

N50092.AR.000277
JEB FORT STORY, VA
5090.3a

LETTER OFFERING COMMENTS ON DRAFT CONFIRMATORY STUDIES REPORT FOR
SITE 2 - LANDFILL 2 ADDENDUM TO FINAL FORT STORY PRELIMINARY ASSESSMENT/
SITE INVESTIGATION REPORT AUGUST 1995 FORT STORY VA

9/11/1995

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

File: 66
6D.2



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Peter W. Schmidt
Director

September 11, 1995

P. O. Box 10009
Richmond, Virginia 23240-0009
(804) 762-4000

Commander
US Army Transportation Center
ATZF-PWE (Musel)
Building 1407, Room 111
Fort Eustis, Virginia 23604-5332

Dear Mr. Musel:

Thank you for providing the Department of Environmental Quality, Office of Federal Facilities Restoration and Superfund, the opportunity to comment on the "Draft Confirmatory Studies Report for Site 2 - Landfill 2, Addendum to the Final Fort Story Preliminary Assessment/Site Investigation Report" August 1995.

Attached are our staffs' comments on the Landfill 2 Report. If you have questions concerning these comments please contact me at (804) 762-4192.

Sincerely,

Durwood H. Willis
Office of Federal
Facilities Restoration
and Superfund

/ko

Attachments

cc: Erica Dameron, DEQ
Larry McBride, DEQ

**Comments on the "Draft Confirmatory Studies
Site 2 - Landfill 2, Addendum to the Final
Fort Story Preliminary Assessment/Site
Investigation Report" August, 1995**

1. Page 2-3 Section 2.1.3 Sediment Sampling Procedures-The depth at which the sediment samples were collected, 1 to 1.5 feet, may not be indicative of contamination concentrations in the surface layers of the sediment. A surface sample may provide data that is more comparable to the National Oceanic and Atmospheric Administration (NOAA) guidelines for contaminant effects rates. If sediment monitoring is performed in the future, some consideration should be given to sampling the sediment surface as well as at the depth noted above.
2. Table 4-2 Page 1 of 3- The detection limit for copper in the surface water and groundwater samples appears to be 25 ug/l. The water quality standard for copper in salt water is 2.9 ug/l. It is not possible to state that the surface water concentration of copper is below the salt water criteria. Future analysis should utilize a technique with lower detection limits.
3. Table 4-2-The level of concern in surface waters for several metals is dependent upon the water hardness which was not provided. In the future, monitoring of surface water should include hardness.
4. Table 4-4, Page 3 of 3-It appears that the concentration of mercury in the sediment may exceed the NOAA levels of concern. If this is accurate the text should be modified accordingly.
5. Page 4-3 Section 4.3.3 Sediment Contamination Assessment-The total fuel hydrocarbon-heavy (TFH-H) values in the sediment samples SD3003 and SD3004 appear to be elevated and exceed the trigger levels provided in the Preliminary Assessment/Site Investigation for Fort Story in January, 1992 (Fort Story PA/SI January, 1992) . Potential sources of TFH-H should be identified and impacts discussed.
6. Tables 4-2 and 4-4-Detailed chemical analysis of the sediment and surface and groundwater has detected numerous Tentatively Identified Compounds from the Volatile and Base Neutral/Acid Extractable compound fractions. Several of the tentatively identified compounds (or group of compounds) are present in several or all of the sediment samples. Some of these compounds may be biogenic while others may be due to site activities. Some discussion of the compounds (or group of compounds) seems appropriate in the situations where the detection is noted in every sample of a medium or where the concentrations are the highest.
7. Table 2-8, Page 2-18 of the Fort Story PA/SI January, 1992 indicates a soil trigger for copper of 14 mg/kg. Comparison

Mr. Dan Musel
Fort Eustis
Page 2

of the soil trigger to the January 1995 sediment data indicates two sediment samples meet or exceed this trigger level (SD3003-14 mg/kg, SD3004-16 mg/kg). Soil boring samples, collected in 1990, near the location of these sediment samples also had concentrations of copper above the trigger levels (Fort Story PA/SI January, 1992 page 2-30).

