PORT OF OAKLAND

April 23, 2015

RECEIVED
By Alameda County Environmental Health 10:00 am, Apr 29, 2015

Mr. Keith Nowell
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6540

Subject: **ACEH SCP Case File RO470**
Addendum to Post-Construction Work Plan
Former APL Terminal, Port of Oakland
Berths 60-63 Redevelopment Project
1395 Middle Harbor Road, Oakland, CA

Dear Mr. Nowell:

Attached please find a *Post-Construction Work Plan* (Work Plan) addendum prepared by AMEC Environment & Infrastructure, Inc. (AMEC) on behalf of the Port of Oakland (Port). The purpose of the Work Plan and addendum work plan is to assess the extent of contamination identified during previous construction work at the former American President (APL) Terminal, Berths 60-63 at 1395 Middle Harbor Road, Port of Oakland. The scope of work described in this Work Plan addendum is based on recommendations presented in the Post-Construction Closure Report (PCCR) dated August 13, 2013 and comments on the PCCR prepared by Alameda County Department of Environmental Health (ACEH) presented in the ACEH SCP Case File RO470 letter dated June 4, 2014.

I declare under penalty of perjury, that the information contained in the attached document is true and correct to the best of my knowledge.

Sincerely yours,

John Prall, PG
Port Associate Environmental Scientist
Port Environmental Programs & Planning Division

Enclosure

CC: David Nanstad, AMEC
Anne Whittington, Port of Oakland
Yane Nordhav, Baseline Environmental Consulting

530 Water Street ■ Jack London Square ■ P.O. Box 2064 ■ Oakland, California 94604-2064
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April 22, 2015

Project OD14170810.02

Mr. Keith Nowell
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6540

Subject: **Addendum to Post-Construction Work Plan**
Former APL Terminal, Port of Oakland
Oakland, California

Dear Mr. Nowell:

On behalf of the Port of Oakland, Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), has prepared this Addendum to the Post-Construction Work Plan (Addendum) for an investigation to assess the extent of contamination identified during previous construction work at the former American Presidents Line (APL) Terminal at Berths 60–63 at 1395 Middle Harbor Road, Port of Oakland (Port), Oakland, California (the site). This Addendum has been prepared to describe the additional work items requested by the Alameda County Environmental Health Department (ACEH) within their comments on the November 7, 2014 Work Plan. The comments were presented in a letter from the ACEH dated March 30, 2015. A copy of the ACEH letter is attached to this Addendum.

The following provides ACEH technical comments and a description of additional sampling, analyses, or clarification to address ACEH comments on the Work Plan and changes to boring locations based on results of utility clearance findings.

ACEH Technical Comments

1. **Soil Sampling:**

   In addition to the soil sampling presented in the Work Plan, ACEH requests that soil samples be collected at areas of obvious contamination and at significant changes in lithology. If staining, odor, or elevated PID readings are observed, a sufficient number of soil samples from this interval are requested to be submitted for laboratory analyses to characterize the contamination within this interval. Please ensure that the analytical results define the vertical and horizontal extent of contamination at the site.

   In order to evaluate the site against State Water Resources Control Board's (SWRCB's) Low Threat Underground Storage Tank Case Closure Policy (LTCP), ACEH requests a soil sample be recovered from each of the borings from the interval of 5- to 10- feet below ground surface (bgs) and submitted for laboratory analysis.

   Response: As described in the November 7, 2014 Work Plan, soil samples are planned to be collected from soil borings at 2 and 4 feet bgs and just above the water table. Based on ACEH comments, if contamination is observed in the soil boring, the targeted

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sample interval will be adjusted so that soil with evidence of contamination is collected for analysis. If contamination occurs below 4 feet bgs and above the water table, an additional sample will be collected for laboratory analysis at the depth at which contamination is observed. Concerning the ACEH request that samples be collected between 5 and 10 feet bgs, it is anticipated that the sample collected at the soil/groundwater interface will meet this requirement.

Because the occurrence or depth of soil contamination is not known, nor is precise information concerning depth to water known at each boring location, Table 1, Sampling and Analysis Plan, has not been revised to include additional samples or modifications to sample depths. However, a note has been added to Table 1 indicating that sample intervals may be adjusted or additional samples collected based on observations during drilling.

