

**HALEY &  
ALDRICH**

**ADDENDUM TO REPORT ON  
AES SPARROWS POINT  
AUGUST 2007 SEDIMENT SAMPLING AND RESULTS  
SPARROWS POINT, MARYLAND**

**by**

**Haley & Aldrich, Inc.  
East Hartford, Connecticut**

**for**

**AES Sparrows Point LNG, LLC & AES Mid-Atlantic Express, LLC  
Lockport, New York**

**File No. 32907-262  
12 October 2007**

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**ADDENDUM TO REPORT ON AES SPARROWS POINT PROJECT  
AUGUST 2007 SEDIMENT SAMPLING AND RESULTS  
SPARROWS POINT, MARYLAND**

Sediment and elutriate samples were analyzed for tributyltin by VIMS Method 338. Tributyltin is not a required analyte by ACOE guidance for dredge material characterization; however, it was analyzed based on community input received relative to sediment quality and industrial practices in the area. Out of 28 sediment sample analyses conducted, tributyltin was detected in six shallow sediment samples at concentrations ranging from 5 to 87 parts per billion with one single data outlier (HA-123) at 1.9 parts per million (results reported in revised Table 2). Tributyltin was also detected in one deep sample (HA-122) at a concentration of 68 parts per billion. Past analyses for tributyltin for the AES Project were performed in 2006, and yielded results that ranged from 1 to 75 parts per billion; thus, with the exception of the single sample that measured 1.9 parts per million, the sediment quality results from these current analyses are consistent with the past sediment sampling for this compound. The single data outlier is from a sample representing shallow sediment in the location of the recently moved floating dry dock, and therefore is consistent with historical use of that area as described during the public comment period and other literature.

Neither an apparent effects threshold nor a clean-up criteria for tributyltin in sediment and/or soil have been established at the Federal level or in the state of Maryland. While no clean-up criteria for tributyltin have been established, water quality criteria were established by the EPA in December 2003 and have been used for evaluation of the elutriate sample results. Specifically, elutriate data collected were generated for twenty-four sets of sediment composites (results reported in revised Table 3). Tributyltin detections in elutriate samples were limited to three elutriate results at concentrations ranging from 4 to 43 parts per billion. The highest detection of 43 parts per billion correlates to the sample with the concentration of 1.9 parts per million detected in the shallow interval at location HA-123. A concentration of 43 parts per billion is slightly above the water quality criterion to protect saltwater aquatic life from acute toxic effects (42 parts per billion) established by EPA in December 2003. The regulatory criterion is implemented as a one-hour average, not to be exceeded more than once every three years on the average. Given one sample exceeded the criterion by one part per billion, AES anticipates that dredging operations will not result in an exceedance of the criterion during dredging due to the limited area in which the exceedance occurred, the proposal by AES to use an environmental bucket and/or other means to contain the re-suspended particles, and the short duration of the dredge activities in the small area where the exceedance occurred.

In summary, when compared against applicable marine water quality criteria, the elutriate data indicate no compounds exceeded comparison criteria; therefore, no adverse impacts to water quality as a result of exposure of the sediment to the water column during dredging would be anticipated based on these results. The one exception was the detection of tributyltin in one sample (HA-123 shallow interval) where the exceedance was 1 part per billion. Because the tributyltin was not detected in the deep elutriate sample interval at this location (14-16 feet), the conclusion in the body of this report remains the same, i.e., removal of the shallow sediments during dredging operations will improve bottom sediment conditions by eliminating the possibility of remobilization.

**REVISED TABLES**

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
AES SPARROWS POINT, BALTIMORE, MD  
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Chemical	Sample ID/Depth																			
	From MSL (ft)		From ToS (ft)																	
	HA-116	HA-116	HA-117	HA-117	HA-118	HA-118	HA-118	HA-119	HA-119	HA-119	HA-120	HA-120	HA-120	HA-121	HA-121	HA-121	HA-122	HA-122	HA-123	HA-123
	Shall	Deep	Shall	Deep	Shall	Inter	Deep	Shall	Deep	Shall	Deep									
<b>Volatile Organics (ug/kg)</b>																				
1,1,1-Trichloroethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,1,2,2-Tetrachloroethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,1,2-Trichloroethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,1,2-Trichlorotrifluoroethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,1-Dichloroethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,1-Dichloroethene	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,2,4-Trichlorobenzene	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,2-Dibromo-3-chloropropane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,2-Dibromoethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,2-Dichlorobenzene	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,2-Dichloroethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,2-Dichloropropane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,3-Dichlorobenzene	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
1,4-Dichlorobenzene	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
2-Butanone (MEK)	<150	<86	<110	<58	<220	<99	<88	<100	<110	<64	<110	<110	<94	<150	<91	<97	<61	<59	<120	<57
2-Hexanone (MBK)	<31	<17	<22	<12	<45	<20	<18	<21	<22	<13	<23	<22	<19	<31	<18	<19	<12	<12	<25	<11
4-Methyl-2-pentanone (MIBK)	<31	<17	<22	<12	<45	<20	<18	<21	<22	<13	<23	<22	<19	<31	<18	<19	<12	<12	<25	<11
Acetone	<150	<100	<170	<58	<1600	<99	<110	<100	<110	<71	<230	<110	<130	<370	<120	<150	<110	<130	<410	<150
Benzene	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Bromodichloromethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Bromoform	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Bromomethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Carbon disulfide	<31	<17	<22	<12	<45	<20	<18	<21	<22	<13	<23	<22	<19	<31	<18	<19	<12	<12	<25	<11
Carbon tetrachloride	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Chlorobenzene	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Chloroethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Chloroform	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Chloromethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
cis-1,2-Dichloroethene	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
cis-1,3-Dichloropropene	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Cyclohexane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Dibromochloromethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9	<10	<6	<6	<12	<6
Dichlorodifluoromethane	<15	<9	<11	<6	<22	<10	<9	<10	<11	<6	<11	<11	<9	<15	<9					

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
**AES SPARROWS POINT, BALTIMORE, MD**  
**PAGE 2 OF 20**

Chemical	Sample ID/Depth																				
	From MSL (ft)	HA-116	HA-116	HA-117	HA-117	HA-118	HA-118	HA-118	HA-119	HA-119	HA-119	HA-120	HA-120	HA-120	HA-121	HA-121	HA-121	HA-122	HA-122	HA-123	HA-123
	From ToS (ft)	0.0-2.0	10.0-12.0	0.0-2.0	8.0-10.0	0.0-2.0	10.0-12.0	22.0-24.0	0.0-2.0	6.0-8.0	14.0-16.0	0.0-2.0	8.0-10.0	15.0-17.0	0.0-2.0	14.0-16.0	26.0-27.0	0.0-2.0	8.0-10.0	0.0-2.0	14.0-16.0
		Shall	Deep	Shall	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Deep	Shall	Deep
<b>Semivolatile Organics (ug/kg)</b>																					
1,1-Biphenyl	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2,4,5-Trichlorophenol	<810	<490	<530	<310	<1000	<540	<500	<530	<350	<660	<580	<550	<800	<570	<540	<400	<410	<1100	<420		
2,4,6-Trichlorophenol	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2,4-Dichlorophenol	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2,4-Dimethylphenol	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2,4-Dinitrophenol	<810	<490	<530	<310	<1000	<540	<500	<530	<350	<660	<580	<550	<800	<570	<540	<400	<410	<1100	<420		
2,4-Dinitrotoluene	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2,6-Dinitrotoluene	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2-Chloronaphthalene	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2-Chlorophenol	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2-Methylnaphthalene	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2-Methylphenol	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
2-Nitroaniline	<810	<490	<530	<310	<1000	<540	<500	<530	<350	<660	<580	<550	<800	<570	<540	<400	<410	<1100	<420		
2-Nitrophenol	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
3,3-Dichlorobenzidine	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
3-Nitroaniline	<810	<490	<530	<310	<1000	<540	<500	<530	<350	<660	<580	<550	<800	<570	<540	<400	<410	<1100	<420		
4,6-Dinitro-2-methylphenol	<750	<450	<490	<290	<930	<500	<460	<480	<490	<320	<610	<530	<500	<730	<520	<490	<360	<380	<1000	<390	
4-Bromophenyl phenyl ether	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
4-Chloro-3-methylphenol	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
4-Chloroaniline	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
4-Chlorophenyl phenyl ether	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
4-Methylphenol	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
4-Nitroaniline	<810	<490	<530	<310	<1000	<540	<500	<530	<350	<660	<580	<550	<800	<570	<540	<400	<410	<1100	<420		
4-Nitrophenol	<810	<490	<530	<310	<1000	<540	<500	<530	<350	<660	<580	<550	<800	<570	<540	<400	<410	<1100	<420		
Acenaphthene	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
Acenaphthylene	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
Acetophenone	<320	<200	<210	<120	<400	<220	<200	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170		
Anthracene	<320	<200	<210	<120	<400	<220	<200	<210	<140	380	<230	<220	330	<230	<210	<					