8. The trigger provided in the Fort Story PA/SI January, 1992 for zinc in soil is 57 mg/kg. This trigger was exceeded in three sediment samples; (SD3002-65 mg/kg, SD3003-380 mg/kg, SD3004-90 mg/kg).
9. The trigger provided in the Fort Story PA/SI January, 1992 for DDT of 0.044 mg/kg was exceeded by the concentrations of DDD in six sediments samples. DDE was detected in two sediment samples at concentrations which exceeded the soils trigger level for DDT.
10. EPA Region III has developed draft sediment screening levels for ecological risks. (A copy of the January, 1995 interim draft "Region III BTAG Screening Levels" is attached.) Arsenic exceeds the Region III screening level in one sample; SD3003-9.9 mg/kg.
11. Lead exceeded the Region III screening level at SD3003-69 mg/kg and SD3004-58 mg/kg. These sediment sample locations are in close proximity to the groundwater well which had elevated levels of lead in the groundwater.
12. The concentration of mercury in three sediment samples SD3001-0.17 mg/kg, SD3003-0.28 mg/kg, SD3004-0.28 mg/kg exceed the EPA Region III screening level.
13. The concentration of zinc in sediment sample SD3003 is 380 mg/kg which exceeds the EPA Region III screening concentration of 150 mg/kg.
14. The concentration of DDD in three sediment samples exceed the EPA Region III screening level; SD3004-0.045 mg/kg, SD3005-0.069 mg/kg, SD3005D-0.032 mg/kg.
15. The concentration of total zinc in MW107, MW108, MW109, and MW109D exceed the Virginia Groundwater Standard of 50 ug/l. Dissolved zinc was not detected at concentrations which exceeded the Virginia groundwater standard.
16. The concentrations of Ammonia-N in groundwater samples MW105 (74 ug/l), MW109 (3000 ug/l) exceeded the Virginia groundwater standard for the coastal plain which is 25 ug/l.

Mr. Dan Musel
Fort Eustis
Page 3

17. The above comments related to levels of contaminants in sediment, groundwater and surface water indicate the need to evaluate these contaminants and media on a fixed interval. The fact that the characteristics of contaminants varied between 1990 and 1995 would suggest that continued evaluation is needed.

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
INORGANICS									
Aluminum			460.0 (a)*	200.0 (a)*					231(1)*
Ammonia	39.0 (a)*	17.0 (c)*		17.0 (c)*					
Antimony		500.0 (p,c)		30.0 (p,c)	480.0				
Arsenic (total)				874.0 (c)	5,000.0			8,200.0	
Ar ⁺³	19.0 (c)	36.0 (c)		190.0 (c)				57.0 (AET)	3(1); 4(1-)
Ar ⁺⁵	13.0 (c)		48.0 (a)						3(1); 3(1-)
Barium				10,000.0 (a)				440,000.0	
Beryllium			100,000.0 (a)	5.3 (c)	20.0				17,000(PI); 900(1); 8(1-)
Boron		12,000.0 (a)	75,000.0 (c)*	53,000.0 (c)	0.5				19(1-); 100(1,PI) 4(PI); 198(1-)
Cadmium		9.3 (c)	1.1 (c)*	0.15 (c)*	2.5 mg/kg			676 (TEL)	10,000(1); 4,900(1-)
Chromium (total)					20.0	7.5		5.0	260,000.0 mg/kg(AET)
Cr ⁺³		10,300.0 (a)		210.0 (c)*					1,000,000(1); 1.0
Cr ⁺⁶		50.0 (c)	2.0 (c)	1.0 (c)					81,000.0 < 81,000.0
Cobalt					100.0*	165.0 mg/m ³ ; 1,500.0 mg/kg			40(1-)
Copper		2.9 (a)		6.5 (a)*		40.0			34,000
Cyanide		1.0 (a)		5.2 (c)					51.20(23.53)(PI)

a - acute, c - chronic, p - proposed, * - value is dependant on hardness and/or pH, F - fish, I - invertebrate, PI - plant, AET - Apparent Effect Threshold, TEL - Threshold Effects Level

