DELAWARE RIVER BASIN COMMISSION

FINAL

Amendments to the Water Quality Regulations, Water Code and Comprehensive Plan to Update Water Quality Criteria for Toxic Pollutants in the Delaware Estuary and Extend These Criteria to Delaware Bay

Proposed: Delaware Register of Regulations (14 DE Reg. 70-83 (08/01/2010)) on August 1, 2010.
Adopted: December 8, 2010 by the Delaware River Basin Commission, Pamela M. Bush, Esq., Secretary.
Filed: April 21, 2011.
Authority: Laws of 1961, Chapter 13, Approved May 1, 1961 *(Delaware River Basin Compact)*.
Effective Date: Upon publication in the Delaware Register of Regulations. The rule was incorporated by reference into the *Code of Federal Regulations* effective March 23, 2011.
Expiration Date: N/A

The Delaware River Basin Commission ("Commission" or "DRBC") is a Federal-state regional agency charged with managing the water resources of the Delaware River Basin without regard to political boundaries. Its members are the governors of the four Basin states – Delaware, New Jersey, New York and Pennsylvania – and the North Atlantic Division Commander of the U.S. Army Corps of Engineers, representing the Federal government. The DRBC is not subject to the requirements of the Delaware Administrative Procedure Act. The purpose of this notice is to advise the public that duly adopted regulations of the Commission have been filed with the State of Delaware in accordance with Section 14.2 of the Delaware River Basin Compact.

Summary: By Resolution No. 2010-13 on December 8, 2010, the Commission approved amendments to its Water Quality Regulations, Water Code and Comprehensive Plan updating the Commission's human health and aquatic life stream quality objectives (also called “water quality criteria”) for toxic pollutants in the Delaware Estuary (DRBC Water Quality Zones 2 through 5) and extended application of the criteria to Delaware Bay (DRBC Water Quality Zone 6).

Supplemental Information: Notice of the proposed amendments appeared in the Delaware Register of Regulations (14 DE Reg. 70-83 (08/01/2010)) on August 1, 2010, as well as in the Federal Register (75 FR 41106) on July 15, 2010, the New Jersey Register (42 N.J.R. 1702(a)) on August 2, 2010, the New York State Register (p. 6) on July 21, 2010, and the Pennsylvania Bulletin (40 Pa. B. 4208) on July 31, 2010. A public hearing was held on September 23, 2010 and written comments were accepted through October 1, 2010. The commission received two written submissions and no oral testimony on the proposed changes. The Commission made minor revisions to the proposed amendments in response to the comments received. A comment and response document setting forth the Commission’s responses and revisions in detail was approved by the Commission simultaneously with adoption of the final rule.

Resolution No. 2010-13, the text of the final rule, a copy of the comment and response document, and a basis and background document published simultaneously with the proposed rule are available on the Commission’s web site, at http://www.state.nj.us/drbc/toxics_info.htm.

Rule Text: DRBC Resolution No. 2010-13 amends Article 3 of the Water Code and Administrative Manual - Part III Water Quality Regulations as shown below. Additions to the Water Code and Water Quality Regulations are printed in **BOLD FACE** and deletions are printed in **[BOLD FACE ENCLOSED IN BRACKETS].** **BOLD FACE UNDERSCORE** indicates changes made in response to comments received during the public comment period. Asterisks indicate ellipsis of rule text retained without changes. [Editor’s instructions appear in normal text in brackets.]

Section 3.10.3 Stream Quality Objectives

C. Aquatic Life Objectives for Toxic Pollutants. It is the policy of the Commission to designate numerical stream quality objectives for the protection of aquatic life for the Delaware River Estuary **and Bay (Zones 2 through 6 [5])** which correspond to the designated uses of each zone. Aquatic life objectives for the protection from both acute and chronic effects are herein established on a pollutant-specific basis for:

D. Human Health Objectives for Toxic Pollutants. It is the policy of the Commission to designate numerical stream quality objectives for the protection of human health for the Delaware River Estuary **and Bay (Zones 2 through 6 [5])** which correspond to the designated uses of each zone. Stream quality objectives for protection from both carcinogenic and systemic effects are herein established on a pollutant-specific basis for:

3.10.3.D.6. A rate of ingestion of water of 2.0 liters per day is assumed in calculating objectives for river zones where the designated uses include public water supplies after reasonable treatment. A rate of ingestion of fish of **[6.5] 17.5** grams per day (equivalent to consuming a ½ pound portion every **[35] 13** days) is assumed in calculating freshwater **and marine** stream quality objectives for **the protection of** human health. **[A rate of ingestion of fish of 37 grams per day (equivalent to consuming a ½ pound portion every 6 days) is assumed in calculating marine stream quality objectives for human health.]**

3.10.3.D.8. Numerical criteria for toxic pollutants to protect the taste and odor of ingested water and fish shall be applied as stream quality objectives in **[the Estuary] Zones 2 - 6** if these criteria are more stringent than the calculated human health objectives for carcinogens or systemic toxicants.

