONTRACT TASK ORDER NAME	CTO #	CHANGE REQUEST NO. FCR-
TO NAVY NTR/RPM/COTR	LOCATION	DATE

RE:

<input type="checkbox"/> Drawing No. _____	Title _____
<input type="checkbox"/> Spec Section _____	Title _____
<input type="checkbox"/> Other _____	_____

1. DESCRIPTION (Items involved, submit sketch, if applicable):

2. REASON FOR CHANGE

3. RECOMMENDED DISPOSITION (Submit sketch, if applicable):

Minor Change
 Major Change (Impacts Cost, Schedule or Technical)

3a. Will this change result in a contract cost or time change? YES NO

3b. Estimate of contract cost or time charge (if any) _____

PREPARER (Signature)	DATE	PREPARER'S TITLE	SITE SUPERINTENDENT (Signature)	DATE
----------------------	------	------------------	---------------------------------	------

4. DISPOSITION

Not approved (give reason).

Considered minor change - approved per Recommended Disposition - Documents will not formally be revised, field to maintain as-built records.

Considered major change - Navy approval required via contract modification process.

1) FOSTER WHEELER ENVIRONMENTAL REGIONAL ENGINEER (Signature) (IF ENGINEERING RELATED)	DATE	2) FOSTER WHEELER ENVIRONMENTAL PROJECT MANAGER (Signature)	DATE
3) CIH (Signature) (IF HEALTH AND SAFETY RELATED)	DATE	4) REGIONAL SCIENTIST (Signature) (IF SCIENCE RELATED)	DATE
<input type="checkbox"/> Comments (attached) <input type="checkbox"/> No Comments		<input type="checkbox"/> Comments (attached) <input type="checkbox"/> No Comments	
5) QC PROGRAM MANAGER (Signature))	DATE		
<input type="checkbox"/> Comments (attached) <input type="checkbox"/> No Comments			

Project Manager distributes to:

CAM Regional Engineer Regional Scientist	QCM Site Superintendent	FCR Preparer CIH
--	----------------------------	---------------------

INITIAL PHASE CHECKLIST

INITIAL PHASE CHECKLIST		SPEC SECTION Enter Spec Section # Here	DATE Enter Date (DD/MMM/YY)
CONTRACT NO Enter Cnt# Here	DEFINABLE FEATURE OF WORK Enter DFOW Here	SCHEDULE ACT NO. Enter Sched Act ID Here	INDEX # Enter Index# Here

PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES <input type="checkbox"/> NO <input type="checkbox"/>	
	NAME	POSITION

PROCEDURE COMPLIANCE	IDENTIFY FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY. COORDINATE PLANS, SPECIFICATIONS, AND SUBMITTALS. COMMENTS: _____

PRELIMINARY WORK	ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT. IF NOT, WHAT ACTION IS TAKEN? _____ _____ _____ _____
-------------------------	--

WORKMANSHIP	ESTABLISH LEVEL OF WORKMANSHIP. WHERE IS WORK LOCATED? _____
	IS SAMPLE PANEL REQUIRED? YES <input type="checkbox"/> NO <input type="checkbox"/>
	WILL THE INITIAL WORK BE CONSIDERED AS A SAMPLE? YES <input type="checkbox"/> NO <input type="checkbox"/>
	(IF YES, MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE AND DESCRIBE LOCATION OF SAMPLE) _____

RESOLUTION	RESOLVE ANY DIFFERENCES. COMMENTS: _____

CHECK SAFETY	REVIEW JOB CONDITIONS USING EM 385-1-1 AND JOB HAZARD ANALYSIS COMMENTS: _____

OTHER	OTHER ITEMS OR REMARKS _____ _____
--------------	--

_____ QC MANAGER	_____ DATE
---------------------	---------------



NONCONFORMANCE REPORT LOG SHEET

NCR No.	Date of Issue	Description of Condition	Point of Contact	Date of Anticipated Corrective Action	Date of Completed Corrective Action

PHOTOGRAPH LOG SHEET

Date Submitted

Roll No.