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
Fluorides			2,000.0 (a)	2,700.0 (a)					significant bioaccumulation is noted in aquatic species
Iron				320.0 (c)	100,000.0				
Lead	5.1 (c)*			1.0 (c)*	12.5		10.0	46,700	
Manganese	200.0 (c)*	10.0 (c)*					330,000.0		35(F); 300(P)
Mercury		0.025 (c)*		0.012 (c)*			58.0	150.0	23,661(1); 7,000(F)
Nickel		8.3 (c)*		14.77 (c)*	2,500.0			20,900.0	40,000(P)*; 100(F)*
Phosphorus		0.1 (c)		2.4 (a)					2,000(F)
Selenium		3.0 (c)	522.0 (a)	3.0 (c)			260.0		28,870(1); 470(F)
Silver	1.9 (a)	0.0001 (c)	1.9 (a)	0.0001 (c)	0.0098			733 (TEL)	34,000(P); 150(F)
Strontium							120,000.0		
Thallium		20.0 (c)		40.0 (c)	1.0				130(F); 18(1)
Tin							890.0		high bioaccumulation has noted but no value available
Uranium							2,300.0		
Vanadium		< 10.0 mg/kg		< 10.0 mg/kg			58,000.0		
Zinc	86.0 (c)	86.0 (c)	110.0 (c)*	110.0 (h,c)*			4,800.0	150,000.0	50,000(P)*; 100,000(1)*; 2,000(F)

* acute, c - chronic, p - proposed, * - value is dependant on hardness and/or pH, F - fish, I - invertebrate, P - plant, AEF - Apparent Effect Threshold, TEL - Threshold Effects Level

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
CHLORINATED DIOXINS & PCBS									
2,3,7,8-TCDD				< 0.00001 (c)					
Polychlorinated Biphenyls (PCBs)		0.03 (c)	0.1 (a)	0.014 (c)		0.04 ppm		22.7	340,000(1); 270,000
SEMI-VOLATILES									
Benzidine				2,500.0 (a)					
Benzoic Acid								650.0 (AET)	
Benzyl Alcohol								57.0 (AET)	
4-Chloroaniline		29,700.0 (a)							
Dibenzofuran								540.0 (AET)	
1,2-Diphenylhydrazine				270.0 (a)					
2-Hexanone				428,000.0 (a)					
Isophorone		12,900.0 (a)		117,000.0 (a)					
Methyl Ethyl Ketone (MEK)				3,220,000.0 (a)					significant bioaccumulation expected
Methyl Isobutyl Ketone (MIBK)				460,000.0 (a)		100,000.0			5 (estimated)

a - acute; c - chronic; p - proposed; * value is dependant on hardness and/or pH; F - fish; I - invertebrate; PL - plant; AET - Apparent Effect Threshold; TEL - Threshold Effects Level

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
SEMI-VOLATILE - NITROAROMATICS									
2,4-Dinitrotoluene		370.0 (c)		230.0 (c)					
Nitrobenzene		6,680.0 (a)		27,000.0 (a)					
N-Nitrosodiphenylamine		3.3 X 10 ⁶ (a)		5,850.0 (a)				28.0 (AET)	
SEMI-VOLATILE - ORGANOHALIDES									
Aldrin		1.3 (a)		3.0 (a)		100.0			
Bromochloromethane						3.0 X 10 ⁶			7(estimated)
Bromodichloromethane						450.0 mg/kg			1.37
Chlordane		0.004 (c)		0.0043 (a)		< 100.0			
Chloroform				1,240.0		8,000.0			1.4 (F)
2-Chloronaphthalene		7.5 (a)		1,600.0 (a)					
DDD		0.68 (a)		0.6 (a)		< 100.0			47,900(I); 6,210(I); 52,500(I [*])
DDE		14.0 (a)		1,050.0 (a)		< 100.0	2.2		59,000(I); 10,000(PI); 81,000(I [*])
DDT	5,000.0 (a)	0.001 (c)	5,000.0 (a)	0.001 (c)		4.0	0.008 mg/kg		100,000(I [*]); 690,000(I); 21,580(PI)
1,2-Dibromo-3-Chloropropane									11(estimated)
Dieldrin		0.0019 (c)		0.0019 (c)		< 100.0			6,000(I [*])