Section 3.30 Interstate Streams – Tidal.

3.30.2 Zone 2.

[Amend Tables 3, 5, 6 and 7 following subsection 3.30.2 as indicated to update current criteria: remove and add compounds.]

TABLE 3: MAXIMUM CONTAMINANT LEVELS TO BE APPLIED AS HUMAN HEALTH STREAM QUALITY OBJECTIVES IN ZONES 2 AND 3 OF THE DELAWARE RIVER ESTUARY.

Parameter	Maximum Contaminant Level (µg/l)
Metals	
[Antimony]	**[6]**
Arsenic	**[50] 10**
Barium	**[2.0 mg/l] 2000**
Beryllium	4
[Cadmium]	[5]
Chromium (**trivalent) [(total)]**	100
Copper	**1300**
[Nickel]	**[100]**
Lead	**15**
Selenium	50
Pesticides/PCBs	
alpha-BHC	**0.2**
beta-BHC	**0.2**
gamma - BHC (Lindane)	**[0.2] 2**
2,4-Dichloro-phenoxyacetic acid (2,4-D)	**70**
Methoxychlor	**40**
Toxaphene	**3**
Dioxin (2,3,7,8-TCDD)	**0.00003**
2,4,5 Trichloro-phenoxypropionic acid (2,4,5-TP-Silvex)	**50**
Volatile Organic Compounds (VOCs)	
Benzene	**5**
Carbon Tetrachloride	**5**
1,2-Dichloroethane	**5**
1,1-Dichloroethylene	**7**
[1,2 - trans – Dichloroethene] 1,2 - trans - Dichloroethylene	100
Dichloromethane (methylene chloride)	**5**
[1,2 – Dichloropropane]	**[5]**
[Ethylbenzene]	**[700]**
Tetrachloroethylene (PCE)	**5**
Toluene	**1000**
Total Trihalomethanes	**[100] 80**
[1,2,4 – Trichlorobenzene]	**[70]**
1,1,1-Trichloroethane	**200**
1,1,2-Trichloroethane	**5**
Trichloroethylene	**5**
Vinyl Chloride	**2**
Polycyclic Aromatic Hydrocarbons (PAHs)	
Benzo(a)Pyrene	**0.2**
Other Compounds	
Asbestos	**7 million fibers/L**
Bis(2-Ethylhexyl) Phthalate	**6**
Fluoride	**4,000**
Nitrate	**10,000**
Pentachlorophenol	**1**
Dioxin (2,3,7,8-TCDD)	**0.00003**

TABLE 5: STREAM QUALITY OBJECTIVES FOR TOXIC POLLUTANTS FOR THE PROTECTION OF AQUATIC LIFE IN THE DELAWARE RIVER ESTUARY **AND BAY**.