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	Sample ID/Depth																				
	From MSL (ft)	HA-116	HA-116	HA-117	HA-117	HA-118	HA-118	HA-118	HA-119	HA-119	HA-119	HA-120	HA-120	HA-120	HA-121	HA-121	HA-121	HA-122	HA-122	HA-123	HA-123
	From ToS (ft)	0.0-2.0	10.0-12.0	0.0-2.0	8.0-10.0	0.0-2.0	10.0-12.0	22.0-24.0	0.0-2.0	6.0-8.0	14.0-16.0	0.0-2.0	8.0-10.0	15.0-17.0	0.0-2.0	14.0-16.0	26.0-27.0	0.0-2.0	8.0-10.0	0.0-2.0	14.0-16.0
		Shall	Deep	Shall	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Deep	Shall	Deep
Indeno[1,2,3-cd]pyrene		<320	<200	<210	<120	<400	<220	<200	<210	<210	<140	1,200	<230	<220	<320	<230	<210	<160	<160	<440	<170
Isophorone		<320	<200	<210	<120	<400	<220	<200	<210	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170
Naphthalene		<320	<200	390	<120	7,900	<220	<200	<210	<210	<140	3,000	<230	<220	2,200	<230	<210	<160	<160	850	<170
Nitrobenzene		<320	<200	<210	<120	<400	<220	<200	<210	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170
N-Nitroso-di-n-propylamine		<320	<200	<210	<120	<400	<220	<200	<210	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170
N-Nitrosodiphenylamine		<320	<200	<210	<120	<400	<220	<200	<210	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170
Pentachlorophenol		<810	<490	<530	<310	<1000	<540	<500	<530	<350	<660	<580	<550	<800	<570	<540	<400	<410	<1100	<420	
Phenanthrene		<320	<200	<210	<120	<400	<220	<200	<210	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170
Phenol		<320	<200	<210	<120	<400	<220	<200	<210	<210	<140	<270	<230	<220	<320	<230	<210	<160	<160	<440	<170
Pyrene		<320	<200	<210	<120	2,100	<220	<200	<210	<210	<140	3,100	<230	<220	1,300	<230	<210	<160	<160	1,100	<170
<b>Pesticides (ug/kg)</b>																					
4,4-DDD		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
4,4-DDE		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
4,4-DDT		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
a-BHC		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
a-Chlordane		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Aldrin		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
b-BHC		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
d-BHC		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Dieldrin		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Endosulfan I		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Endosulfan II		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Endosulfan Sulfate		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Endrin		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Endrin Aldehyde		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Endrin Ketone		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
g-BHC (Lindane)		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
g-Chlordane		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Heptachlor		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30	<24	<23	<18	<18	<33	<18
Heptachlor Epoxide		<25	<20	<20	<13	<32	<21	<20	<23	<24	<15	<25	<26	<23	<30</						

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	From MSL (ft) From ToS (ft)	Sample ID/Depth																			
		HA-116	HA-116	HA-117	HA-117	HA-118	HA-118	HA-118	HA-119	HA-119	HA-119	HA-120	HA-120	HA-120	HA-121	HA-121	HA-121	HA-122	HA-122	HA-123	HA-123
		0.0-2.0	10.0-12.0	0.0-2.0	8.0-10.0	0.0-2.0	10.0-12.0	22.0-24.0	0.0-2.0	6.0-8.0	14.0-16.0	0.0-2.0	8.0-10.0	15.0-17.0	0.0-2.0	14.0-16.0	26.0-27.0	0.0-2.0	8.0-10.0	0.0-2.0	14.0-16.0
		Shall	Deep	Shall	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Deep	Shall	Deep
179-HpCB		NA	ND	NA	0.797	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	35.2	NA	2.43
180,193-HpCB		NA	1.31	NA	3	NA	NA	ND	NA	NA	2.39	NA	NA	3.23	NA	NA	2.45	NA	106	NA	8.28
187-HpCB		NA	1.49	NA	2.26	NA	NA	ND	NA	NA	2.04	NA	NA	2.58	NA	NA	1.99	NA	100	NA	6.21
195-OcCB		NA	ND	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	7.94	NA	ND
206-NoCB		NA	ND	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	33.2	NA	1.52
209-DeCB		NA	ND	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	61.9	NA	2.15
"Aroclor-based" total PCB data (mg/kg) <sup>(3)</sup>		0.00013444		0.000237774			0.00014668			0.000233306			0.00019602			0.00015308		0.00315168		0.00032124	
<b>Petroleum Hydrocarbons (mg/kg)</b>																					
Diesel Range Organics		100	<20	120	<12	700	21	28	150	<23	<14	360	28	28	360	45	22	21	88	4,900	27
Oil & Grease		5,300	55	2,300	<30	21,000	<51	130	71	<60	130	10,000	<61	<56	12,000	<58	<56	<39	190	11,000	260
Gasoline Range Organics		<0.6	<0.39	<0.45	<0.19	4.1	<0.39	<0.37	<0.4	<0.47	<0.28	0.87	<0.48	<0.4	<0.67	<0.42	<0.44	<0.29	<0.23	2.5	<0.3
<b>Dioxins (ng/kg)</b>																					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	1.07	ND	ND	ND	ND	1.02	ND	0.213	0.41	ND
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	0.911	ND	ND	ND	ND	1.76	ND	ND	0.317	ND
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	6.19	ND	ND	0.538	0.183	3.15	ND	ND	1.38	ND
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	3.96	ND	ND	0.425	ND	9.03	ND	1.75	1.28	ND
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)		NA	NA	NA	NA	NA	NA	NA	13.1	18.1	12.4	91.7	6.87	4.84	9.33	4.67	132	0.59	40.6	21.6	1.57
Octachlorodibenzo-p-dioxin (OCDD)		NA	NA	NA	NA	NA	NA	NA	585	642	443	1600	200	114	134	77.4	4220	12.2	1250	276	14.1
2,3,7,8-Tetrachlorodibenzofuran (TCDF)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	2.49	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	1.02	ND	ND	0.518	ND	ND	ND	ND	1.26	ND
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	1.92	ND	ND	ND	ND	ND	ND	ND	1.56	ND
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	3.64	ND	ND	0.795	0.107	ND	ND	0.321	3.25	ND
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	1.32	ND	ND	0.196	ND	ND	ND	0.133	1.27	ND
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	2.03	ND	ND	ND	ND	ND	ND	ND	1.65	ND
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)		NA	NA	NA	NA	NA	NA	NA	0.589	ND	ND	23.4	ND	0.497	2.77	0.633	0.557	ND	1.34	8.42	0.324
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	2.09	ND	ND	0.485	ND	ND	ND	ND	1.29	ND
Octachlorodibenzofuran (OCDF)		NA	NA	NA	NA	NA	NA	NA	0.953	ND	ND	73.9	0.209	1.39	9.08	2.17	1.16	ND	3.16	18.1	1.12
Tetrachlorodibenzo-p-dioxins (TCDD), Total		NA	NA	NA	NA	NA	NA	NA	ND	0.926	0.923	7.65	ND	ND	ND	ND	14.2	ND	32.2	0.749	ND
Pentachlorodibenzo-p-dioxin (PeCDD), Total		NA	NA	NA	NA	NA	NA	NA	0.578	4.65	1.95	10	0.422	ND	ND	ND	38.9	ND	29	ND	ND
Hexachlorodibenzo-p-dioxins (HxCDD), Total		NA	NA	NA	NA	NA	NA	NA	8.95	26.1	15.5	82.4	8.31	3.96	6.19	3.11	209	0.592	285	14.3	0.242
Heptachlorodibenzo-p-dioxins (HxCDD), Total		NA	NA	NA	NA	NA	NA	NA	55.1	90	56.9	246	31.4	22.8	24.8	13.2	670	1.9	448	56.5	3.86
Tetrachlorodibenzofurans (TCDF), Total		NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	21.2	0.199	ND	1.5	ND	0.391	ND	0.408	5.02	ND
Pentachlorodibenzofurans (PeCDF), Total		NA	NA	NA	NA	NA	NA	NA	0.269	ND	ND	28.3	ND	ND	0.79	ND	0.687	ND	0.501	1	