Case 009 – *Three borings, APLB-12 through APLB-14, are proposed with two borings located downgradient, approximately 15 feet south of the original Case 009 trench excavation; and one boring advanced approximately 15 feet north of the former trench. Soil and the grab-groundwater sample will be analyzed for total petroleum hydrocarbons (TPH) as diesel (TPHd) and TPH as motor oil (TPHmo) using Environmental Protection Agency (EPA) Test Method 8015M.*

ACEH requests that an additional soil boring be advanced to the east and one to the west of the Case 009 trench location in order to define the lateral extents of contamination.

Due to the reported elevated metal concentrations reported in the vicinity of Case 009, ACEH requests the addition of the analysis for CAM 17 metals for soil samples collected in this area.

Response: Two additional borings (APLB-20 and APLB-21) will be drilled at locations west and east of the Case 009 trench as shown on Revised Figure 6 (attached). Soil samples will be collected as described above. One grab groundwater sample will also be collected from each additional boring for chemical analysis. Based on ACEH's request, all Case 009 soil samples will be analyzed for CAM 17 metals. Table 1 (attached) has been revised to include the additional samples and analyses that will be performed on samples collected from Case 009 borings.

Case 010 – *Four borings, APLB-15 through APLB-18, are proposed with one boring located approximately 15 feet from the southwest end of the former Case 010 trench location; one boring will be located approximately 15 feet from the northeast end of the former Case 010 trench location; and two boring will be drilled approximately 75 feet apart between the eastern edge of the former Case 010 trench location and an adjacent subsurface storm drain line. Soil and the grab-groundwater sample will be analyzed for TPH as gas (TPHg), TPHd, and TPHmo using EPA Test Method 8015M, volatile organic compounds (VOCs) by EPA 8260B and semi-volatile organic compounds (SVOCs) by EPA 8270SIM.*

ACEH request that an additional soil boring be advanced to the west of the Case 010 trench location in order to define the lateral extents of contamination. Please locate the boring opposite the mid-point between APLB-16 and APLB-17 shown on Figure 3 of the Work Plan.

Response: One additional boring, APLB-19, will be drilled and sampled at a location northwest of the former Case 010 trench. Soil samples will be collected as described above. A grab groundwater sample will also be collected from the additional boring for chemical analysis. Revised Figure 3 (attached) shows the new boring location and Table 1 (attached) has been revised to list samples that will be collected from that additional boring.

Building E-221 – *The Work Plan proposes the installation of three groundwater monitoring wells designated APLMW-1 through APLMW-3. No soil samples are proposed for recovery and laboratory analysis.*

In order to evaluate conditions at Building E-221 against the LTCP, ACEH request that soil samples be collected during boring advancement for the installation of the three monitoring wells following the Work Plan protocol and Technical Comment Protocol presented above. ACEH requests the soil sample be analyzed for TPHg, TPHd, and TPHmo; benzene, toluene, ethylbenzene, xylenes (BTEX); methyl tert-butyl ether (MTBE); naphthalene; and polycyclic aromatic hydrocarbons (PAHs).

Response: Section 2.5 of the November 7, 2014 Work Plan indicates that soil samples will be collected from each well borehole at depths of approximately 4 feet bgs and at the soil/groundwater interface. Section 2.9 and Table 1 of the Work Plan indicate that samples collected from Building E-221 will be analyzed for TPHg, TPHd, TPHmo, BTEX, and PAHs; PAH analyses includes naphthalene. In response to ACEH comments, Table 1 has been revised to indicate that EPA 8021B analyses for BTEX will also include MTBE. As stated in response to Technical Comment 1, a note has been added to Table 1 indicating that sample intervals may be adjusted or additional samples collected based on observations during drilling.

2. Groundwater Sampling

Case 009 – *Due to the reported elevated metal concentrations reported in the vicinity of Case 009, ACEH requests the addition of the analysis for CAM 17 metals for grab-groundwater samples collected in this area.*

Response: Grab groundwater samples collected from Case 009 borings will be analyzed for CAM 17 metals. Table 1 (attached) has been revised accordingly.

Building E-221 – *In order to evaluate conditions at Building E-221 against the LTCP, ACEH requests that the monitoring well groundwater samples include the analyses for MTBE and naphthalene.*

Response: Table 1 has been revised to indicate that EPA 8021B analyses for BTEX will also include MTBE and also to clarify that PAH analyses will include naphthalene. Table 1 of the Work Plan indicates that groundwater samples collected from Building E-221 monitoring wells will be analyzed for those compounds.

