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TRANSMITTAL LETTER FOR THE STATE OF NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION REQUIRED MODIFICATIONS TO SAMPLING PLAN FOR
UNDERGROUND WASTE OIL TANK WEST OF BUILDING C-14 NWS EARLE NJ
7/19/1990
STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

00000105

Let's protect our earth



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
CN 028
Trenton, N.J. 08625-0028
(609) 633-1408
Fax # (609) 633-1454

JUL 19 1990

E.P. Nicholson
Captain, U.S. Navy
Commanding Officer
Department of the Navy
Naval Weapons Station Earle
Colts Neck, New Jersey 07722

RE: Amended Closure Plan, Notice of Deficiency Waste Oil Storage Tank, West of Building C14, Naval Weapons Station Earle, Colts Neck, Monmouth County, EPA ID No. NJ 0170 022 172.

Dear Mr. Nicholson:

The Division of Hazardous Waste Management, Bureau of Hazardous Waste Engineering (BHWE) has completed its review of the amended "Sampling Plan for Underground Waste Oil Storage Tank West of Building C14" dated September 6, 1989. The BHWE has found the following deficiencies that will require modification and resubmittal of the plan:

1. Section 4.1 Site Map

The site map must provide the distance from a fixed point to either the sampling locations or original location of the underground tank in question.

2. Section 4.3 Sampling Location, Frequency and Analytical Parameters

Carbon steel construction of the split spoon, in lieu of stainless steel, is acceptable for this plan.

Upon review of the Field Log documenting the activities on May 23, 1988, the average depth of 9.7' for all soil sampling stated in the revised plan must be changed to: 9'2" for sample #CN-1; 11'7" for sample #CN-2; 10'5" for sample #CN-3; and 8'7" for sample #CN-4. Proceeding in this manner will place the sampling locations 12" below each original depth and presumably in relatively undisturbed soil, thereby, reducing the potential sampling of backfill or sidewall cave-in material ensuing from the first round of sampling.

Petroleum hydrocarbon (PHC) data revealed a concentration of 950 ppm for sample CN-2 (ID 633654) which is in excess of the NJDEP action level guideline of 100 ppm. Therefore, for this sample, delineation at various depths must be conducted.



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3. Table I Sample Analyses, Method and Preservation

The procedures currently listed in Table I must be expanded to include the Laboratory Procedures provided in RCRA Attachment III (attached).

4. Section 4.4.1 Soil Sampling

In addition to the auger flights, the split spoon sampling rig must be steam cleaned prior to use on site. Augers must also be steam cleaned between each boring.

5. Section 4.4.1.f. Soil Sampling

The vials for volatile organics must be filled first.

6. Section 4.4.2 Decontamination Procedures

Sampling equipment that will be laboratory cleaned must be wrapped in autoclaved aluminum foil.

The drill rig and augers must be steam cleaned.

7. Section 4.4.3.c Quality Assurance/Quality Control, Trip Blanks

The clock governing holding times for trip blanks begins at the laboratory's verified time of sample receipt (VTSR), as documented on the laboratory's chain of custody. Holding times for individual parameters are dictated by the analytical methods.

Field and trip blank samples must arrive on-site within one (1) day of their preparation in the laboratory, may be held on-site for no longer than two (2) calendar days, and must arrive back in the lab within one (1) day of shipment from the field (four (4) days total). Blanks and all samples must be maintained at 4°C while on-site and during shipment.

8. Section 5.0 Health and Safety Plan

The plan should indicate what air monitoring instrumentation will be used on-site during sampling.

9. The BHWE must be notified in writing at least fourteen (14) days prior to initiation of closure sampling activities so that a representative from the Department can be present to audit the soil sampling episode.

Please submit two (2) copies of the revised plan within thirty (30) days from the date of this letter.

E.P. Nicholson, Captain
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If you have any questions, please call John Scott of my staff at (609) 292-9880.

Very truly yours,



Thomas Sherman, Chief
Bureau of Hazardous Waste Engineering

EP58/cfd
Attachment

cc: Barry Tornick, USEPA (without attachment)
Vincent Krisak, BCE (without attachment)
Densie K. Rude, BEMQA (without attachment)

DOCUMENT: NAVAL17
FOLDER: DBMTCB

RCRA ATTACHMENT III

Laboratory Procedures

The laboratory SOP must be submitted with the proposed Sampling Plan unless the SOP is already on file with the Office of Quality Assurance.