a - acute; c - chronic; p - proposed; * - value is dependant on hardness and/or pH; F - fish; I - invertebrate; PI - plant; AET - Apparent Effect Threshold; TEL - Threshold Effects Level.

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF*
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
Endosulfan		0.0087 (c)		0.056 (c)					
Endosulfan Alpha-		0.0087 (c)		0.056 (c)					
Endosulfan Beta-		0.0087 (c)		0.056 (c)					
Endrin		0.0023 (c)		0.0023 (c)		< 100.0			1,000(I-)
Endrin Aldehyde									significant bioaccumulation expected
Heptachlor		0.0036 (c)		0.0038 (c)					
Heptachlor Epoxide		0.0036 (c)		0.0038 (c)		< 100.0			66,000(I); 14,400(I-); 1,600(PI)
Hexachlorobenzene		129.0 (c)		3.68 (p,c)			0.38 (AET)		1,800(I); 1,200(I-)
Hexachlorobutadiene		32.0 (a)		9.3 (c)			11.0 (AET)		
Hexachlorocyclohexane		0.34 (a)		100.0 (a)					
Hexachlorocyclopentadiene		7.0 (a)		5.2 (c)					
Hexachloroethane		940.0 (a)		540.0 (c)					
Kepon		7.0 (a)		7.0 (a)					9,750(I-);
Lindane		0.16 (a)		0.08 (c)		< 100.0			183(I); 1,613(I-)
Methoxychlor		0.03 (c)		0.03 (c)		< 100.0			
Mirex		0.001 (c)		0.001 (c)					2,200(PI); 2,580(I-); 71,400(I)
Pentachlorobenzene		129.0 (c)		50.0 (c)		100.0			3,400(I-)

* acute, c - chronic, p - proposed, * - value is dependant on hardness and/or pH, F - fish, I - invertebrate, PI - plant, AET - Apparent Effect Threshold, TEL - Threshold Effects Level

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
1,2,4,5-Tetrachlorobenzene		129.0 (c)		50.0 (c)		100.0			
Toxaphene		0.0002 (c)		0.0002 (c)					
Tribromomethane		1,000.0 (a)				1,147.0 mg/kg			37.4 (F-estimate)
2,4,6-Trichloroaniline		1,000.0 (a)		1,000.0 (a)					
SEMI-VOLATILE - ORGANOPHOSPHATES									
Chlorpyrifos		0.0056 (c)		0.041 (c)					
Malathion		0.1 (c)		0.1 (c)					
Parathion Mixture		0.013 (c)						31.0 (AET)	
SEMI-VOLATILE - PHENOLICS									
2-Chlorophenol				970.0 (a)		100.0			
2,4-Dichlorophenol				365.0 (c)		100.0			
2,6-Dichlorophenol						100.0			
2,4-Dimethylphenol				2,120.0 (a)		100.0		29.0 (AET)	151 (F)
Dinitrophenol		4,850.0 (a)		150.0 (c)		100.0			
2-Methyl Phenol [o-Cresol]						100.0		63.0 (AET)	
4-Methyl Phenol [p-Cresol]						100.0		670.0 (AET)	
4-Nitrophenol		4,850.0 (a)		150.0 (c)		100.0			

a - acute, c - chronic, p - proposed, * - value is dependant on hardness and/or pH, F - fish, I - invertebrate, PL - plant, AET - Apparent Effect Threshold, TEL - Threshold Effects Level