Changes in Borehole Locations Based on Utility Clearance

Twelve proposed borehole locations were moved based on the presence of utilities or other access issues identified during borehole clearance work performed on April 17, 2015 as summarized below.

Monitoring Wells:

- APLMW-1: Moved approximately 2.5 feet east
- APLMW-3: Moved approximately 3 feet east

Case 002:

- APLB-1: Moved approximately 2.5 feet west
- B-2: Moved approximately 5 feet southeast
- B-4: Moved approximately 5 feet south

Case 005:

- B-8: Moved approximately 3 feet northwest.
- B-9 Moved approximately 3 feet south
- B-10: Moved approximately 10 feet north
- B-11: Moved approximately 2 feet northwest

Case 009:

- B-14: Moved approximately 5 feet south

Case 010:

- B-16: Moved approximately 2.5 feet northwest
- B-18: Moved approximately 4.5 feet east

We trust that this Addendum provides sufficient detail concerning ACEH requested changes and clarifications to the proposed soil and groundwater sampling program at the former APL Terminal. Field investigation work is scheduled to commence the week of April 27, 2015 and will continue through May 8, 2015.

Please contact the undersigned if you have questions or comments.

Sincerely yours,
Amec Foster Wheeler Environment & Infrastructure, Inc.

William Feller
Senior Geology Professional

Mary Jo Heassler, PG
Associate Geologist

David Nanstad, REPA, PE
Senior Engineer

WF/MJH/DN:sac
\\PET-FS1\projects\Secretarial\Bay Area - Pet CA\AC Alameda County\Post-Construction Work Plan\Addendum\AC64994_APL Terminal WP Addendum.docx

Attachments

Table 1	Sampling and Analysis Plan
Figure 3	Proposed Boring Locations – Cases 002 and 010
Figure 6	Proposed Boring Locations – Case 009

March 30, 2015 ACEH Letter – Modified Work Plan Approval for Site Cleanup Program Case No. RO0000470 and GeoTracker Global ID To600101969, Port of Oakland/ APL/ Berths 60-63, 1395 Middle Harbor Road, Oakland, CA 94612.

TABLE 1

SAMPLING AND ANALYSIS PLAN

Former APL Terminal, Port of Oakland

Case Area	Boring/ Well	Matrix	Sample Numbers [a]	Approximate Sample Depth [b]	Sample Type	Date	Lab ID	Test Method	VOCs (8260B)	BTEX and MTBE (8021B)	SVOCs (8270C)	PAHs (include napthalene)(8270 SIM)	TPHd, TPHmo (8015M)	TPHg (8015M)	Cam 17 Metals (6000-7000 Series)	Comments
								Soil Containers	3 terracore samplers	3 terracore samplers	One jar or liner					
								Aqueous Containers	3 x 40 mL VOA	3 x 40 mL VOA	2 x 1 L Amber	2 x 1 L Amber	1 x 1 L Amber	3 x 40 mL VOA	500 mL Poly	
002	APLB-1	soil	APLB-1(2.0)	2	Primary				X		X					
		soil	APLB-1(5.0)	5	Primary				X		X					
		soil	APLB-1(TBD)	TBD	Primary				X		X					
		water	APLB-1(GW)	NA	Primary				X		X					
	APLB-2	soil	APLB-2(2.0)	2	Primary				X		X					
		soil	APLB-2(5.0)	5	Primary				X		X					
		soil	APLB-2(TBD)	TBD	Primary				X		X					
		water	APLB-2(GW)	NA	Primary				X		X					
	APLB-3	soil	APLB-3(2.0)	2	Primary				X		X					
		soil	APLB-3(5.0)	5	Primary				X		X					
		soil	APLB-3(TBD)	TBD	Primary				X		X					
		water	APLB-3(GW)	NA	Primary				X		X					
	APLB-4	soil	APLB-4(2.0)	2	Primary				X		X					
		soil	APLB-4(5.0)	5	Primary				X		X					
		soil	APLB-4(TBD)	TBD	Primary				X		X					
		water	RBDATE	NA	QC				X		X					Rinsate blank
		water	TBDATE	NA	QC				X							Trip blank
		water	APLB-4(GW)	NA	Primary				X		X					
004	APLB-5	soil	APLB-5(2.0)	2	Primary				X		X		X			
		soil	APLB-5(5.0)	5	Primary				X		X		X			
		soil	APLB-5(TBD)	TBD	Primary				X		X		X			
		water	APLB-5(GW)	NA	Primary				X		X		X			
	APLB-15	soil	APLB-15(2.0)	2	Primary				X		X		X			
		soil	APLB-15(5.0)	5	Primary				X		X		X			
		soil	APLB-15(TBD)	TBD	Primary				X		X		X			
		water	APLB-15(GW)	NA	Primary				X		X		X			
	APLB-7	soil	APLB-7(2.0)	2	Primary				X		X		X			
		soil	APLB-7(5.0)	5	Primary				X		X		X			
		soil	APLB-7(TBD)	TBD	Primary				X		X		X			
		water	APLB-7(GW)	NA	Primary				X		X		X			
005	APLB-8	soil	APLB-8(2.0)	2	Primary				X		X		X	X		
		soil	APLB-8(5.0)	5	Primary				X		X		X	X		
		soil	APLB-8(TBD)	TBD	Primary				X		X		X	X		
		water	APLB-8(GW)	NA	Primary				X		X		X	X		
	APLB-9	soil	APLB-9(2.0)	2	Primary				X		X		X	X		
		soil	APLB-9(5.0)	5	Primary				X		X		X	X		
		soil	APLB-9(TBD)	TBD	Primary				X		X		X	X		
		water	APLB-9(GW)	NA	Primary				X		X		X	X		