Contract No.: N68711-98D-5713, CTO No. 0067

Contract Title: Naval Fuel Depot Point Molate,
Richmond, California

Photographer:

Frame	Date	Time	Location/Grid No.	Description/Work No.	Notes
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					
31.					
32.					
33.					
34.					

PREPARATORY PHASE CHECKLIST

SPEC SECTION

DATE

(CONTINUED ON SECOND PAGE)

CONTRACT NO
N44255-95-D-6030

DEFINABLE FEATURE OF WORK

SCHEDULE ACT NO.

INDEX #

PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES <input type="checkbox"/> NO <input type="checkbox"/>	
	NAME	POSITION

SUBMITTALS	REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/>
	IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____
	ARE ALL MATERIALS ON HAND? YES <input type="checkbox"/> NO <input type="checkbox"/>
	IF NO, WHAT ITEMS ARE MISSING? _____
	CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.)
	COMMENTS: _____

MATERIAL STORAGE	ARE MATERIALS STORED PROPERLY? YES <input type="checkbox"/> NO <input type="checkbox"/>
	IF NO, WHAT ACTION IS TAKEN? _____

SPECIFICATIONS	REVIEW EACH PARAGRAPH OF SPECIFICATIONS. _____
	DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK. _____
	CLARIFY ANY DIFFERENCES. _____

PRELIMINARY WORK & PERMITS	ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE.
	IF NOT, WHAT ACTION IS TAKEN? _____

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE Enter (DD/MMM/YY)
 REPORT NO Enter Rpt # Here

PHASE CONTRACT NO Enter Cnt# Here CONTRACT TITLE Enter Title and Location of Construction Contract Here

PREPARATORY	WAS PREPARATORY PHASE WORK PREFORMED TODAY? YES <input type="checkbox"/> NO <input type="checkbox"/>		
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECKLIST.		
	Schedule Activity No.	Definable Feature of Work	Index #

INITIAL	WAS INITIAL PHASE WORK PREFORMED TODAY? YES <input type="checkbox"/> NO <input type="checkbox"/>		
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL INITIAL PHASE CHECKLIST.		
	Schedule Activity No.	Definable Feature of Work	Index #

FOLLOW-UP	WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITIAL PHASE? YES <input type="checkbox"/> NO <input type="checkbox"/>		
	WORK COMPLIES WITH SAFETY REQUIREMENTS? YES <input type="checkbox"/> NO <input type="checkbox"/>		
	Schedule Activity No.	Description of Work, Testing Performed & By Whom, Definable Feature of Work, Specification Section, Location and List of Personnel Present	

REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)		REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)	
Schedule Activity No.	Description	Schedule Activity No.	Description

REMARKS (Also Explain Any Follow-Up Phase Checklist Item From Above That Was Answered "NO"), Manuf. Rep On-Site, etc.	
Schedule Activity No.	Description

 AUTHORIZED QC MANAGER AT SITE DATE

GOVERNMENT QUALITY ASSURANCE REPORT DATE

QUALITY ASSURANCE REPRESENTATIVE'S REMARKS AND/OR EXCEPTIONS TO THE REPORT	
Schedule Activity No.	Description

 GOVERNMENT QUALITY ASSURANCE MANAGER DATE

ATTACHMENT 3
ACTIVITY HAZARD ANALYSES

ACTIVITY HAZARD ANALYSIS #1

Activity: Preparing to perform removal of liquids from tanks and piping

Analyzed By/Date: M. Lostracco / C. Simpson 11/08/03 Reviewed By: Roger Margotto, CIH