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	From MSL (ft) From ToS (ft)	Sample ID/Depth																			
		HA-116	HA-116	HA-117	HA-117	HA-118	HA-118	HA-118	HA-119	HA-119	HA-119	HA-120	HA-120	HA-120	HA-121	HA-121	HA-121	HA-122	HA-122	HA-123	HA-123
		0.0-2.0	10.0-12.0	0.0-2.0	8.0-10.0	0.0-2.0	10.0-12.0	22.0-24.0	0.0-2.0	6.0-8.0	14.0-16.0	0.0-2.0	8.0-10.0	15.0-17.0	0.0-2.0	14.0-16.0	26.0-27.0	0.0-2.0	8.0-10.0	0.0-2.0	14.0-16.0
		Shall	Deep	Shall	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Inter	Deep	Shall	Deep	Shall	Deep
Dibutyltin <sup>+2</sup>		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Monobutyltin <sup>+3</sup>		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Miscellaneous Parameters</b>																					
Percent Solids (%)		28	49	42	84	22	49	51	46	41	69	35	41	45	27	43	45	63	63	21	61
Total Cyanide (mg/kg)		3.53	<0.34	<0.38	<0.23	1.81	<0.37	<0.33	<0.37	<0.56	<0.33	<0.54	<0.56	<0.51	<0.77	<0.49	<0.47	<0.27	<0.3	2.43	<0.29
Total Kjeldahl Nitrogen (mg/kg)		4,200	1,900	2,000	<230	3,800	2,400	2,200	2,400	1,400	1,900	2,500	2,300	2,900	2,600	1,300	690	1,200	2,100	1,600	
Phosphorus (mg/kg)		740	350	730	22	6,300	320	400	970	420	320	2,400	400	450	2,400	430	420	670	1,200	1,600	330
Total Organic Carbon (mg/kg)		<350	<200	<240	NA	<460	<200	<190	<220	<240	<140	<290	<240	<220	<370	<230	<220	<160	<160	<490	<160
pH		7.6	8.1	7.7	7.9	7.6	8.5	8.3	8.2	8.3	8.2	8.3	8.4	8.2	8.1	8.2	8.3	6.9	6.8	8.3	7.3

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	From MSL (ft) From ToS (ft)								Min	Max	Sample with Max Concentration	Marine Sediment Guidelines <sup>(1)</sup>					Lowest Guideline <sup>(2)</sup>
	HA-124 0.0-2.0	HA-124 14.0-16.0	HA-125 0.0-2.0	HA-125 10.0-12.0	HA-126 0.0-2.0	HA-126 14.0-16.0	HA-127 0.0-2.0	HA-127 14.0-16.0				TEL	ERL	ERM	PEL	AET	
	Shall	Deep	Shall	Deep	Shall	Deep	Shall	Deep									
<b>Volatile Organics (ug/kg)</b>																	
1,1,1-Trichloroethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,1,2,2-Tetrachloroethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,1,2-Trichloroethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,1,2-Trichlorotrifluoroethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,1-Dichloroethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,1-Dichloroethene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,2,4-Trichlorobenzene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						4.8 4.8
1,2-Dibromo-3-chloropropane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,2-Dibromoethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,2-Dichlorobenzene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						13 13
1,2-Dichloroethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,2-Dichloropropane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,3-Dichlorobenzene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
1,4-Dichlorobenzene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						110 110
2-Butanone (MEK)	<63	<54	<56	<74	<52	<61	<65	<55	0	0	N/A						
2-Hexanone (MBK)	<13	<11	<11	<15	<10	<12	<13	<11	0	0	N/A						
4-Methyl-2-pentanone (MIBK)	<13	<11	<11	<15	<10	<12	<13	<11	0	0	N/A						
Acetone	<320	<140	<320	<120	<180	<190	<310	<230	0	0	N/A						
Benzene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Bromodichloromethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Bromoform	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Bromomethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Carbon disulfide	<13	<11	<11	<15	<10	<12	<13	<11	0	0	N/A						
Carbon tetrachloride	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Chlorobenzene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Chloroethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Chloroform	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Chloromethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
cis-1,2-Dichloroethene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
cis-1,3-Dichloropropene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Cyclohexane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Dibromochloromethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Dichlorodifluoromethane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Diisopropyl ether (DIPE)	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Ethyl t-butyl ether (ETBE)	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Ethylbenzene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						4 4
Isopropylbenzene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
m&p-Xylene	<13	<11	<11	<15	<10	<12	<13	<11	0	0	N/A						4 4
Methyl acetate	<32	<27	<28	<37	<26	<30	<33	<27	0	0	N/A						
Methyl t-butyl ether (MTBE)	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Methylcyclohexane	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
Methylene chloride	<160	<82	<85	<82	<63	<79	<140	<140	0	0	N/A						
o-Xylene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						4 4
Styrene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
tert-Amyl alcohol (TAA)	<32	<27	<28	<37	<26	<30	<33	<27	0	0	N/A						
tert-Amyl ethyl ether (TAEE)	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
tert-Amyl methyl ether (TAME)	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
tert-Butanol (TBA)	<32	<27	<28	<37	<26	<30	<33	<27	0	0	N/A						
Tetrachloroethene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						57 57
Toluene	<6	<5	<6	<7	<5	<6	<7	<5	0	0	N/A						
trans-1,2-Dichloroethene	<6	<5	<6														