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Former APL Terminal, Port of Oakland

Case Area	Boring/ Well	Matrix	Sample Numbers [a]	Approximate Sample Depth [b]	Sample Type	Date	Lab ID	Test Method	VOCs (8260B)	BTEX and MTBE (8021B)	SVOCs (8270C)	PAHs (include napthalene)(8270 SIM)	TPHd, TPHmo (8015M)	TPHg (8015M)	Cam 17 Metals (6000-7000 Series)	Comments
								Soil Containers	3 terracore samplers	3 terracore samplers	One jar or liner					
								Aqueous Containers	3 x 40 mL VOA	3 x 40 mL VOA	2 x 1 L Amber	2 x 1 L Amber	1 x 1 L Amber	3 x 40 mL VOA	500 mL Poly	
005	APLB-10	soil	APLB-10(2.0)	2	Primary				X		X		X	X		
		soil	APLB-10(5.0)	5	Primary				X		X		X	X		
		soil	APLB-10(TBD)	TBD	Primary				X		X		X	X		
		water	RBDATE	NA	QC				X		X		X	X		Rinsate blank
		water	TBDATE	NA	QC				X					X		Trip blank
		water	APLB-10(GW)	NA	Primary				X		X		X	X		
		water	DUPDATE-2	NA	Duplicate				X		X		X	X		
	APLB-11	soil	APLB-11(2.0)	2	Primary				X		X		X	X		
		soil	APLB-11(5.0)	5	Primary				X		X		X	X		
		soil	APLB-11(TBD)	TBD	Primary				X		X		X	X		
		water	APLB-11(GW)	NA	Primary				X		X		X	X		
009	APLB-12	soil	APLB-12(2.0)	2	Primary								X		X	
		soil	APLB-12(5.0)	5	Primary								X		X	
		soil	APLB-12(TBD)	TBD	Primary								X		X	
		water	APLB-12(GW)	NA	Primary								X		X	
	APLB-13	soil	APLB-13(2.0)	2	Primary								X		X	
		soil	APLB-13(5.0)	5	Primary								X		X	
		soil	APLB-13(TBD)	TBD	Primary								X		X	
		water	APLB-13(GW)	NA	Primary								X		X	
	APLB-14	soil	APLB-14(2.0)	2	Primary								X		X	
		soil	APLB-14(5.0)	5	Primary								X		X	
		soil	APLB-14(TBD)	TBD	Primary								X		X	
		water	APLB-14(GW)	NA	Primary								X		X	
	APLB-20	soil	APLB-14(2.0)	2	Primary								X		X	
		soil	APLB-14(5.0)	5	Primary								X		X	
		soil	APLB-14(TBD)	TBD	Primary								X		X	
		water	APLB-14(GW)	NA	Primary								X		X	
	APLB-21	soil	APLB-14(2.0)	2	Primary								X		X	
		soil	APLB-14(5.0)	5	Primary								X		X	
		soil	APLB-14(TBD)	TBD	Primary								X		X	
		water	APLB-14(GW)	NA	Primary								X		X	