Parameters for analysis must be from the Target Compound List (TCL) plus thirty and the Target Analyte List (TAL). Any facility specific compounds not included on the TCL or TAL should have the analytical SOP included with the plan.

The laboratory conducting the soil analysis must utilize CLP SOW for Organics and Inorganics Analysis or SW-846, 3rd edition methodologies. SW-846 methods to be utilized include: Method 8240 for volatiles; Method 8270 for semivolatiles; methods for other parameters should be specified. For soil analysis of TPHC, EPA method 418.1 as modified by NJDEP should be utilized. Minimum detection limits for both CLP and SW-846 analytical protocols are provided as pages C-1 through C-6.

Data results must be reported according to the Regulatory Deliverable format (Appendix 1) that is to be utilized for analyses conducted by SW-846 3rd Edition. The NJDEP-CLP Format (Appendix 3) is to be utilized for analyses of samples analyzed by Contract Laboratory Program Protocol. The 3rd edition SW-846 is utilizing CLP type deliverables for the analysis of samples by certain methods. The use of NJDEP-CLP format for these methods is acceptable. (Examples of Appendix 1 and Appendix 3 may be obtained from BHWE.)

The submittal of Inorganics data must include all raw data and the QA/QC data required for the method. Submittal of only the results and the summary sheet information is not acceptable. Information reported by the laboratory for TPHC analysis should include: calibration data, method blank results, samples results, date of analysis, and IR spectra for calibration standards, all blanks, all samples.

To ensure that the proper level of extraction and analysis is conducted, the laboratories should screen all samples prior to analyses. The screening results must be maintained by the laboratory until the analytical results are approved by NJDEP. NJDEP may require the submittal of the screening analytical results if the laboratory utilized the high level extraction procedure or analyses and reports all analytical results as "Non Detect". If NJDEP determines that the use of the high level extraction and analyses was inappropriate, resampling will be required and analysis conducted utilizing the low level procedures.

The use of GPC procedure for semivolatile analysis is not permitted.

The use of non-aqueous method blanks (except for dioxin in soils) is unacceptable to NJDEP. A volume of deionized/distilled laboratory water should be utilized instead as per requirements of the USEPA SOW
Organics Analysis.

INORGANIC TARGET ANALYTE LIST (TAL)

Analyte	Contract Required Detection Limit (1,2) (ug/L)
Aluminum	200
Antimony	60
Arsenic	10
Barium	200
Beryllium	5
Cadmium	5
Calcium	5000
Chromium	10
Cobalt	50
Copper	25
Iron	100
Lead	5
Magnesium	5000
Manganese	15
Mercury	0.2
Nickel	40
Potassium	5000
Selenium	5
Silver	10
Sodium	5000
Thallium	10
Vanadium	50
Zinc	20
Cyanide	10

- (1) Subject to the restrictions specified in the first page of Part G, Section IV of Exhibit D (Alternate Methods - Catastrophic Failure) any analytical method specified in SOW Exhibit D may be utilized as long as the documented instrument or method detection limits meet the Contract Required Detection Limit (CRDL) requirements. Higher detection limits may only be used in the following circumstance:

If the sample concentration exceeds five times the detection limit of the instrument or method in use, the value may be reported even though the instrument or method detection limit may not equal the Contract Required Detection Limit. This is illustrated in the example below:

For lead:

Method in use = ICP

Instrument Detection Limit (IDL) = 40

Sample concentration = 220

Contract Required Detection Limit (CRDL) = 5

Target Compound List (TCL) and
Contract Required Quantitation Limits (CROL)*

Volatiles	CAS Number	Quantitation Limits**	
		Water ug/L	Low Soil/Sediment ^a ug/Kg
1. Chloromethane	74-87-3	10	10
2. Bromomethane	74-83-9	10	10
3. Vinyl Chloride	75-01-4	10	10
4. Chloroethane	75-00-3	10	10
5. Methylene Chloride	75-09-2	5	5
6. Acetone	67-64-1	10	10
7. Carbon Disulfide	75-15-0	5	5
8. 1,1-Dichloroethene	75-35-4	5	5
9. 1,1-Dichloroethane	75-34-3	5	5
10. 1,2-Dichloroethene (total)	540-59-0	5	5
11. Chloroform	67-66-3	5	5
12. 1,2-Dichloroethane	107-06-2	5	5
13. 2-Butanone	78-93-3	10	10
14. 1,1,1-Trichloroethane	71-55-6	5	5
15. Carbon Tetrachloride	56-23-5	5	5
16. Vinyl Acetate	108-05-4	10	10
17. Bromodichloromethane	75-27-4	5	5
18. 1,2-Dichloropropane	78-87-5	5	5
19. cis-1,3-Dichloropropene	10061-01-5	5	5
20. Trichloroethene	79-01-6	5	5
21. Dibromochloromethane	124-48-1	5	5
22. 1,1,2-Trichloroethane	79-00-5	5	5
23. Benzene	71-43-2	5	5
24. trans-1,3-Dichloropropene	10061-02-6	5	5
25. Bromoform	75-25-2	5	5
26. 4-Methyl-2-pentanone	108-10-1	10	10
27. 2-Hexanone	591-78-6	10	10
28. Tetrachloroethene	127-18-4	5	5
29. Toluene	108-88-3	5	5
30. 1,1,2,2-Tetrachloroethane	79-34-5	5	5

(continued)

Volatiles	CAS Number	Quantitation Limits**	
		Water ug/L	Low Soil/Sediment ^a ug/Kg
31. Chlorobenzene	108-90-7	5	5
32. Ethyl Benzene	100-41-4	5	5
33. Styrene	100-42-5	5	5
34. Xylenes (Total)	1330-20-7	5	5

^a Medium Soil/Sediment Contract Required Quantitation Limits (CRQL) for Volatile TCL Compounds are 125 times the individual Low Soil/Sediment CRQL.

* Specific quantitation limits are highly matrix dependent. The quantitation limits listed herein are provided for guidance and may not always be achievable.

** Quantitation limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight basis as required by the contract, will be higher.

Target Compound List (TCL) and
Contract Required Quantitation Limits (CROL)*

Semivolatiles	CAS Number	Quantitation Limits**	
		Water ug/L	Low Soil/Sediment ^b ug/Kg
35. Phenol	108-95-2	10	330
36. bis(2-Chloroethyl) ether	111-44-4	10	330
37. 2-Chlorophenol	95-57-8	10	330
38. 1,3-Dichlorobenzene	541-73-1	10	330
39. 1,4-Dichlorobenzene	106-46-7	10	330
40. Benzyl alcohol	100-51-6	10	330
41. 1,2-Dichlorobenzene	95-50-1	10	330
42. 2-Methylphenol	95-48-7	10	330
43. bis(2-Chloroisopropyl) ether	108-60-1	10	330
44. 4-Methylphenol	106-44-5	10	330
45. N-Nitroso-di-n- dipropylamine	621-64-7	10	330
46. Hexachloroethane	67-72-1	10	330
47. Nitrobenzene	98-95-3	10	330
48. Isophorone	78-59-1	10	330
49. 2-Nitrophenol	88-75-5	10	330
50. 2,4-Dimethylphenol	105-67-9	10	330
51. Benzoic acid	65-85-0	50	1600
52. bis(2-Chloroethoxy) methane	111-91-1	10	330
53. 2,4-Dichlorophenol	120-83-2	10	330
54. 1,2,4-Trichlorobenzene	120-82-1	10	330
55. Naphthalene	91-20-3	10	330
56. 4-Chloroaniline	106-47-8	10	330
57. Hexachlorobutadiene	87-68-3	10	330
58. 4-Chloro-3-methylphenol (para-chloro-meta-cresol)	59-50-7	10	330
59. 2-Methylnaphthalene	91-57-6	10	330
60. Hexachlorocyclopentadiene	77-47-4	10	330
61. 2,4,6-Trichlorophenol	88-06-2	10	330
62. 2,4,5-Trichlorophenol	95-95-4	50	1600
63. 2-Chloronaphthalene	91-58-7	10	330
64. 2-Nitroaniline	88-74-4	50	1600
65. Dimethylphthalate	131-11-3	10	330
66. Acenaphthylene	208-96-8	10	330
67. 2,6-Dinitrotoluene	606-20-2	10	330
68. 3-Nitroaniline	99-09-2	50	1600
69. Acenaphthene	83-32-9	10	330

(continued)

