UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
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OFFICE OF ENVIRONMENTAL CLEANUP
EMERGENCY MANAGEMENT PROGRAM

Site Specific Sampling Plan Alteration Form

Project Name: River Street Warehouse Fire Site ID: 10QD

Author: Rachel Locke Company: E&E Date Completed: 2/21/18

Changes from Final SSSP (include rationale, decision area, matrices, parameters, equipment, personnel, etc.:

Rationale

EPA has been performing a time-critical removal action to remove asbestos-contaminated debris and building materials from the fire-damaged warehouse on the banks of the Willamette River. As the removal of the warehouse and building debris nears completion, EPA is evaluating the newly exposed river bank where the former warehouse was located prior to the placement of rock to armor and prevent erosion from weathering or trespassers. Additional sampling and analyses were performed to evaluate the river bank sediments and other materials. Specific objectives included:

- Because the River Street site is located within the boundary of the Portland Harbor Superfund Site, samples from the newly exposed river bank were collected and analyzed for that site's contaminants of concern.
- A sample was collected from a stockpile of waste sediment to allow for off-site disposal profiling.
- A sample was collected from a gravel material that will be used to stabilize the river bank, to ensure that new contaminants are not brought on site.

Action Levels

Samples were collected from the following media:

- Sediment from the newly exposed river bank;
- Waste sediment from the inside of the hollow trestle pylons, which was stockpiled for off-site disposal after the trestles were removed from the bank; and
- Gravel from an off-site quarry brought to the site to armor the river bank.

Three different sets of analytes were requested for each sample.

Samples collected from the newly exposed river bank were analyzed for the sediment contaminants of concern for the Portland Harbors Superfund Site. The results will be compared to the Portland Harbor Record of Decision (ROD) sediment cleanup levels (see ROD Table 17 in Attachment 1).

The sample collected from the waste pile were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) for disposal profiling.

The sample collected from the gravel cover/fill material from an off-site quarry will be analyzed for polychlorinated biphenyls (PCBs), pesticides, VOCs, and SVOCs to ensure the suitability of the gravel as a cover material.

Sampling Area

Sediment sampling will be limited to areas of the exposed river bank within the footprint of the former warehouse location that are accessible and safe to sample. Composite samples will also be collected from the waste the waste sediment stockpile and the off-site gravel fill stockpile. These areas are indicated on Figure 1.

Sampling and Analysis

Portland Harbor Superfund Site Preliminary Sample (metals, mercury, TPH Diesel, Organotins, pesticides, PCBs, SVOCS (Bis(2-ethylhexyl)phthalate and hexachlorobenzene), and PAHs.)

1. Sampling Pattern: Representative composite from four aliquots along the surface (0 to 12 inches) of the newly exposed river bank. Three aliquots were taken from north of Trestle 2 and one aliquot south of Trestle 1.
2. Number of Samples: Two composite samples (includes 1 duplicate).
3. Sample Type: Composite.
4. Matrix: Sediments.
5. Sample containers: 2 x 8-oz sample jars per sample.
6. Analyses: Pesticides (Method 8081B), PCBs (Method 8082A), SVOCs (Bis(2-ethylhexyl)phthalate and hexachlorobenzene; Method 8270D), PAHs (Method 8270-SIM); Metals (arsenic, cadmium, copper, lead, and zinc; Method 6020); Mercury (Method 7471A); Northwest Total Petroleum Hydrocarbons-Diesel Range (NWTPH-Dx); and Organotins.
7. Laboratory: TestAmerica Laboratory, Tacoma, WA.

Waste Stockpile Sampling (TCLP VOCs and SVOCs)

8. Sampling Pattern: Representative composite of waste sediment contained within the stockpile.
9. Number of Samples: One composite sample.
10. Sample Type: Composite.
11. Matrix: Sediment.
12. Sample containers: 2 x 8-oz sample.
13. Analyses: TCLP SVOCs and VOCs
14. Laboratory: TestAmerica Laboratory, Tacoma, WA.

Gravel Sampling (PCBs, pesticides, SVOCs, and VOCs)

1. Sampling Pattern: Representative composite of sediment contained within the stockpile.
2. Number of Samples: One composite sample.
3. Sample Type: Composite
4. Matrix: Gravel and sediments.
5. Sample Container: 2 x 8-oz sample jars, and 2 core-in-one containers per sample.
6. Analyses: Pesticides (Method 8081), PCBs (Method 8082), VOCs (Method 8260), and SVOCs (Method 8270).
7. Laboratory: TestAmerica Laboratory, Tacoma, WA.