TABLE 1

SAMPLING AND ANALYSIS PLAN

Former APL Terminal, Port of Oakland

Case Area	Boring/ Well	Matrix	Sample Numbers [a]	Approximate Sample Depth [b]	Sample Type	Date	Lab ID	Test Method	VOCs (8260B)	BTEX and MTBE (8021B)	SVOCs (8270C)	PAHs (include napthalene)(8270 SIM)	TPHd, TPHmo (8015M)	TPHg (8015M)	Cam 17 Metals (6000-7000 Series)	Comments
								Soil Containers	3 terracore samplers	3 terracore samplers	One jar or liner					
								Aqueous Containers	3 x 40 mL VOA	3 x 40 mL VOA	2 x 1 L Amber	2 x 1 L Amber	1 x 1 L Amber	3 x 40 mL VOA	500 mL Poly	
010	APLB-15	soil	APLB-15(2.0)	2	Primary				X		X		X	X		
		soil	APLB-15(5.0)	5	Primary				X		X		X	X		
		soil	APLB-15(TBD)	TBD	Primary				X		X		X	X		
		water	APLB-15(GW)	NA	Primary				X		X		X	X		
	APLB-16	soil	APLB-16(2.0)	2	Primary				X		X		X	X		
		soil	APLB-16(5.0)	5	Primary				X		X		X	X		
		soil	APLB-16(TBD)	TBD	Primary				X		X		X	X		
		water	APLB-16(GW)	NA	Primary				X		X		X	X		
	APLB-17	soil	APLB-17(2.0)	2	Primary				X		X		X	X		
		soil	APLB-17(5.0)	5	Primary				X		X		X	X		
		water	RBDATE	NA	QC				X		X		X	X		Rinsate blank
		water	TBDATE	NA	QC				X					X		Trip blank
		soil	APLB-17(TBD)	TBD	Primary				X		X		X	X		
		water	APLB-17(GW)	NA	Primary				X		X		X	X		
	APLB-18	soil	APLB-18(2.0)	2	Primary				X		X		X	X		
		soil	APLB-18(5.0)	5	Primary				X		X		X	X		
		soil	APLB-18(TBD)	TBD	Primary				X		X		X	X		
		water	APLB-18(GW)	NA	Primary				X		X		X	X		
	APLB-19	soil	APLB-18(2.0)	2	Primary				X		X		X	X		
		soil	APLB-18(5.0)	5	Primary				X		X		X	X		
		soil	APLB-18(TBD)	TBD	Primary				X		X		X	X		
		water	APLB-18(GW)	NA	Primary				X		X		X	X		
Former Building E-221	APLMW-1	soil	APLMW-1(4.0)	4	Primary					X		X	X	X		
		soil	APLMW-1(TBD)	TBD	Primary					X		X	X	X		
		water	APLMW-1(GW)	NA	Primary					X		X	X	X		
	APLMW-2	soil	APLMW-2(4.0)	4	Primary					X		X	X	X		
		soil	APLMW-2(TBD)	TBD	Primary					X		X	X	X		
		water	APLMW-2(GW)	NA	Primary					X		X	X	X		
		water	DUPDATE	NA	Duplicate					X		X	X	X		
	APLMW-3	soil	APLMW-3(4.0)	4	Primary					X		X	X	X		
		soil	APLMW-3(TBD)	TBD	Primary					X		X	X	X		
		water	APLMW-3(GW)	NA	Primary					X		X	X	X		
IDW water		water	RWDATE	NA	Primary				X		X		X	X	X	Decontamination rinsate and purge water