Parameter	Freshwater Objectives (µg/l)		Marine Objectives (µg/l)	
	Acute	Chronic	Acute	Chronic
Metals **[(Values indicated are total recoverable; See Section 3.10.3.C.2. for form of metal)]**				
Aluminum[a,b]	750	87	**[-] NA**	**[-] NA**
Arsenic (trivalent) [c]	**[360] 340**	**[190] 150**	69	36
Cadmium [c]	**$[e^{(1.128*LN(Hardness)-3.828)}]$ 0.651*EXP(1.0166* LN(hardness)-3.924)**	**$[e^{(0.7852*LN(Hardness)-3.49)}]$ 0.651*EXP(0.7409* LN(hardness)-4.719)**	**[43] 40**	**[9.3] 8.8**
Chromium (trivalent) [c]	**$[e^{(0.8190*LN(Hardness)+3.688)}]$ 0.277*EXP(0.819* LN(hardness)+3.7256)**	**$[e^{(0.8190*LN(Hardness)+1.561)}]$ 0.277*EXP(0.819* LN(hardness)+0.6848)**	**[-] NA**	**[-] NA**
Chromium (hexavalent)	16	11	1,100	50
Copper [c]	**$[e^{(0.9422*LN(Hardness)-1.464)}]$ 0.908*EXP(0.9422* LN(hardness)-1.7)**	**$[e^{(0.8545*LN(Hardness)-1.465)}]$ 0.908*EXP(0.8545* LN(hardness)-1.702)**	**[5.3] 4.8**	**[3.4] 3.1**
Lead [c]	**[48] 38**	**[16] 5.4**	**[220] 210**	**[8.5] 8.1**
Mercury [c]	**[2.4] 1.4**	**[0.012] 0.77**	**[2.1] 1.8**	**[0.025] 0.94**
Nickel [c]	**$[e^{(0.846*LN(Hardness)+3.3612)}]$ 0.846*EXP(0.846* LN(hardness)+2.255)**	**$[e^{(0.846*LN(Hardness)+1.1645)}]$ 0.846*EXP(0.846* LN(hardness)+0.0584)**	**[75] 64**	**[8.3] 22**
Selenium[a]	20	5.0	**[300] 290**	**71**
Silver [c]	**$[e^{(1.72*LN(Hardness)-6.52)}]$ 0.85*EXP(1.72* LN(hardness)-6.59)**	**[-] NA**	**[2.3] 1.9**	**[-] NA**
Zinc [c]	**$[e^{(0.8473*LN(Hardness)+0.8604)}]$ 0.95*EXP(0.8473* LN(hardness)+0.884)**	**$[e^{(0.8473*LN(Hardness)+0.7614)}]$ 0.95*EXP(0.8473* LN(hardness)+0.884)**	**[95] 90**	**[86] 81**
Pesticides/PCBs				
Aldrin	**[1.5] 3**	**[-] NA**	**[0.65] 1.3**	**[-] NA**
gamma - BHC (Lindane)	**[1.0] 0.95**	**[0.08] NA**	**[0.08] 0.16**	**[-] NA**
Chlordane	**[1.2] 2.4**	0.0043	**[0.045] 0.09**	0.004
Chlorpyrifos (Dursban)	0.083	0.041	0.011	0.0056
DDT and metabolites (DDE & DDD) [d]	**[0.55] 1.1**	0.001	**[0.065] 0.13**	0.001
Dieldrin	**[1.25] 0.24**	**[0.0019] 0.056**	**[0.355] 0.71**	0.0019
Endosulfan [e]	**[0.11] 0.22**	0.056	**[0.017] 0.034**	0.0087
Endrin	**[0.09] 0.086**	**[0.0023] 0.036**	**[0.019] 0.037**	**0.0023**

Heptachlor	**[0.26] 0.52**	0.0038	**[0.027] 0.053**	0.0036
Heptachlor Epoxide	**0.52**	**0.0038**	**0.053**	**0.0036**
Parathion	0.065	0.013	**[-] NA**	**[-] NA**
PCBs (Total)	1.0	0.014	5.0	0.03
Toxaphene	0.73	0.0002	0.21	0.0002
Other Compounds				
Cyanide (**free**) **[(total)]**	22	5.2	**[1.0] [2.7] 1**	**[-] 1**
Pentachlorophenol	$e^{(1.005*pH-4.83)}$	$e^{(1.005*pH-5.29)}$	13	7.9
Indicator Parameters				
Whole Effluent Toxicity	0.3 Toxic Units $_{acute}$	1.0 Toxic Units $_{chronic}$	0.3 TU_a	1.0 TU_c

Footnotes to Table 5:

[a] Total recoverable criteria

[b] Aluminum criteria listed are restricted to waters with pH between 6.5 and 9.0.

[c] Dissolved criteria

[d] Criteria apply to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).

[e] Values were derived from data for endosulfan and are most appropriately applied to the sum of alpha-endosulfan and beta-endosulfan.

Criteria for cadmium, chromium (trivalent), copper, nickel, silver and zinc are hardness-dependent and are expressed as the dissolved form (see Section 3.10.3.C.2. on form of metal).

TABLE 6: STREAM QUALITY OBJECTIVES FOR CARCINOGENS FOR THE DELAWARE RIVER ESTUARY **AND BAY**.