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	From MSL (ft) From ToS (ft)								Min	Max	Sample with Max Concentration	Marine Sediment Guidelines <sup>(1)</sup>				
	HA-124 0.0-2.0	HA-124 14.0-16.0	HA-125 0.0-2.0	HA-125 10.0-12.0	HA-126 0.0-2.0	HA-126 14.0-16.0	HA-127 0.0-2.0	HA-127 14.0-16.0				TEL	ERL	ERM	PEL	AET
	Shall	Deep	Shall	Deep	Shall	Deep	Shall	Deep								
<b>Semivolatile Organics (ug/kg)</b>																
1,1-Biphenyl	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
2,4,5-Trichlorophenol	<470	<370	<420	<400	<380	<400	<440	<400	0	0	N/A					3 3
2,4,6-Trichlorophenol	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					6 6
2,4-Dichlorophenol	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					5 5
2,4-Dimethylphenol	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					18 18
2,4-Dinitrophenol	<470	<370	<420	<400	<380	<400	<440	<400	0	0	N/A					
2,4-Dinitrotoluene	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
2,6-Dinitrotoluene	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
2-Choronaphthalene	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
2-Chlorophenol	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					8 8
2-Methylnaphthalene	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A	20.21	70	670	201.28	64 20.21
2-Methylphenol	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					8 8
2-Nitroaniline	<470	<370	<420	<400	<380	<400	<440	<400	0	0	N/A					
2-Nitrophenol	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
3,3-Dichlorobenzidine	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
3-Nitroaniline	<470	<370	<420	<400	<380	<400	<440	<400	0	0	N/A					
4,6-Dinitro-2-methylphenol	<430	<340	<390	<370	<350	<360	<410	<370	0	0	N/A					
4-Bromophenyl phenyl ether	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
4-Chloro-3-methylphenol	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
4-Chloroaniline	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
4-Chlorophenyl phenyl ether	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
4-Methylphenol	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					100 100
4-Nitroaniline	<470	<370	<420	<400	<380	<400	<440	<400	0	0	N/A					
4-Nitrophenol	<470	<370	<420	<400	<380	<400	<440	<400	0	0	N/A					
Acenaphthene	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A	6.71	16	500	88.9	130 6.71
Acenaphthylene	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A	5.87	44	640	127.87	71 5.87
Acetophenone	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
Anthracene	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A	46.85	85.3	1100	245	280 46.85
Atrazine	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
Benz[a]anthracene	<190	<150	<170	<160	<150	<160	<180	<160	500	1,400	HA-120 0-2'	74.83	261	1600	692.53	960 74.83
Benz[a]pyrene	<190	<150	<170	<160	<150	<160	<180	<160	1,100	1,900	HA-120 0-2'	88.81	430	1600	763.22	1100 88.81
Benz[b]fluoranthene	<190	<150	<170	<160	<150	<160	<180	<160	760	2,300	HA-120 0-2'					1800 1800
Benz[g,h,i]perylene	<190	<150	<170	<160	<150	<160	<180	<160	1,300	1,300	HA-120 0-2'					670 670
Benz[k]fluoranthene	<190	<150	<170	<160	<150	<160	<180	<160	650	900	HA-120 0-2'					1800 1800
Bis (2-chloroethoxy) methane	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
Bis (2-chloroethyl) ether	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
Bis (2-chloroisopropyl) ether	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
Bis (2-ethylhexyl) phthalate	<190	<150	<170	<160	<150	<160	<180	<160	270	6,000	HA-123 0-2'	182.16				2646.51 1300 182.16
Butyl benzyl phthalate	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					63 63
Caprolactam	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
Carbazole	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					
Chrysene	<190	<150	<170	<160	<150	<160	<180	<160	520	1,700	HA-120 0-2'	107.77	384	2800	845.98	950 107.77
Dibenz[a,h]anthracene	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A	6.22	63.4	260	134.61	230 6.22
Dibenzofuran	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A					110 1

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	From MSL (ft) From ToS (ft)								Min	Max	Sample with Max Concentration	Marine Sediment Guidelines <sup>(1)</sup>					Lowest Guideline <sup>(2)</sup>
	HA-124	HA-124	HA-125	HA-125	HA-126	HA-126	HA-127	HA-127				TEL	ERL	ERM	PEL	AET	
	0.0-2.0	14.0-16.0	0.0-2.0	10.0-12.0	0.0-2.0	14.0-16.0	0.0-2.0	14.0-16.0									
	Shall	Deep	Shall	Deep	Shall	Deep	Shall	Deep									
Indeno[1,2,3-cd]pyrene	<190	<150	<170	<160	<150	<160	<180	<160	1,200	1,200	HA-120 0-2'						600 600
Isophorone	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A						
Naphthalene	<190	<150	<170	<160	<150	<160	<180	<160	390	7,900	HA-118 0-2'	34.57	160	2100	390.64	230	34.57
Nitrobenzene	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A						21 21
N-Nitroso-di-n-propylamine	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A						
N-Nitrosodiphenylamine	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A						28 28
Pentachlorophenol	<470	<370	<420	<400	<380	<400	<440	<400	0	0	N/A						17 17
Phenanthrene	<190	<150	<170	<160	<150	<160	<180	<160	460	540	HA-120 0-2'	86.68	240	1500	543.53	660	86.68
Phenol	<190	<150	<170	<160	<150	<160	<180	<160	0	0	N/A						130 130
Pyrene	<190	<150	<170	<160	<150	<160	<180	<160	1,100	3,100	HA-120 0-2'	152.66	665	2600	1397.6	2400	152.66
<b>Pesticides (ug/kg)</b>																	
4,4-DDD	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A	1.22	2	20	7.81	16	1.22
4,4-DDE	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A	2.07	2.2	27	374.17	9	2.07
4,4-DDT	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A	1.19	1	7	4.77	12	1
a-BHC	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
a-Chlordane	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A	2.26	0.5	6	4.79	2.8	0.5
Aldrin	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						9.5 9.5
b-BHC	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
d-BHC	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
Dieldrin	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A	0.715	0.02	8	4.3	1.9	0.02
Endosulfan I	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
Endosulfan II	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
Endosulfan Sulfate	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
Endrin	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
Endrin Aldehyde	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
Endrin Ketone	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
g-BHC (Lindane)	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
g-Chlordane	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A	2.26	0.5	6	4.79	2.8	0.5
Heptachlor	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						0.3 0.3
Heptachlor Epoxide	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
Methoxychlor	<20	<17	<19	<18	<16	<18	<19	<17	0	0	N/A						
Toxaphene	<200	<170	<190	<180	<160	<180	<190	<170	0	0	N/A						
<b>PCBs (mg/kg)</b>																	
Aroclor 1016	<0.099	NA	<0.094	NA	<0.082	NA	<0.095	NA	0	0	N/A	0.02155	0.0227	0.18	0.18879	0.13	0.02155
Aroclor 1221	<0.099	NA	<0.094	NA	<0.082	NA	<0.095	NA	0	0	N/A	0.02155	0.0227	0.18	0.18879	0.13	0.02155
Aroclor 1232	<0.099	NA	<0.094	NA	<0.082	NA	<0.095	NA	0	0	N/A	0.02155	0.0227	0.18	0.18879	0.13	0.02155
Aroclor 1242	<0.099	NA	<0.094	NA	<0.082	NA	<0.095	NA	0	0	N/A	0.02155	0.0227	0.18	0.18879	0.13	0.02155
Aroclor 1248	<0.099	NA	<0.094	NA	<0.082	NA	<0.095	NA	0	0	N/A	0.02155	0.0227	0.18	0.18879	0.13	0.02155
Aroclor 1254	<0.099	NA	<0.094	NA	<0.082	NA	<0.095	NA	0	0	N/A	0.02155	0.0227	0.18	0.18879	0.13	0.02155
Aroclor 1260	<0.099	NA	<0.094	NA	<0.082	NA	<0.095	NA	0.15	0.22	HA-121 0-2'	0.02155	0.0227	0.18	0.18879	0.13	0.02155
<b>PCB Congeners (pg/g)</b>																	
8-DiCB	NA	8.07	NA	6.46	NA	7.65	NA	8.02	6.46	22.0	HA-122 8-10'						
18,30-TrCB	NA	4.18	NA	4.54	NA	4.88	NA	5.28	4.18	51.9	HA-122 8-10'						
20,28-TrCB	NA																