Approvals of SSSP Alteration Form		
Name	**Title**	**Signature**
Randy Nattis	On-Scene Coordinator (OSC)	RANDY NATTIS Digitally signed by RANDY NATTIS Date: 2018.03.07 11:36:56 -08'00'
Kathy Parker	Emergency Management Program (EMP) Quality Assurance Coordinator (QAC) or alternate	Kathy Parker Digitally signed by Kathy Parker Date: 2018.03.07 12:10:29 -08'00'

ROD Table 17

	Surface Water (1)			Groundwater (2)			River Bank Soil/Sediment (3)			Fish Tissue (4)		
Contaminant	**Unit**	**Conc.**	**Basis**	**Unit**	**Conc.**	**Basis**	**Unit**	**Conc.**	**Basis**	**Unit**	**Conc.**	**Basis**
Aldrin	µg/L	0.00000077	A				µg/kg	2	R	µg/kg	0.06	R
Arsenic	µg/L	0.018	A	µg/L	0.018	A	mg/kg	3	B	mg/kg	0.001	R
Benzene				µg/L	0.44	A						
BEHP	µg/L	0.2	A				µg/kg	135	R	µg/kg	72	R
Cadmium				µg/L	0.091	A/R(5)	mg/kg	0.51	R			
Chlordanes	µg/L	0.000081	A				µg/kg	1.4	R	µg/kg	3	R
Chlorobenzene				µg/L	64	R						
Chromium	µg/L	100	A	µg/L	11	A						
Copper	µg/L	2.74	A	µg/L	2.74	A/R	mg/kg	359	R			
Cyanide				µg/L	4	A						
DDx	µg/L	0.01	R	µg/L	0.001	A	µg/kg	6.1	R	µg/kg	3	R
DDD	µg/L	0.000031	A	µg/L	0.000031	A	µg/kg	114	R			
DDE	µg/L	0.000018	A	µg/L	0.000018	A	µg/kg	226	R			
DDT	µg/L	0.000022	A	µg/L	0.000022	A	µg/kg	246	R			
1,1-Dichloroethene				µg/L	7	A						
cis-1,2-Dichloroethene				µg/L	9.9	A						
Dieldrin							µg/kg	0.07	R	µg/kg	0.06	R
2,4-Dichlorophenoxyacetic acid				µg/L	70	A						
Ethylbenzene	µg/L	7.3	R	µg/L	7.3	R						
Hexachlorobenzene	µg/L	0.000029	A				µg/kg			µg/kg	0.6	R
Lindane							µg/kg	5	R			
Lead				µg/L	0.54	A/R	mg/kg	196	R			
Manganese				µg/L	430	R						
MCPP	µg/L	16	R									
Mercury							mg/kg	0.085	R	mg/kg	0.031	A
Pentachlorophenol	µg/L	0.03	A	µg/L	0.03	A				µg/kg	2.5	R
Perchlorate				µg/L	15	A						
PBDEs										µg/kg	26	R
PCBs	µg/L	0.0000064	A	µg/L	0.014	A/R	µg/kg	9	B	µg/kg	0.25 (6)	R
PAHs							µg/kg	23000				
cPAHs (BaP eq)	µg/L	0.00012	A	µg/L	0.00012	A	µg/kg	12 (7)	B	µg/kg	7.1	R
Acenaphthene				µg/L	23	R						
Acenaphthylene												
Anthracene				µg/L	0.73	R						
Benzo(a)anthracene	µg/L	0.0012	A	µg/L	0.0012	A						
Benzo(a)pyrene	µg/L	0.00012	A	µg/L	0.00012	A						
Benzo(b)fluoranthene	µg/L	0.0012	A	µg/L	0.0012	A						
Benzo(g,h,i)perylene												
Benzo(k)fluoranthene	µg/L	0.0013	A	µg/L	0.0013	A						
Chrysene	µg/L	0.0013	A	µg/L	0.0013	A						

Dibenz(a,h)anthracene	µg/L	0.00012	A	µg/L	0.00012	A						
Fluoranthene												
Fluorene												
Indeno(1,2,3-c,d)pyrene	µg/L	0.0012	A	µg/L	0.0012	A						
2-Methylnaphthalene												
Naphthalene	µg/L	12	R									
Phenanthrene												
Pyrene												
Dioxins/Furans (2,3,7,8-TCDD eq)	µg/L	0.0000000005	A									
1,2,3,4,7,8-HxCDF							µg/kg	0.0004	B	µg/kg	0.00008	R
1,2,3,7,8-PeCDD							µg/kg	0.0002	B	µg/kg	0.00008	R
2,3,4,7,8-PeCDF							µg/kg	0.0003	B	µg/kg	0.00003	R
2,3,7,8-TCDF							µg/kg	0.00040658	R	µg/kg	0.00008	R
2,3,7,8-TCDD							µg/kg	0.0002	B	µg/kg	0.00008	R
Tetrachloroethene				µg/L	0.24	A						
Toluene				µg/L	9.8	R						
TPH-Diesel							mg/kg	91	R			
TPH-Diesel (C10-C12 Aliphatic)				µg/L	2.6	R						
Tributyltin	µg/L	0.063	A				µg/kg	3080	R			
Trichloroethene				µg/L	0.6	A						
2,4,5-Trichlorophenol				µg/L	50	A						
Vanadium				µg/L	20	R						
Vinyl Chloride				µg/L	0.022	A						
Xylenes				µg/L	13	R						
Zinc	µg/L	36.5	R	µg/L	36.5	R	mg/kg	459	R			