PARAMETER	[EPA class]	FRESHWATER OBJECTIVES (µg/l)		MARINE OBJECTIVES (µg/l)
		FISH & WATER INGESTION	FISH INGESTION ONLY	FISH INGESTION ONLY
Metals				
Arsenic		* [0.017]	**NA**	**NA**
[Beryllium]		**[0.00767]**	**[0.132]**	**[0.0232]**
Pesticides/PCBs				
Aldrin	**[B2]**	**[0.00189] 0.000049**	**[0.0226] 0.000050**	**[0.00397] 0.000050**
Alpha – BHC	**[B2]**	**[0.00391] 0.0026**	**[0.0132] 0.0049**	**[0.00231] 0.0049**
beta – BHC	**[C]**	**0.0091**	**0.017**	**0.017**
Chlordane	**[B2]**	**[0.000575] 0.00080**	**[0.000588] 0.00081**	**[0.000104] 0.00081**
DDD	**[B2]**	**[0.00423] 0.00031**	**[0.00436] 0.00031**	**[0.000765] 0.00031**
DDE	**[B2]**	**[0.00554] 0.00022**	**[0.00585] 0.00022**	**[0.00103] 0.00022**
DDT	**[B2]**	**[0.000588] 0.00022**	**[0.000591] 0.00022**	**[0.000104] 0.00022**
Dieldrin	**[B2]**	**[0.000135] 0.000052**	**[0.000144] 0.000054**	**[0.0000253] 0.000054**
Heptachlor	**[B2]**	**[0.000208] 0.000079**	**[0.000214] 0.000079**	**[0.0000375] 0.000079**
Heptachlor Epoxide	**[B2]**	**[0.000198] 0.000039**	**[0.000208] 0.000039**	**[0.0000366] 0.000039**
PCBs (Total)	**[B2]**	0.0000444	0.0000448	0.0000079
Toxaphene	**[B2]**	**[0.000730] 0.00028**	**[0.000747] 0.00028**	**[0.000131] 0.00028**
Volatile Organic Compounds (VOCs)				
Acrylonitrile	**[B1]**	**[0.0591] 0.051**	**[0.665] 0.25**	**[0.117] 0.25**
Benzene	**[A]**	**[1.19] 0.61**	**[71.3] 14**	**[12.5] 14**
Benzidine	**[A]**	**[0.000118] 0.000086**	**[0.000535] 0.00020**	**[0.000094] 0.00020**
Bromoform	**[B2]**	**[4.31] 4.3**	**[164.0] 140**	**[28.9] 140**
Bromodichloromethane	**[B2]**	**[0.559] 0.55**	**[55.7] 17**	**[9.78] 17**
Carbon Tetrachloride	**[B2]**	**[0.254] 0.23**	**[4.42] 1.6**	**[0.776] 1.6**
Chlorodibromomethane	**[C]**	**[0.411] 0.40**	**[27.8] 13**	**[4.88] 13**
Chloroform	**[B2]**	**[5.67] 5.7**	**[471.0] 470**	**[82.7] 470**
3,3 – Dichlorobenzidine	**[B2]**	**[0.0386] 0.021**	**[0.0767] 0.028**	**[0.0135] 0.028**
1,2 – Dichloroethane	**[B2]**	**[0.383] 0.38**	**[98.6] 37**	**[17.3] 37**
[1,1 – Dichloroethene]	**[C]**	**[0.0573]**	**[3.20]**	**[0.562]**
1,2 – Dichloropropane	**[B2]**	**0.50**	**15**	**15**
1,3 – Dichloropropene	**[B2]**	**[87.0] 0.34**	**[14.1] 21**	**[2.48] 21**
Dichloromethane (Methylene chloride)	**[B2]**	**[4.65] ***	**[1,580] 590**	**[277] 590**
[Tetrachloroethene] Tetrachloroethylene	**[B2]**	**[0.80] 0.69**	**[8.85] 3.3**	**[1.55] 3.3**
[1,1,1,2 – Tetrachloroethane]	**[C]**	**[1.29]**	**[29.3]**	**[5.15]**