Principal Steps	Potential Hazards	Recommended Controls
Inspect equipment and work area	<p>Potential exposure to chemical hazards.</p> <p>Noise exposure.</p> <p>Slip, trip and fall hazards.</p> <p>Fall off the pier into the bay.</p> <p>Sharp objects/punctures.</p> <p>Strains from manually moving materials and equipment.</p>	<ul style="list-style-type: none"> • Use proper PPE. • Use air monitoring and visual observation to verify selection of PPE. • Identify all chemical hazards and receive training (MSDS) regarding safe handling of chemicals. The SHSS will file copies of all MSDSs at the site. • Hearing protection is required when sound levels exceed 84 dBA continuously. Areas where hearing protection is required will display warning signs requiring hearing protection. • Work areas will be visually inspected, and slip, trip, and fall hazards shall be marked, barricaded, or eliminated, if feasible. • Do not work close to the edge of the pier. (Must be at least 6 feet from edge of pier wherever the next lowest level is 6 feet or greater, unless there is a fall protection system consisting of guardrails meeting Cal-OSHA specifications or workers are wearing a full-body harness attached to a safety lanyard. The lanyard must be attached to an anchor point that can withstand a load of 5,000 pounds for each worker.) • Have personal floatation device (life jacket). • Install life preserver stations and emergency boat. • Wear cut-resistant work gloves when sharp edges or other objectives may cause the possibility of lacerations or other injury. • Workers should not stand or walk on equipment. • Personnel shall be directed to use proper lifting techniques such as keeping the back straight, lifting with legs, limiting twisting, and getting help with moving bulky/heavy materials and equipment. • Employees will not lift more than 50 pounds.

ACTIVITY HAZARD ANALYSIS #1

Activity: Preparing to perform removal of liquids from tanks and piping

Analyzed By/Date: M. Lostracco / C. Simpson 11/08/03

Reviewed By: Roger Margotto, CIH

<p>Inspect equipment and work area (continued)</p>	<p>Exposure to extreme temperatures.</p> <p>Eye hazards.</p> <p>Lack of communication at pier.</p> <p>Stuck by heavy equipment (truck).</p>	<ul style="list-style-type: none"> • Monitor for heat stress in accordance with EHS Procedure 4-6, Temperature Extremes. • Provide fluids and rest breaks during warm weather and while wearing impermeable protective clothing. • Safety glasses are the minimum required eye protection for all work areas. • Ensure that each worker has a telephone or radio or access to a telephone or radio for communication. • If more than one worker at a time is working, ensure that there is communication between the workers and that there is a communication means of immediately summoning help (cellular telephone). • Wear high-visibility reflective vest. • Make eye contact with operators. • Understand and use proper hand signals. • Use traffic signs, flags, and backup spotters.
<p>Personnel</p>	<p>Ensure proper training.</p>	<ul style="list-style-type: none"> • 40-hour training (HAZWOPER) by 29 CFR 1910.120. (Cal-OSHA 8CCR 5192) • Maintain current 8-hour refresher course. • Current medical certification to wear respirator and perform work as required by Cal-OSHA.

ACTIVITY HAZARD ANALYSIS #1

Activity: Preparing to perform removal of liquids from tanks and piping

Analyzed By/Date: M. Lostracco / C. Simpson 11/08/03

Reviewed By: Roger Margotto, CIH

Equipment to be Used	Inspection Requirements	Training Requirements
Heavy equipment, hand and power tools	Daily and before use.	<ul style="list-style-type: none"> • Only trained equipment operators may operate heavy equipment; only Department of Motor Vehicles-licensed personnel will operate truck. • Specific training for power tools, hand tools, and electrical safety.