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	From MSL (ft) From ToS (ft)									Sample with Max Concentration	Marine Sediment Guidelines <sup>(1)</sup>						
	HA-124	HA-124	HA-125	HA-125	HA-126	HA-126	HA-127	HA-127			TEL	ERL	ERM	PEL	AET		
	0.0-2.0	14.0-16.0	0.0-2.0	10.0-12.0	0.0-2.0	14.0-16.0	0.0-2.0	14.0-16.0									
	Shall	Deep	Shall	Deep	Shall	Deep	Shall	Deep									
179-HpCB	NA	0.625	NA	ND	NA	ND	NA	ND	0.63	35.2	HA-122 8-10'						
180,193-HpCB	NA	1.22	NA	ND	NA	2.6	NA	2.59	1.22	106	HA-122 8-10'						
187-HpCB	NA	0.679	NA	ND	NA	2.02	NA	1.71	0.68	100	HA-122 8-10'						
195-OcCB	NA	ND	NA	ND	NA	ND	NA	ND	7.94	7.94	HA-122 8-10'						
206-NoCB	NA	ND	NA	ND	NA	ND	NA	ND	1.52	33.2	HA-122 8-10'						
209-DeCB	NA	ND	NA	ND	NA	ND	NA	ND	2.15	61.9	HA-122 8-10'						
"Aroclor-based" total PCB data (mg/kg) <sup>(3)</sup>		0.000116242		0.000099328		0.0001425		0.00013214			0.02155	0.0227	0.18	0.18879	0.13	0.02155	
<b>Petroleum Hydrocarbons (mg/kg)</b>																	
Diesel Range Organics	150	62	18	39	57	31	47	49	18	4,900	HA-123 0-2'						
Oil & Grease	340	70	320	230	150	530	150	110	55	21,000	HA-118 0-2'						
Gasoline Range Organics	<0.35	<0.27	<0.31	<0.3	<0.27	<0.3	<0.31	<0.27	0.87	4.1	HA-118 0-2'						
<b>Dioxins (ng/kg)</b>																	
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	ND	ND	ND	ND	ND	ND	ND	ND	0	0	N/A						
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	ND	ND	ND	ND	ND	ND	ND	ND	0.213	1.07	HA-120 0-2'						
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	ND	ND	ND	ND	0.308	ND	ND	0.308	1.76	HA-121 26-27'							
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	ND	ND	ND	ND	0.666	ND	0.12	0.120	6.19	HA-120 0-2'							
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	ND	ND	ND	ND	2.74	ND	ND	0.425	9.03	HA-121 26-27'							
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	3.22	0.531	1.34	0.425	2.43	43.8	2.89	2.29	0.425	132	HA-121 26-27'						
Octachlorodibenzo-p-dioxin (OCDD)	39.4	8.62	20.5	7.01	29.8	1210	29.9	22.9	7.01	4,220	HA-121 26-27'						
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	ND	ND	ND	ND	ND	ND	ND	ND	2.49	2.49	HA-120 0-2'						
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	ND	ND	ND	ND	ND	ND	ND	ND	0.518	1.26	HA-123 0-2'						
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	ND	ND	ND	ND	ND	ND	ND	ND	1.56	1.92	HA-120 0-2'						
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	ND	ND	ND	ND	ND	ND	ND	ND	0.107	3.64	HA-120 0-2'						
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	ND	ND	ND	ND	ND	ND	ND	ND	0.133	1.32	HA-120 0-2'						
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	ND	ND	ND	ND	ND	ND	ND	ND	0	0	N/A						
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	ND	ND	ND	ND	ND	ND	ND	ND	1.65	2.03	HA-120 0-2'						
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	0.45	ND	ND	ND	0.236	0.278	0.386	0.446	0.236	23.4	HA-120 0-2'						
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	ND	ND	ND	ND	ND	ND	ND	ND	0.485	2.09	HA-120 0-2'						
Octachlorodibenzofuran (OCDF)	1.24	ND	ND	0.171	0.836	0.786	1.17	1.53	0.171	73.9	HA-120 0-2'						
Tetrachlorodibenzo-p-dioxins (TCDD), Total	0.741	ND	ND	ND	0.901	6.09	0.344	ND	0.344	32.2	HA-122 8-10'						
Pentachlorodibenzo-p-dioxin (PeCDD), Total	0.356	ND	0.238	ND	1.11	10	0.206	ND	0.206	38.9	HA-121 26-27'						
Hexachlorodibenzo-p-dioxins (HxCDD), Total	3.76	ND	3.97	ND	8.47	79.3	1.99	1.61	0.242	285	HA-122 8-10'						
Heptachlorodibenzo-p-dioxins (HpCDD), Total	12.5	2.63	7.46	2.45	13.5	279	9.77	5.01	1.90	670	HA-121 26-27'						
Tetrachlorodibenzofurans (TCDF), Total	ND	ND	ND	ND	ND	ND	ND	ND	0.199	21.2	HA-120 0-2'						
Pentachlorodibenzofurans (PeCDF), Total	ND	ND	ND	ND	ND	ND	ND	ND	0.269	28.3	HA-120 0-2'						
Hexachlorodibenzofurans (HxCDF), Total	ND	ND	ND	ND	0.233	0.282	0.716	0.123	29.5	HA-120 0-2'							
Heptachlorodibenzofurans (HpCDF), Total	0.45	ND	ND	ND	ND	ND	1.51	1.17	0.324	57.7	HA-120 0-2'						
Toxic Equivalents <sup>(4)</sup>	0.011784	0.001393	0.00339	0.001143	0.007854	0.662259	0.009857	0.021193	0.001	4.96	HA-121 26-27'			3.6	3.6		
<b>Metals (mg/kg)</b>																	
Arsenic	4.8	9.1	6.5	7.3	9	8.1	3.5	6.6	3.3	130	HA-118 0-2'	7.24	8.2	70	41.6	35	7.24
Barium	110	120	120	73	120	74	110	78	16	200	HA-123 0-2'				48	48	48
Cadmium	<2.8	<2.1	<2.9	<2.1	<2	<2.2	<2.6	<2.3	4.4	8.5	HA-118 0-2'	0.676	1.2	9.6	4.21	3	0.676
Chromium	41	25	37	29	36	29	32	26	21	1,300	HA-118 0-2'	52.3	81	370	160.4	62	52.3
Copper	24	13	20	18	17	18	19	14	7.3	630	HA-123 0-2'	18.7	34	270	108.2	390	18.7
Iron	42,000	41,000	61,000	52,000	30,000	49,000	35,000	44,000	17,000	190,000	HA-118 0-2'				220,000	220,000	
Lead	24	18	29	24	17	23	18	20	11	600	HA-118 0-2'	30.24	46.7	218	112.18	400	30.24
Mercury	<0.55	<0.42	<0.59	<0.41	<0.41	<0.44	<0.52	<0.46	0.6	1.3	HA-118 0-2'	0.13	0.15	0.71	0.696	0.41	0.13

**TABLE 2 (Revised 12 October 2007)**  
**SEDIMENT RESULTS AND COMPARISON TO SEDIMENT GUIDELINES**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	From MSL (ft) From ToS (ft)									Min	Max	Sample with Max Concentration	Marine Sediment Guidelines <sup>(1)</sup>				
		HA-124	HA-124	HA-125	HA-125	HA-126	HA-126	HA-127	HA-127				TEL	ERL	ERM	PEL	AET
		Shall	Deep	Shall	Deep	Shall	Deep	Shall	Deep								
Dibutyltin <sup>(2)</sup>		ND	0	0	N/A												
Monobutyltin <sup>(3)</sup>		ND	0	0	N/A												

Miscellaneous Parameters	57	69	61	65	70	63	59	65	21	84	HA-117 8-10'					
Percent Solids (%)																
Total Cyanide (mg/kg)	<0.33	<0.28	<0.31	<0.29	<0.26	<0.27	<0.27	<0.28	1.81	3.53	HA-116 0-2'					
Total Kjeldahl Nitrogen (mg/kg)	2,200	1,700	1,900	1,700	1,400	1,700	1,700	1,800	690	4,200	HA-116 0-2'					
Phosphorus (mg/kg)	460	300	290	280	210	280	300	380	22	6,300	HA-118 0-2'					
Total Organic Carbon (mg/kg)	<170	<140	<160	<150	<140	<160	<170	<150	0	0	N/A					
pH	7	8	6.8	7.1	6.7	7.2	6.4	7.7	6.4	8.5	HA-118 10-12'					

Notes:

- Nondetected results show the sample reporting limit preceded by a "<" symbol.
- Positive results with concentrations greater than the Lowest Guideline are shaded yellow.
- Nondetected results with detection limits greater than the Lowest Guideline are shaded gray.