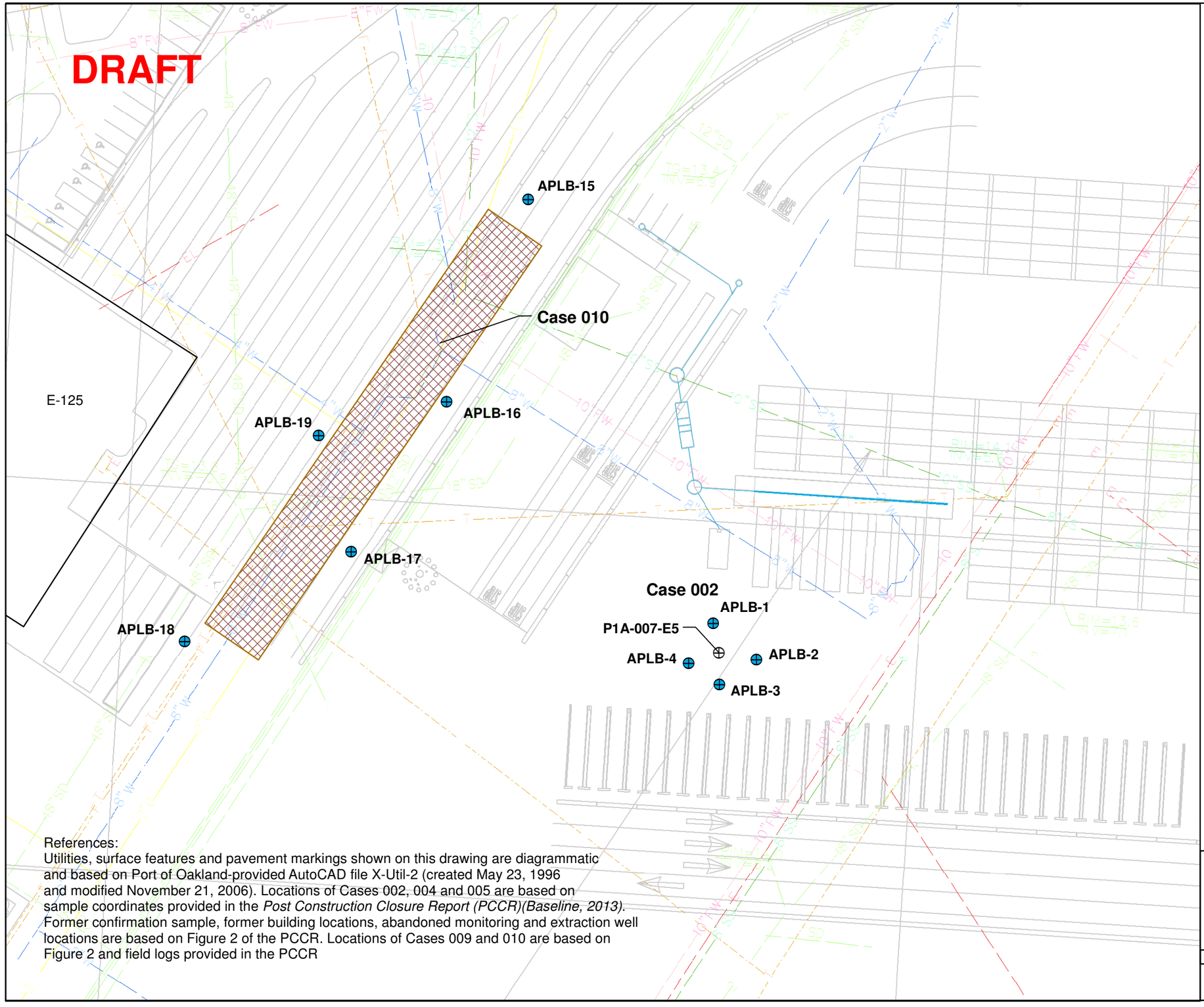
[a] The sample depth is entered in parentheses at the end of the sample number. Date will correspond to the date the sample was collected.

[b] Sample intervals may be adjusted or additional samples collected based on observations during drilling

Abbreviations

BTEX = collective term for benzene, toluene, ethylbenzene, and xylenes
GW = groundwater
IDW = Investigation derived waste
L = liter
mL = milliliter
PAHs = polynuclear aromatic hydrocarbons
SVOCs = semivolatile organic carbons
TBD = to be determined
TPHd = total petroleum hydrocarbons quantified as diesel
TPHg = TPH quantified as gasoline
TPHmo = TPH quantified as motor oil
VOA = volatile organic analysis
VOCs = volatile organic compounds

DRAFT



References:
Utilities, surface features and pavement markings shown on this drawing are diagrammatic and based on Port of Oakland-provided AutoCAD file X-Util-2 (created May 23, 1996 and modified November 21, 2006). Locations of Cases 002, 004 and 005 are based on sample coordinates provided in the *Post Construction Closure Report (PCCR)(Baseline, 2013)*. Former confirmation sample, former building locations, abandoned monitoring and extraction well locations are based on Figure 2 of the PCCR. Locations of Cases 009 and 010 are based on Figure 2 and field logs provided in the PCCR