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-LOW, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
Pentachlorophenol		7.9 (c)		13.0 (c)		100.0		360.0 (AET)	
Phenol		5,800.0(a); 100.0		79.0 (a)		100.0			200(P1); 277(I); 1.9(I*)
2,3,4,6-Tetrachlorophenol						100.0			
2,4,5-Trichlorophenol		11.0 (p,c)		63.0 (p,c)		100.0			
2,4,6-Trichlorophenol				970.0 (c)		100.0			
SEMI VOLATILE - PHTHALATES									
Butyl Benzyl Phthalate (BBP)		3.4 (c)		3.0 (c)					663(I*)
Di(2-Ethylhexyl) Phthalate (DEHP)		360.0 (p,c)		30.0 (c)					2,680(I*); 50(I)
Diethyl Phthalate (DEP)		3.4 (c)		3.0 (c)				Range from 5.3 mg/kg (DEP) to 260.0 mg/kg (DBP)	117(I*)
Dimethyl Phthalate (DMP)		3.4 (c)		3.0 (c)					
Dioctyl Phthalate		3.4 (c)		3.0 (c)					
N-Butyl Phthalate (DBP)		3.4 (c)		3.0 (c)					
SEMI VOLATILE - PAHS									
-Low Molecular Weight									
Acenaphthene		710.0 (c)		520.0 (c)		100.0		16.0	
Acenaphthylene		300.0 (a)				100.0		44.0	

* acute; c - chronic; p - proposed; * - value is dependant on hardness and/or pH; F - fish; I - invertebrate; P1 - plant; AET - Apparent Effect Threshold; TEL - Threshold Effects Level

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
Anthracene				0.1 (c)		100.0			16,800(I*); 912(I) short-term expected
Fluorene		300.0 (a)		430.0 (c)		100.0		19.0	
Naphthalene		2,350.0 (a)		100.0 (c)		100.0		160.0	3.0(I*)
Phenanthrene		4.6 (p,c)		6.3 (p,c)		100.0		240.0	
High Molecular Weight									
Benzo (a) Anthracene		8.13 (c)		6.3 (c)		100.0		261.0	134,248(I); 9,200(I*)
Benzo (a) Pyrene		0.21 ng/ml (a)				20,000		430.0	930(I*); 5,258(PI), 132,248(I)
Chrysene		300.0 (a)				100.0		384.0	minimal to moderate bioaccumulation expected in aquatic organisms
Dibenzo (a,h) Anthracene		300.0 (a)				100.0		63.4	
Fluoranthene		16.0 (c)		3,980.0 (a)		100.0		600.0	bioaccumulation expected
Pyrene		300.0 (a)				100.0		665.0	97
Benzo (b) Fluoranthene		300.0 (a)				100.0		3,200.0 (AET)	
Benzo (k) Fluoranthene		300.0 (a)				100.0			
Benzo (g,h,i) Perylene		300.0 (a)				100.0		670.0 (AET)	
Creosote (mixture)				3,510.0 (a)					
Indeno (1,2,3-CD) Pyrene		300.0 (c)				100.0		600.0 (AET)	
2 Methylnaphthalene		300.0 (c)						70.0	

a - acute; c - chronic; p - proposed; * - value is dependant on hardness and/or pH; F - fish; I - invertebrate; PI - plant; AET - Apparent Effect Threshold; TEL - Threshold Effects Level