Acronyms:

TEL = Threshold Effects Level  
 PEL = Probable Effect Level  
 ERL = Effects Range-Low  
 ERM = Effects Range-Median  
 AET = Apparent Effects Threshold  
 PCB = Polychlorinated Biphenyl  
 Min = Minimum sample concentration  
 Max = Maximum sample concentration  
 ND = Nondetect  
 NA = Not Analyzed/Will not be analyzed  
 N/A = Not Available/Not Applicable  
 MSL = Mean Sea Level  
 ToS = Top of Sediment

Footnotes:

- (1) Values are from NOAA Screening Quick Reference Tables (Buchman, 1999).
- (2) The lowest guideline was used for conservativeness.
- (3) Per NOAA Technical Memorandum NMFS-NE-157 the sum of concentrations of 18 specific PCB congeners was multiplied by 2 to generate an approximation of "Aroclor-based" total PCB data for comparison with the historical total PCB data.
- (4) Aggregate toxicity is represented by calculating a single value for all dioxins combined in terms of the most toxic dioxin congener 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) based on the World Health Organization Toxic Equivalency Factors for Fish (Van den Berg, et al 2006)
- (5) Table was revised 12 October 2007 to include tributyltin results

**TABLE 3 (Revised 12 October 2007)**  
**WATER RESULTS AND COMPARISON TO MARINE CRITERIA**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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**TABLE 3 (Revised 12 October 2007)**  
**WATER RESULTS AND COMPARISON TO MARINE CRITERIA**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	Sample ID/Depth																	
	HA-116	HA-116	HA-117	HA-117	HA-118	HA-118	HA-119	HA-119	HA-120	HA-120	HA-121	HA-121	HA-122	HA-122	HA-123	HA-123	HA-124	HA-124
	Shall	Deep	Shall	Deep	Shall	Inter	Shall	Inter	Shall	Inter	Shall	Inter	Shall	Deep	Shall	Deep	Shall	Deep
	0.0-2.0	10.0-12.0	0.0-2.0	8.0-10.0	0.0-2.0	10.0-12.0	0.0-2.0	6.0-8.0	0.0-2.0	8.0-10.0	0.0-2.0	14.0-16.0	0.0-2.0	8.0-10.0	0.0-2.0	14.0-16.0	0.0-2.0	14.0-16.0
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
<b>Semivolatile Organics (ug/L)</b>																		
1,1-Biphenyl	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<11	<10
2,4,5-Trichlorophenol	<43	<29	<33	<28	<29	<30	<27	<27	<29	<34	<30	<42	<28	<30	<27	<27	<27	<26
2,4,6-Trichlorophenol	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2,4-Dichlorophenol	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2,4-Dimethylphenol	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2,4-Dinitrophenol	<43	<29	<33	<28	<29	<30	<27	<27	<29	<34	<30	<42	<28	<30	<27	<27	<26	
2,4-Dinitrotoluene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2,6-Dinitrotoluene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2-Chloronaphthalene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2-Chlorophenol	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2-Methylnaphthalene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2-Methylphenol	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2-Nitroaniline	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
2-Nitrophenol	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
3,3-Dichlorobenzidine	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
3-Nitroaniline	<43	<29	<33	<28	<29	<30	<27	<27	<29	<34	<30	<42	<28	<30	<27	<27	<26	
4,6-Dinitro-2-methylphenol	<43	<29	<33	<28	<29	<30	<27	<27	<29	<34	<30	<42	<28	<30	<27	<27	<26	
4-Bromophenyl phenyl ether	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
4-Chloro-3-methylphenol	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
4-Chloroaniline	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
4-Chlorophenyl phenyl ether	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
4-Methylphenol	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
4-Nitroaniline	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
4-Nitrophenol	<43	<29	<33	<28	<29	<30	<27	<27	<29	<34	<30	<42	<28	<30	<27	<27	<26	
Acenaphthene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Acenaphthylene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Acetophenone	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Anthracene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Atrazine	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Benzo[a]anthracene	<17	<12	<13	<11	<11</td													

**TABLE 3 (Revised 12 October 2007)**  
**WATER RESULTS AND COMPARISON TO MARINE CRITERIA**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	Sample ID/Depth																	
	HA-116	HA-116	HA-117	HA-117	HA-118	HA-118	HA-119	HA-119	HA-120	HA-120	HA-121	HA-121	HA-122	HA-122	HA-123	HA-123	HA-124	HA-124
	Shall	Deep	Shall	Deep	Shall	Inter	Shall	Inter	Shall	Inter	Shall	Inter	Shall	Deep	Shall	Deep	Shall	Deep
Dibenz[a,h]anthracene	<17	<12	<13	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<11	<10	
Dibenzofuran	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Diethyl phthalate	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Dimethyl phthalate	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Di-n-butyl phthalate	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Di-n-octyl phthalate	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Fluoranthene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Fluorene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Hexachlorobenzene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Hexachlorobutadiene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Hexachlorocyclopentadiene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Hexachloroethane	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Indeno[1,2,3-cd]pyrene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Isophorone	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Naphthalene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Nitrobenzene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
N-Nitroso-di-n-propylamine	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
N-Nitrosodiphenylamine	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Pentachlorophenol	<43	<29	<33	<28	<29	<30	<27	<27	<29	<34	<30	<42	<28	<30	<27	<27	<26	
Phanthrene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Phenol	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
Pyrene	<17	<12	<13	<11	<11	<12	<11	<11	<12	<14	<12	<17	<11	<12	<11	<11	<10	
<b>Pesticides (ug/L)</b>																		
4,4-DDD	<0.1	<0.08	<0.1	<0.08	<0.09	<0.08	<0.09	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
4,4-DDE	<0.1	<0.08	<0.1	<0.08	<0.09	<0.08	<0.09	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
4,4-DDT	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.09	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
a-BHC	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.09	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
a-Chlordane	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.09	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
Aldrin	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
b-BHC	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
d-BHC	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
Dieldrin	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
Endosulfan I	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
Endosulfan II	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
Endosulfan Sulfate	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
Endrin	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.09	<0.09	<0.09	<0.1	<0.1	<0.1	<0.09	<0.09	<0.1	<0.1	
Endrin Aldehyde	<0.1	<0.08	<0.1	<0.08	<0.09	<0.09	<0.08	<0.										

**TABLE 3 (Revised 12 October 2007)**  
**WATER RESULTS AND COMPARISON TO MARINE CRITERIA**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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**TABLE 3 (Revised 12 October 2007)**  
**WATER RESULTS AND COMPARISON TO MARINE CRITERIA**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical	Sample ID/Depth																	
	HA-116	HA-116	HA-117	HA-117	HA-118	HA-118	HA-119	HA-119	HA-120	HA-120	HA-121	HA-121	HA-122	HA-122	HA-123	HA-123	HA-124	HA-124
	0.0-2.0	10.0-12.0	0.0-2.0	8.0-10.0	0.0-2.0	10.0-12.0	0.0-2.0	6.0-8.0	0.0-2.0	8.0-10.0	0.0-2.0	14.0-16.0	0.0-2.0	8.0-10.0	0.0-2.0	14.0-16.0	0.0-2.0	14.0-16.0
	Shall	Deep	Shall	Deep	Shall	Inter	Shall	Inter	Shall	Inter	Shall	Inter	Shall	Deep	Shall	Deep	Shall	Deep
Tributyltin (ng/L)																		
TBT	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	ND	18	43	ND	ND	ND	ND
DBT	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	ND	1	1	5	ND	ND	ND	ND
MBT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Miscellaneous Parameters																		
Total Cyanide (mg/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Kjeldahl Nitrogen (mg/L)	28	42	18	8.5	17	21	13	19	31	22	22	9.8	7.4	19	26	14	31	24
Phosphorus (mg/L)	0.55	1.2	0.27	<0.2	0.33	2.2	0.83	2.3	2.5	0.53	2.8	0.51	<0.2	0.22	0.56	0.3	0.24	0.26
TOC (mg/L)	14	17	6.1	4	12	11	5.8	11	14	14	9.1	19	3.1	5.4	10	6.3	7.5	7
pH	8.1	8.2	7.8	7.5	7.5	8.1	8	8.3	7.9	8.3	7.9	8.4	7.2	7.1	7.4	7.1	6.4	7.3

**TABLE 3 (Revised 12 October 2007)**  
**WATER RESULTS AND COMPARISON TO MARINE CRITERIA**  
**AES SPARROWS POINT, BALTIMORE, MD**  
**PAGE 16 OF 20**