EXPLANATION

- Proposed Boring Location
- Former Confirmation Sample
- Existing Building Location
- Former Trench Location

Subsurface Utilities

- W — Water Supply
- SS — Sanitary Sewer
- T — Communications
- E — Electrical
- FW — Fire Service
- G — Gas
- SD — Storm Drain

Notes:

The information shown on this figure, including utility locations, is diagrammatic and not to scale. This figure is not intended to locate existing utilities. All utility Locations will be field verified. Screened back lines represent existing surface features and pavement markings at the site as shown by Port of Oakland provided information. Existing surface features, and pavement markings may not match the figure.

N

0 50 100 Feet

PROPOSED BORING
LOCATIONS – CASES 002 AND 010
Post-Construction Work Plan
Former APL Terminal, Port of Oakland
Oakland, California

By: TJH	Date: 04/21/2015	Project No. OD14170810
amec		Figure 3

Tuesday, April 21, 2015 3:01:32 PM
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DRAFT

Case 009
APLB-12
APLB-20
APLB-21
APLB-13
APLB-14

References:
Utilities, surface features and pavement markings shown on this drawing are diagrammatic and based on Port of Oakland-provided AutoCAD file X-Util-2 (created May 23, 1996 and modified November 21, 2006). Locations of Cases 002, 004 and 005 are based on sample coordinates provided in the *Post Construction Closure Report (PCCR)(Baseline, 2013)*. Former confirmation sample, former building locations, abandoned monitoring and extraction well locations are based on Figure 2 of the PCCR. Locations of Cases 009 and 010 are based on Figure 2 and field logs provided in the PCCR

EXPLANATION

- Proposed Boring Location
- Former Trench Location

Subsurface Utilities

- W — Water Supply
- SS — Sanitary Sewer
- T — Communications
- E — Electrical
- FW — Fire Service
- G — Gas
- SD — Storm Drain

Notes:

The information shown on this figure, including utility locations, is diagrammatic and not to scale. This figure is not intended to locate existing utilities. All utility Locations will be field verified. Screened back lines represent existing surface features and pavement markings at the site as shown by Port of Oakland provided information. Existing surface features, and pavement markings may not match the figure.

N

0 50 100 Feet

PROPOSED BORING
WELL LOCATIONS – CASE 009
Post-Construction Work Plan
Former APL Terminal, Port of Oakland
Oakland, California

By: TJH	Date: 04/13/2015	Project No. OD14170810
amec		Figure 6

Monday, April 13, 2015 11:57:11 AM
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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 30, 2015

Mr. John Prall
Port of Oakland
530 Water Street
Oakland, CA 94607
(Sent via Email to jprall@portoakland.com)

Subject: Modified Work Plan Approval for Site Cleanup Program Case No. RO0000470 and GeoTracker Global ID T0600101969, Port of Oakland/ APL/ Berths 60-63, 1395 Middle Harbor Road, Oakland, CA 94612

Dear Mr. Prall:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the subject fuel leak case including the document entitled, *Post-Construction Work Plan* (Work Plan), dated November 7, 2014, and prepared by Amec Foster Wheeler Environment & Infrastructure, Inc. (AMEC) for the subject site.

The Work Plan proposes to investigate five areas of potential environmental concern- designated Case 002, Case 004, Case 005, Case 009, and Case 010 identified in previous subsurface investigations- by advancing borings for the collection of soil and grab-groundwater samples. Three groundwater monitoring wells that were destroyed when the Port of Oakland redeveloped Berth 63, are proposed to be replaced. The three replacement wells, designated APLMW-1, APLMW-2, and APLMW-3, will be placed around the former location of underground storage tanks (USTs) EF-6, EF-7, EF-8, and EF-9, located to the east of Building E-221.

The Work Plan consists of the installation of eighteen soil borings in the five case areas. The proposed boring locations have been selected to characterize the vertical and lateral extent of chemicals of concern in soil and groundwater at each of the case areas. As presented in the Work Plan, soil samples will be recovered at depths of approximately 2 and 5 feet below the ground surface (bgs), and grab-groundwater samples will be collected from the first water bearing unit encountered.

The proposed scope of work may be implemented provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed.