Semivolatiles	CAS Number	Quantitation Limits**	
		Water ug/L	Low Soil/Sediment ^b ug/Kg
70. 2,4-Dinitrophenol	51-28-5	50	1600
71. 4-Nitrophenol	100-02-7	50	1600
72. Dibenzofuran	132-64-9	10	330
73. 2,4-Dinitrotoluene	121-14-2	10	330
74. Diethylphthalate	84-66-2	10	330
75. 4-Chlorophenyl-phenyl ether	7005-72-3	10	330
76. Fluorene	86-73-7	10	330
77. 4-Nitroaniline	100-01-6	50	1600
78. 4,6-Dinitro-2-methylphenol	534-52-1	50	1600
79. N-nitrosodiphenylamine	86-30-6	10	330
80. 4-Bromophenyl-phenylether	101-55-3	10	330
81. Hexachlorobenzene	118-74-1	10	330
82. Pentachlorophenol	87-86-5	50	1600
83. Phenanthrene	85-01-8	10	330
84. Anthracene	120-12-7	10	330
85. Di-n-butylphthalate	84-74-2	10	330
86. Fluoranthene	206-44-0	10	330
87. Pyrene	129-00-0	10	330
88. Butylbenzylphthalate	85-68-7	10	330
89. 3,3'-Dichlorobenzidine	91-94-1	20	660
90. Benzo(a)anthracene	56-55-3	10	330
91. Chrysene	218-01-9	10	330
92. bis(2-Ethylhexyl)phthalate	117-81-7	10	330
93. Di-n-octylphthalate	117-84-0	10	330
94. Benzo(b)fluoranthene	205-99-2	10	330
95. Benzo(k)fluoranthene	207-08-9	10	330
96. Benzo(a)pyrene	50-32-8	10	330
97. Indeno(1,2,3-cd)pyrene	193-39-5	10	330
98. Dibenz(a,h)anthracene	53-70-3	10	330
99. Benzo(g,h,i)perylene	191-24-2	10	330

^b Medium Soil/Sediment Contract Required Quantitation Limits (CRQL) for SemiVolatile TCL Compounds are 60 times the individual Low Soil/Sediment CRQL.

* Specific quantitation limits are highly matrix dependent. The quantitation limits listed herein are provided for guidance and may not always be achievable.

** Quantitation limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight basis as required by the contract, will be higher.

Target Compound List (TCL) and
Contract Required Quantitation Limits (CRQL)*

Pesticides/PCBs	CAS Number	Quantitation Limits**	
		Water ug/L	Low Soil/Sediment ^c ug/Kg
100. alpha-BHC	319-84-6	0.05	8.0
101. beta-BHC	319-85-7	0.05	8.0
102. delta-BHC	319-86-8	0.05	8.0
103. gamma-BHC (Lindane)	58-89-9	0.05	8.0
104. Heptachlor	76-44-8	0.05	8.0
105. Aldrin	309-00-2	0.05	8.0
106. Heptachlor epoxide	1024-57-3	0.05	8.0
107. Endosulfan I	959-98-8	0.05	8.0
108. Dieldrin	60-57-1	0.10	16.0
109. 4,4'-DDE	72-55-9	0.10	16.0
110. Endrin	72-20-8	0.10	16.0
111. Endosulfan II	33213-65-9	0.10	16.0
112. 4,4'-DDD	72-54-8	0.10	16.0
113. Endosulfan sulfate	1031-07-8	0.10	16.0
114. 4,4'-DDT	50-29-3	0.10	16.0
115. Methoxychlor	72-43-5	0.5	80.0
116. Endrin ketone	53494-70-5	0.10	16.0
117. alpha-Chlordane	5103-71-9	0.5	80.0
118. gamma-Chlordane	5103-74-2	0.5	80.0
119. Toxaphene	8001-35-2	1.0	160.0
120. Aroclor-1016	12674-11-2	0.5	80.0
121. Aroclor-1221	11104-28-2	0.5	80.0
122. Aroclor-1232	11141-16-5	0.5	80.0
123. Aroclor-1242	53469-21-9	0.5	80.0
124. Aroclor-1248	12672-29-6	0.5	80.0
125. Aroclor-1254	11097-69-1	1.0	160.0
126. Aroclor-1260	11096-82-5	1.0	160.0

^c Medium Soil/Sediment Contract Required Quantitation Limits (CRQL) for Pesticide/PCB TCL compounds are 15 times the individual Low Soil/Sediment CRQL.

* Specific quantitation limits are highly matrix dependent. The quantitation limits listed herein are provided for guidance and may not always be achievable.

** Quantitation limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight basis as required by the contract, will be higher.