Chemical								Min	Max	Sample with Max Concentration	Marine Ambient Water Quality Criteria <sup>(1)</sup>		Notes
	HA-125	HA-125	HA-126	HA-126	HA-127	HA-127	Blank River Water				Acute	Chronic	
	0.0-2.0	10.0-12.0	0.0-2.0	14.0-16.0	0.0-2.0	14.0-16.0	NA						
	Shall	Deep	Shall	Deep	Shall	Deep	NA						
<b>Volatile Organics (ug/L)</b>													
1,1,1-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	31200		
1,1,2,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	9020		
1,1,2-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
1,1,2-Trichlorotrifluoroethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
1,1-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
1,1-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
1,2,4-Trichlorobenzene	<2	<2	<2	<2	<2	<2	<2	0	0	N/A	160	129	
1,2-Dibromo-3-chloropropane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
1,2-Dibromoethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
1,2-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	1970	129	
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	113000		
1,2-Dichloropropane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	1970	129	
2-Butanone (MEK)	<5	<5	<5	<5	<5	<5	<5	0	0	N/A			
2-Hexanone (MBK)	<5	<5	<5	<5	<5	<5	<5	0	0	N/A			
4-Methyl-2-pentanone (MIBK)	<5	<5	<5	<5	<5	<5	<5	0	0	N/A			
Acetone	<40	<80	<65	<90	<80	<85	<10	0	0	N/A			
Benzene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	5100	700	
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	12000	6400	
Bromoform	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
Bromomethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
Carbon disulfide	<5	<5	<5	<5	<5	<5	<5	0	0	N/A			
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	50000		
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	160	129	
Chloroethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
Chloroform	5	5	4	4	4	4	6	1	6	BLANK			
Chloromethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
cis-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	224000		
cis-1,3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
Cyclohexane	<5	<5	<5	<5	<5	<5	<5	0	0	N/A			
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	12000	6400	
Dichlorodifluoromethane	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	12000	6400	
Diisopropyl ether (DIPE)	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
Ethyl t-butyl ether (ETBE)	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	430		
Isopropylbenzene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
m&p-Xylene	<2	<2	<2	<2	<2	<2	<2	0	0	N/A			
Methyl acetate	<5	<5	<5	<5	<5	<5	<5	0	0	N/A			
Methyl t-butyl ether (MTBE)	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
Methylcyclohexane	<5	<5	<5	<5	<5	<5	<5	0	0	N/A			
Methylene chloride	<75	<80	<60	<75	<60	<80	<10	0	0	N/A	12000	6400	
o-Xylene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
Styrene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
tert-Amyl alcohol (TAA)	<25	<25	<25	<25	<25	<25	<25	0	0	N/A			
tert-Amyl ethyl ether (TAEE)	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
tert-Amyl methyl ether (TAME)	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
tert-Butanol (TBA)	<25	<25	<25	<25	<25	<25	<25	0	0	N/A			
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	10200	450	

**TABLE 3 (Revised 12 October 2007)**  
**WATER RESULTS AND COMPARISON TO MARINE CRITERIA**  
**AES SPARROWS POINT, BALTIMORE, MD**  
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Chemical								Min	Max	Sample with Max Concentration	Marine Ambient Water Quality Criteria <sup>(1)</sup>		Notes
	HA-125	HA-125	HA-126	HA-126	HA-127	HA-127	Blank River Water						
	0.0-2.0	10.0-12.0	0.0-2.0	14.0-16.0	0.0-2.0	14.0-16.0	NA						
	Shall	Deep	Shall	Deep	Shall	Deep	NA						
Toluene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	6300	5000	
trans-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	224000		
trans-1,3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A			
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	2000		
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<5	0	0	N/A	12000	6400	
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	224000		
<b>Semivolatile Organics (ug/L)</b>													
1,1-Biphenyl	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
2,4,5-Trichlorophenol	<27	<28	<27	<30	<27	<26	<27	0	0	N/A	240	11	
2,4,6-Trichlorophenol	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
2,4-Dichlorophenol	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
2,4-Dimethylphenol	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
2,4-Dinitrophenol	<27	<28	<27	<30	<27	<26	<27	0	0	N/A			
2,4-Dinitrotoluene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	590	370	
2,6-Dinitrotoluene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
2-Chloronaphthalene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	7.5		
2-Chlorophenol	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
2-Methylnaphthalene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300		
2-Methylphenol	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
2-Nitroaniline	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
2-Nitrophenol	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
3,3-Dichlorobenzidine	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
3-Nitroaniline	<27	<28	<27	<30	<27	<26	<27	0	0	N/A			
4,6-Dinitro-2-methylphenol	<27	<28	<27	<30	<27	<26	<27	0	0	N/A			
4-Bromophenyl phenyl ether	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
4-Chloro-3-methylphenol	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
4-Chloroaniline	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	160	129	
4-Chlorophenyl phenyl ether	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
4-Methylphenol	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
4-Nitroaniline	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
4-Nitrophenol	<27	<28	<27	<30	<27	<26	<27	0	0	N/A	4850		
Acenaphthene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	970	710	
Acenaphthylene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300		
Acetophenone	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
Anthracene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300		
Atrazine	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
Benzo[a]anthracene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300		
Benzo[a]pyrene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300		
Benzo[b]fluoranthene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300		
Benzo[g,h,i]perylene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300		
Benzo[k]fluoranthene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300		
Bis (2-chloroethoxy) methane	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
Bis (2-chloroethyl) ether	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
Bis (2-chloroisopropyl) ether	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
Bis (2-ethylhexyl) phthalate	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	400	360	
Butyl benzyl phthalate	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	2944	3.4	
Caprolactam	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
Carbazole	<11	<11	<11	<12	<11	<11	<11	0	0	N/A			
Chrysene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300		

**TABLE 3 (Revised 12 October 2007)**  
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Chemical								Min	Max	Sample with Max Concentration	Marine Ambient Water Quality Criteria <sup>(1)</sup>		Notes		
	HA-125	HA-125	HA-126	HA-126	HA-127	HA-127	Blank River Water								
	0.0-2.0	10.0-12.0	0.0-2.0	14.0-16.0	0.0-2.0	14.0-16.0	NA								
	Shall	Deep	Shall	Deep	Shall	Deep	NA				Acute	Chronic			
Dibenz[a,h]anthracene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300				
Dibenzofuran	<11	<11	<11	<12	<11	<11	<11	0	0	N/A					
Diethyl phthalate	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	2944	3.4			
Dimethyl phthalate	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	2944	3.4			
Di-n-butyl phthalate	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	2944	3.4			
Di-n-octyl phthalate	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	2944	3.4			
Fluoranthene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	40	16			
Fluorene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300				
Hexachlorobenzene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	160	129			
Hexachlorobutadiene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	32				
Hexachlorocyclopentadiene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	7				
Hexachloroethane	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	940				
Indeno[1,2,3-cd]pyrene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300				
Isophorone	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	12900				
Naphthalene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	2350				
Nitrobenzene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	6680				
N-Nitroso-di-n-propylamine	<11	<11	<11	<12	<11	<11	<11	0	0	N/A					
N-Nitrosodiphenylamine	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	3300000				
Pentachlorophenol	<27	<28	<27	<30	<27	<26	<27	0	0	N/A	13	7.9			
Phenanthrene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	7.7	4.6			
Phenol	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	5800				
Pyrene	<11	<11	<11	<12	<11	<11	<11	0	0	N/A	300				

<b>Pesticides (ug/L)</b>												
4,4-DDD	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	3.6	
4,4-DDE	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	14	
4,4-DDT	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.065	0.0005
a-BHC	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.34	
a-Chlordane	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.045	0.002
Aldrin	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.65	
b-BHC	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.34	
d-BHC	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.34	
Dieldrin	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.355	0.00095
Endosulfan I	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.017	0.00435
Endosulfan II	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.017	0.00435
Endosulfan Sulfate	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A		
Endrin	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.0185	0.00115
Endrin Aldehyde	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A		
Endrin Ketone	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A		
g-BHC (Lindane)	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.08	
g-Chlordane	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.045	0.002
Heptachlor	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.0265	0.0018
Heptachlor Epoxide	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A	0.0265	0.0018
Methoxychlor	<0.08	<0.1	<0.09	<0.1	<0.09	<0.09	<0.08	0	0	N/A		0.03
Toxaphene	<2	<3	<2	<2	<2	<2	<2	0	0	N/A	0.21	0.0002