TECHNICAL COMMENTS

1. **Soil Sampling**:

   In addition to the soil sampling presented in the Work Plan, ACEH requests that soil samples be collected and analyzed at areas of obvious contamination and at significant changes in lithology. If staining, odor, or elevated PID readings are observed, a sufficient

number of soil samples from this interval are requested to be submitted for laboratory analyses to characterize the contamination within this interval. Please ensure that the analytical results define the vertical and horizontal extent of contamination at the site.

In order to evaluate the site against the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP), ACEH requests a soil sample be recovered from each of the borings from the interval of 5- to 10- feet below the ground surface (bgs) and submitted for laboratory analysis.

Case 009 – Three borings, APLB-12 through APLB-14, are proposed with two borings located downgradient, approximately 15 feet south of the of the original Case 009 trench excavation; and one boring advanced approximately 15 feet north of the former trench. Soil and the grab-groundwater sample will be analyzed for total petroleum hydrocarbons (TPH) as diesel (TPHd) and TPH as motor oil (TPHmo) using EPA Test Method 8015M.

ACEH requests that an additional soil boring be advanced to the east and one to the west of the Case 009 trench location in order to define the lateral extents of contamination.

Due to the reported elevated metal concentrations reported in the vicinity of Case 009, ACEH requests the addition of the analysis for CAM 17 metals for soil samples collected in this area.

Case 010 – Four borings, APLB-15 through APLB-18, are proposed with one boring located approximately 15 feet from the southwest end of the former Case 010 trench location; one boring will be located approximately 15 feet from the northeast end of the former Case 010 trench location; and two borings will be drilled approximately 75 feet apart between the eastern edge of the former Case 010 trench location and an adjacent subsurface storm drain line. Soil and the grab-groundwater sample will be analyzed for TPHg, TPHd, and TPHmo using EPA Test Method 8015M, volatile organic compounds (VOCs) by EPA 8260B and semi-volatile organic compounds (SVOCs) by EPA 8270SIM.

ACEH requests that an additional soil boring be advanced to the west of the Case 010 trench location in order to define the lateral extents of contamination. Please locate the boring opposite the mid-point between APLB-16 and APLB-17 shown on Figure 3 of the Work Plan.

Building E-221 – The Work Plan proposes the installation of three groundwater monitoring wells, designated APLMW-1 through APLMW-3. No soil samples are proposed for recovery and laboratory analysis.

In order to evaluate conditions at Building E-221 against the LTCP, ACEH requests that soil samples be collected during boring advancement for the installation of the three monitoring wells following the Work Plan protocol and Technical Comment 1 protocol presented above. ACEH requests the soil sample be analyzed for TPHg, TPHd, and TPHmo; BTEX, MTBE, naphthalene, and PAHs.

2. **Groundwater Sampling:**

   Case 009 – Due to the reported elevated metal concentrations reported in the vicinity of Case 009, ACEH requests the addition of the analysis for CAM 17 metals for grab-groundwater samples collected in this area.

   Building E-221 – In order to evaluate conditions at Building E-221 against the LTCP, ACEH requests the monitoring well groundwater samples include the analyses for MTBE and naphthalene.

Technical Report Request

Please upload technical reports to the ACEH ftp site (Attention: Keith Nowell), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **June 14, 2015 – Soil and Groundwater Investigation Report** (file name: RO0000470_SWI_R_yyyy-mm-dd)

Thank you for your cooperation. ACEH looks forward to working with you and your consultants to advance the case toward closure. Should you have any questions regarding this correspondence or your case, please call me at (510) 567-6764 or send an electronic mail message at keith.nowell@acgov.org.

Respectfully,

Keith Nowell

Digitally signed by Keith Nowell
DN: cn=Keith Nowell, o=Alameda County, ou=Department of Environmental Health, email=keith.nowell@acgov.org, c=US
Date: 2015.03.30 15:25:35 -07'00'

Keith Nowell PG, CHG
Hazardous Materials Specialist

Enclosure: Responsible Party(ies) Legal Requirements/Obligations
ACEH Electronic Report Upload (ftp) Instructions

cc: David S. Nanstad, Amec Foster Wheeler Plc, 44 Montgomery Street Suite 2365, San Francisco, CA 94104 (Sent via E-mail to: *david.nanstad@amecfw.com*)

Dilan Roe, ACEH (*Sent via E-mail to: dilan.roe@acgov.org*)
Keith Nowell, ACEH (*Sent via E-mail to: keith.nowell@acgov.org*)
GeoTracker
File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.