Notes:

Cal-OSHA – California Occupational Health and Safety Administration
 CCR – California Code of Regulations
 CIH – Certified Industrial Hygienist
 CFR – Code of Federal Regulations
 dBA - decibels, A-scale
 EHS – Environmental Health and Safety
 HAZWOPER – Hazardous Waste Operations
 MSDS – Material Safety Data Sheet
 PPE – personal protection equipment
 SHSS – Site Health and Safety Specialist

ACTIVITY HAZARD ANALYSIS #2

Activity: Removing liquids from tanks and pipeline

Analyzed By/Date: M. Lostracco / C. Simpson 11/08/03

Reviewed By: Roger Margotto, CIH

Principal Steps	Potential Hazards	Recommended Controls
Open tank covers	<p>Back Strains.</p> <p>Exposure to chemical contaminants.</p> <p>Slips, trips, and falls.</p>	<ul style="list-style-type: none"> • Do not lift more than 50 pounds. • Avoid prolonged repetitive motion. Rotate job task with other workers. • Avoid awkward bending or stretching to reach locations. • Get help or use mechanical lifting devices for heavy loads. • Wear required PPE (steel-toe boots, safety glasses, nitrile gloves, polyethylene coated Tyvek® coveralls or PVC rainsuits). • Conduct visual inspection and ambient air monitoring (FID or PID will be determined by inspection). • Respiratory protection required if breathing zone measurements are 10 ppm or greater (using FID or PID). Contact PESM before using respirators. • Remove PPE properly and wash hands. • Maintain good housekeeping as per EHS Procedure 3-8, Fall Protection. • Note requirements in AHA #1 regarding fall protection requirements (any work closer than 6 feet to edge that is 6 feet or higher over the next lower level requires the use of a fall protection system). • Mark or remove all identified trip and slip hazards. • Maintain proper illumination in work areas.

ACTIVITY HAZARD ANALYSIS #2

Activity: Removing liquids from tanks and pipeline

Analyzed By/Date: M. Lostracco / C. Simpson 11/08/03

Reviewed By: Roger Margotto, CIH

Open tank covers	Confined space entry.	<ul style="list-style-type: none"> • Do not put face anywhere above pipe or tank openings. • Do not break the plane of opening with any body part, unless a confined space entry permit has been completed. • Only certified personnel can enter a confined space. • At least three persons must be present for a confined space entry. • No entry is allowed without verbal approval of the PESH on the day of entry.
Placing hoses into tanks to collect all fluids	Strains from use of tools such as extension poles. Inadvertent placement of hands or feet into opening causing a confined space entry that has not been authorized. Placing head above opening exposing workers to the chemical hazards.	<ul style="list-style-type: none"> • Inspect all tools for damage before use. • Do not use damaged tools. Install "out of service" tags. • Maintain steady pace and follow the rest periods given on the job. • Inspect all hoses before use. • Avoid having the hose end come in contact with any person as the suction of the hose can cause injury to a worker. • Use fall protection as specified above and in AHA #1. • Never put face over tank openings.
Remove hoses from tanks	Atmospheric and contact hazards from contaminated water or product or exposed to the collected product. Liquid could splash into eyes.	<ul style="list-style-type: none"> • Wear required PPE. • Avoid having the exterior of the hose come in contact with any other surface until such time as the outside of the hoses are decontaminated. Ensure that hose will not drip products as it is removed from the tank. • Decontaminate exterior of hoses. Avoid spills. Ensure that spill cleanup supplies are available. • Eyewashes meeting Cal-OSHA requirements must be available within 10 seconds of wherever liquids are being handled. Eyewashes must have a 15-minute supply of water (0.4 gpm for 15 minutes.). Water in portable eyewashes must be changed weekly.