<b>PCBs (ug/L)</b>												
Aroclor 1016	<0.5	<0.6	<0.5	<0.6	<0.5	<0.5	<0.5	0	0	N/A	10	0.03
Aroclor 1221	<0.5	<0.6	<0.5	<0.6	<0.5	<0.5	<0.5	0	0	N/A	10	0.03
Aroclor 1232	<0.5	<0.6	<0.5	<0.6	<0.5	<0.5	<0.5	0	0	N/A	10	0.03

**TABLE 3 (Revised 12 October 2007)**  
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Chemical	HA-125	HA-125	HA-126	HA-126	HA-127	HA-127	Blank River Water			Sample with Max Concentration	Marine Ambient Water Quality Criteria <sup>(1)</sup>		Notes
							NA				Min	Max	
	0.0-2.0	10.0-12.0	0.0-2.0	14.0-16.0	0.0-2.0	14.0-16.0	NA						
	Shall	Deep	Shall	Deep	Shall	Deep	NA						
Aroclor 1242	<0.5	<0.6	<0.5	<0.6	<0.5	<0.5	<0.5	0	0	N/A	10	0.03	
Aroclor 1248	<0.5	<0.6	<0.5	<0.6	<0.5	<0.5	<0.5	0	0	N/A	10	0.03	
Aroclor 1254	<0.5	<0.6	<0.5	<0.6	<0.5	<0.5	<0.5	0	0	N/A	10	0.03	
Aroclor 1260	<0.5	<0.6	<0.5	<0.6	<0.5	<0.5	<0.5	0	0	N/A	10	0.03	
<b>Petroleum Hydrocarbons (mg/L)</b>													
Diesel Range Organics	<0.21	<0.26	0.22	<0.24	<0.21	<0.21	<0.2	0.22	0.62	HA-123 0-2'			
Oil & Grease	<5	<5	<5	<5	<5	<5	<5	0	0	N/A			
Gasoline Range Organics	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	0.2	HA-123 0-2'			
<b>Dioxins (pg/L)</b>													
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	ND	ND	ND	ND	ND	ND	N/A	1.4	2.56	HA-124 14-16'			
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	ND	ND	ND	ND	ND	ND	N/A	10.4	10.4	HA-120 8-10'			
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	ND	1.6	2.18	3.64	3.42	3.31	N/A	1.6	229	HA-120 8-10'			
Octachlorodibenzo-p-dioxin (OCDD)	25.1	28.8	17	41.2	33	42.3	N/A	17	8950	HA-120 8-10'			
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	ND	ND	ND	ND	ND	ND	N/A	1.00	1.63	HA-122 0-2'			
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	ND	ND	ND	ND	ND	ND	N/A	0.943	12.6	HA-124 14-16'			
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	ND	ND	ND	ND	4.68	ND	N/A	4.68	4.68	HA-127 0-2'			
Octachlorodibenzofuran (OCDF)	ND	ND	ND	ND	ND	ND	N/A	2.01	78.0	HA-124 14-16'			
Tetrachlorodibenzo-p-dioxins (TCDD), Total	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
Pentachlorodibenzo-p-dioxin (PeCDD), Total	ND	ND	ND	ND	ND	ND	N/A	35.2	35.2	HA-120 8-10'			
Hexachlorodibenzo-p-dioxins (HxCDD), Total	ND	1.39	3.68	2.66	2.39	2.3	N/A	1.30	278	HA-120 8-10'			
Heptachlorodibenzo-p-dioxins (HpCDD), Total	5.72	6.29	5.3	13.3	8.83	ND	N/A	3.01	1190	HA-120 8-10'			
Tetrachlorodibenzofurans (TCDF), Total	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
Pentachlorodibenzofurans (PeCDF), Total	ND	ND	ND	ND	ND	ND	N/A	1.70	1.86	HA-124 14-16'			
Hexachlorodibenzofurans (HxCDF), Total	ND	ND	ND	ND	ND	ND	N/A	0.464	14.7	HA-124 14-16'			
Heptachlorodibenzofurans (HpCDF), Total	ND	ND	ND	ND	ND	ND	N/A	0.943	61.1	HA-124 14-16'			
Toxic Equivalents	0.0251	0.0448	0.0388	0.0776	0.114	0.0754	N/A	0.0251	12.3	HA-120 8-10'			
<b>Metals (ug/L)</b>													
Arsenic	<5	<5	<5	<5	<5	<5	<5	6.6	27	HA-116 0-2'	2319		LOEL, not criterion
Barium	950	740	750	720	780	770	97	56	950	HA-125 0-2'			
Cadmium	<5	<5	<5	<5	<5	<5	<5	0	0	N/A	42	9.3	
Chromium	<5	<5	<5	<5	<5	<5	<5	0	0	N/A	1100	50	Hexavalent Cr
Copper	<5	<5	<5	<5	<5	<5	<5	0	0	N/A	4.8	3.1	
Iron	110	<100	2,300	390	3,600	190	<100	110	3,600	HA-127 0-2'			
Lead	<5	<5	<5	<5	<5	<5	<5	5.3	5.4	HA-116 0-2'	210	8.1	
Mercury	<1	<1	<1	<1	<1	<1	<1	0	0	N/A	1.8	0.94	
Selenium	<5	<5	<5	<5	<5	<5	<5	0	0	N/A	290	71	
Silver	<5	<5	<5	<5	<5	<5	<5	0	0	N/A	0.95		

**TABLE 3 (Revised 12 October 2007)**  
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Chemical								Min	Max	Sample with Max Concentration	Marine Ambient Water Quality Criteria <sup>(1)</sup>		Notes
	HA-125	HA-125	HA-126	HA-126	HA-127	HA-127	Blank River Water						
	0.0-2.0	10.0-12.0	0.0-2.0	14.0-16.0	0.0-2.0	14.0-16.0	NA						
	Shall	Deep	Shall	Deep	Shall	Deep	NA						
<b>Tributyltin (ng/L)</b>													
TBT	ND	ND	ND	ND	ND	ND	N/A	4	43	HA-123 0-2'			
DBT	ND	ND	ND	ND	ND	ND	N/A	1	5	HA-123 0-2'			
MBT	ND	ND	ND	ND	ND	ND	N/A	0	0	N/A			
<b>Miscellaneous Parameters</b>													
Total Cyanide (mg/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0	0	N/A			
Total Kjeldahl Nitrogen (mg/L)	16	21	14	18	15	20	6.8	6.8	42	HA-116 10-12'			
Phosphorus (mg/L)	0.32	<0.2	0.26	<0.2	0.26	0.21	0.39	0.21	2.8	HA-121 0-2'			
TOC (mg/L)	5	6.4	5.6	6.7	7	6.1	3.1	3.1	19	HA-121 14-16'			
pH	7.1	7.4	6.1	7.2	5.8	7	7	5.8	8.4	HA-121 14-16'			

Notes:

- Nondetected results show the sample reporting limit preceded by a "<" symbol.
- Nondetected results for dioxins are reported as "ND".

Acronyms:

PCB = Polychlorinated Biphenyl  
 Min = Minimum sample concentration  
 Max = Maximum sample concentration  
 ND = Nondetect  
 NA = Not Analyzed/Will not be analyzed  
 N/A = Not Available/Not Applicable  
 MSL = Mean Sea Level  
 ToS = Top of Sediment  
 LOEL = Lowest Observable Effect Level  
 TBT = Tributyltin  
 DBT = Dibutyltin  
 MBT = Monobutyltin

Footnotes:

- (1) Values are from NOAA Screening Quick Reference Tables (Buchman, 1999).
- (2) Table was revised 12 October 2007 to include tributyltin results