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
VOLATILE - AROMATIC / HALOGENATED									
Benzene	20,000.0 (c)	700.0 (c)	20,000.0 (c)	5,300.0 (a)			100.0		
Bis (2-Chloroethoxy) Methane		6,400.0(c)		11,000.0 (a)					
Carbon Tetrachloride		50,000.0 (a)		35,200.0 (a)			< 300.0		1.48(F)
Chlorobenzene	341,000.0 (a)	129.0 (c)	6,630.0 (a)	50.0 (c)			100.0		
Chlorodibromomethane		6,400.0 (c)		11,000.0 (a)					
Chloroform				1,240.0 (c)			< 300.0		
1,2-Dibromoethane				18,000.0 (a)					< 1(F)
Dibromomethane		6,400.0 (c)		11,000.0 (a)					
1,2-Dichlorobenzene		129.0 (c)		763.0 (c)			< 100.0	35.0 (AET)	560(F); 4.17(PI)
1,3-Dichlorobenzene				2,300.0					740(F)
1,4-Dichlorobenzene		129.0 (c)		763.0 (c)			< 100.0	110.0 (AET)	720(F)
Dichlorobromomethane		6,400.0 (c)		11,000.0 (a)					
Dichlorodifluoromethane		6,400.0 (c)		11,000.0 (a)					
1,1-Dichloroethane		320,000.0 (a)		160,000.0 (a)			< 300.0		1.2(F)
1,2-Dichloroethane		113,000.0 (a)		218,000.0 (a)			870.0 mg/kg		0.3(F)
1,1-Dichloroethylene	712,000.0 (a)		798,000.0 (a)	74,000.0 (a)					no significant bioaccumulation

a - acute, c - chronic, p - proposed, * - value is dependant on hardness and/or pH, F - fish, I - invertebrate, PI - plant, AET - Apparent Effect Threshold, TEL - Threshold Effects Level

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
1,2-Dichloroethylene cis and trans		224,000.0 (a)		11,600.0 (a)		< 300.0			cis - 15; trans - 22
Dichloropropene		790.0 (a)		244.0 (c)		300.0			7(I ⁻)
1,3-Dinitrobenzene			1,200.0 (a)						
Ethylbenzene		430.0 (a)		32,000.0 (a)		100.0			37.5(I ⁻)
Ethylene Dichloride		113,000.0 (a)		20,000.0 (c)					
Methylene Chloride		6,400.0 (c)		11,000.0 (a)		< 300.0			5(estimated)
Pentachloroethane		281.0 (c)		1,100.0 (c)					
Propylene Dichloride		3,040.0 (c)		5,700.0 (c)		< 300.0			
Styrene						100.0			13.5(I ⁻)
Tetrachloroethane	6,230.0 (a)	9,020.0 (a)	146,000.0 (a)	9,320.0 (a)		< 300.0			1(I ⁻)
Tetrachloroethylene		450.0 (c)		840.0 (c)		< 300.0			49(I ⁻)
Toluene		1,050.0 (a)		3,700.0 (a)		100.0			26(I ⁻)
Trichlorobenzene		129.0 (c)		50.0 (c)		< 100.0		40.0	2,800(I ⁻)
Trichloroethane		31,200.0 (a)		9,400.0 (c)		< 300.0			8.9(I ⁻)
Trichloroethylene		2,000.0 (a)		21,900.0 (c)		< 300.0			39(I ⁻)
Trichlorofluoromethane		6,400.0 (c)		11,000.0 (a)					

a - acute; c - chronic; p - proposed; * - value is dependant on hardness and/or pH; F - fish; I - invertebrate; PL - plant; AET - Apparent Effect Threshold; TEL - Threshold Effects Level

Region III BTAG Screening Levels

(all values in ppb, unless otherwise noted)

Interim Draft Date: 01/19/95

Contaminant	Aquatic				Soil		Sediment <small>data for Effects Range-Low, unless otherwise noted</small>		BCF
	Marine		Fresh		Flora	Fauna	Flora	Fauna	
	Flora	Fauna	Flora	Fauna					
Vinyl Chloride		224,000.0 (a)		11,600.0 (a)		300.0			40(P1); 10(I)
Xylene		13,500.0 (a); 6,000.0		13,000.0 (a); 6,000.0					6(I), 2.2(I)
VOLATILE - MISCELLANEOUS									
Acetone				9,000,000.0 (a)					0.69(I)
Acrolein		55.0 (a)		21.0 (c)					
Acrylonitrile				2,600.0 (c)					
Carbon Disulfide						10.0 mg/cu			