ACTIVITY HAZARD ANALYSIS #2

Activity: Removing liquids from tanks and pipeline

Analyzed By/Date: M. Lostracco / C. Simpson 11/08/03

Reviewed By: Roger Margotto, CIH

<p>Remove hydraulic fluid from lines and tanks of equipment</p>	<p>Line or tank could still be pressurized. Removal of fluid could cause booms or other equipment parts to fall.</p>	<ul style="list-style-type: none"> • Wear required PPE. • Ensure that hydraulic lines and tanks are not pressurized by slowly opening the tank cover or hydraulic hose connection. • Ensure that all hydraulic mechanisms are in a "zero" state, or tie off and block all hydraulically operated devices prior to draining fluid. • When removing collection hose, ensure that liquid inside the hose does not drip out on to nearby surfaces. Ensure that spill control supplies are nearby. • Eyewashes meeting Cal-OSHA requirements must be available within 10 seconds of wherever liquids are being handled. Eyewashes must have a 15-minute supply of water (0.4 gpm for 15 minutes.). Water in portable eyewashes must be changed weekly.
<p>Removing liquid from pipelines</p>	<p>When opening valves or pipe caps, liquids could drip out of pipe. Workers could be exposed to contents of pipes. Workers could be exposed to lead-based paint or asbestos on exterior of pipes. Hose connections to pipes could fail causing workers to be exposed to contents. Pipes could collapse if too strong a vacuum is applied to the line.</p>	<ul style="list-style-type: none"> • Have spill control supplies available. • Eyewashes meeting Cal-OSHA requirements must be available within 10 seconds of wherever liquids are being handled. Eyewashes must have a 15-minute supply of water (0.4 gpm for 15 minutes.). Water in portable eyewashes must be changed weekly. • Avoid contact with pipe surfaces unless wearing PPE. Avoid disturbing the surface of the pipe to minimize generation of asbestos containing dust and fibers. • Wear required PPE. • Monitor vacuum pressure.

ACTIVITY HAZARD ANALYSIS #2

Activity: Removing liquids from tanks and pipeline

Analyzed By/Date: M. Lostracco / C. Simpson 11/08/03

Reviewed By: Roger Margotto, CIH

<p>Use of vacuum truck for pumping liquids.</p>	<p>Truck is too heavy to drive on pier. There may be tight spaces around the truck as the pier is narrow. Truck could leak petroleum-based liquids (oil and hydraulics) or condensate from vacuum pump. Noise from vacuum pump. Truck could move while on the pier. Odors from the vacuum system. Hoses could fail, create trip hazards. Workers could injure themselves when disconnecting hoses by pulling too hard and then the hose fitting hits them.</p>	<ul style="list-style-type: none"> • Ensure that pier is structurally sound to support weight of truck and contents of tank. Verify this through structural assessment and engineering observations. Never park truck near ends of pier. • Ensure that truck is parked in such a manner to allow easy access to controls and to the cab of the vehicle. • It may be necessary to place pans under the trucks to collect leaking fluids. • Wearing hearing protection while working near the truck. • The truck must be parked with parking brake set and the wheels must be chocked to prevent forward or backward movement of the truck. • Wear respiratory protection specified above if breathing zone vapors exceed 10 ppm. Contact PESM for respirator specification and cartridge change schedule. • Use care when handling hoses. Avoid creating a trip hazard on paths to controls and cab of truck. Never break connections by using excessive force. Wear face shield if necessary.
---	--	---

Equipment to be Used	Inspection Requirements	Training Requirements
Hand tools	Daily and before use.	Specific training for hand tools will be provided.
Ladders, fall protection, retrieval systems	Before each use.	Specific training for equipment will be provided.
Eye wash station	Daily.	Specific training for operation will be provided.
First aid kits	Site-specific inspection.	Be aware of locations.
Fire extinguisher	Site-specific inspection.	Be aware of locations.
Life jackets and life perseveres	Daily and before use.	Specific training for equipment will be provided.
Fall protection harness	Daily and before use.	Specific training for equipment will be provided.

Notes:

- AHA – Activity Hazard Analysis
- Cal-OSHA – California Occupational Safety and Health Administration
- CIH – Certified Industrial Hygienist
- EHS – Environmental Health and Safety
- FID – flame ionization detector
- gpm – gallons per minute
- PESM – Project Environmental and Safety Manager
- PID – photoionization detector
- PPE – personal protection equipment
- ppm –parts per million.