1,1,2,2 – Tetrachloroethane	**[C]**	**[0.172] 0.17**	**[10.8] 4.0**	**[1.89] 4.0**
1,1,2 – Trichloroethane	**[C]**	**[0.605] 0.59**	**[41.6] 16**	**[7.31] 16**
[Trichloroethene] Trichloroethylene	**[B2]**	**[2.70] 2.5**	**[80.7] 30**	**[14.2] 30**
Vinyl Chloride	**[A]**	**[2.00] 0.025**	**[525.0] 2.4**	**[92.9] 2.4**
Polycyclic Aromatic Hydrocarbons (PAHs)				
Benz[a]anthracene	**[B2]**	**[0.00171] 0.0038**	**[0.00177] 0.18**	**[0.00031] 0.18**
Benzo[b]fluoranthene	**[B2]**	**[0.000455] 0.038**	**[0.000460] 0.18**	**[0.000081]0.18**
Benzo[k]fluoranthene	**[B2]**	**[0.000280] 0.38**	**[0.000282] 1.8**	**[0.000049] 1.8**
Benzo[a]pyrene	**[B2]**	**[0.0000644] 0.0038**	**[0.0000653] 0.018**	**[0.0000115] 0.018**
Chrysene	**[B2]**	**[0.0214] 3.8**	**[0.0224] 18**	**[0.00394] 18**
Dibenz[a,h]anthracene	**[B2]**	**[0.0000552] 0.0038**	**[0.0000559] 0.018**	**[0.0000098] 0.018**
Indeno[1,2,3-cd]pyrene	**[B2]**	**[0.0000576] 0.038**	**[0.0000576] 0.18**	**[0.0000101] 0.18**
Other Compounds				
Bis (2-chloroethyl) ether	**[B2]**	**[0.0311] 0.03**	**[1.42] 0.53**	**[0.249] 0.53**
Bis (2-ethylhexyl) phthalate	**[B2]**	**[1.76] 1.2**	**[5.92] 2.2**	**[1.04] 2.2**
[Dinitrotoluene mixture (2,4 & 2,6)] 2,4 - Dinitrotoluene	**[B2]**	**[17.3] 0.11**	**[1420] 3.4**	**[249] 3.4**
1,2 – Diphenylhydrazine	**[B2]**	**[0.0405] 0.036**	**[0.541] 0.2**	**[0.095] 0.2**
Hexachlorobenzene	**[B2]**	**[0.000748] 0.00028**	**[0.000775] 0.00029**	**[0.000136] 0.00029**
Hexachlorobutadiene	**[C]**	**[0.445] 0.44**	**[49.7] 18**	**[8.72] 18**
Hexachloroethane	**[C]**	**[1.95] 1.4**	**[8.85] 3.3**	**[1.56] 3.3**
Isophorone	**[B2]**	**[36.3] 35**	**[2590] 960**	**[455] 960**
N-Nitrosodi-N-butylamine	**[B2]**	**0.0063**	**14**	**14**
N-Nitrosodi-N-methylamine	**[B2]**	**[0.000686] 0.00069**	**[8.12] 3.0**	**[1.43] 3.0**
N-Nitrosodiethylamine	**[B2]**	**0.0008**	**1.24**	**1.24**
N-Nitrosodi-N-phenylamine	**[B2]**	**[4.95] 3.3**	**[16.2] 6**	**[2.84] 6**
N-Nitrosodi-N-propylamine	**[B2]**	**[0.00498] 0.0050**	**[1.51] 0.51**	**[0.265] 0.51**
N-Nitrosopyrrolidine	**[B2]**	**0.016**	**34**	**34**
Pentachlorophenol	**[B2]**	**[0.282] 0.27**	**[8.16] 3.0**	**[1.43] 3.0**
Dioxin (2,3,7,8 – TCDD)	**[NA]**	**[1.3×10^{-8}] 0.000000005**	**[1.4×10^{-8}] 0.0000000051**	**[2.4×10^{-9}] 0.0000000051**
2,4,6 – Trichlorophenol	**[B2]**	**[2.14] 1.4**	**[6.53] 2.4**	**[1.15] 2.4**

* The MCL for this compound applies in Zones 2 and 3 and is listed in Table 3.

TABLE 7: STREAM QUALITY OBJECTIVES FOR SYSTEMIC TOXICANTS FOR THE DELAWARE RIVER ESTUARY **AND BAY**

PARAMETER	[EPA Class]	FRESHWATER OBJECTIVES (µg/l)		MARINE OBJECTIVES (µg/l)
		FISH & WATER INGESTION	FISH INGESTION ONLY	FISH INGESTION ONLY
Metals				
Antimony		**[14.0] 5.6**	**[4,310] 640**	**[757] 640**
Arsenic	**[A]**	**[9.19] ***	**[73.4] NA**	**[12.9] NA**
Beryllium	**[B2]**	**[165] ***	**[2,830] [42] 420**	**[498] [42] 420**
Cadmium		**[14.5] 3.4**	**[84.1] 16**	**[14.8] 16**
Chromium (trivalent)		**[33,000] ***	**[673,000] 380,000**	**[118,000] 380,000**
[Hexavalent] Chromium **(hexavalent)**	**[A]**	**[166] 92**	**[3,370] NA**	**[591] NA**
Chromium (Total)		**NA**	**750**	**750**
Mercury		**[0.144] 0.050**	**[0.144] 0.051**	**[0.144] 0.051**
Methylmercury		**0.3 mg/kg fish tissue**	**0.3 mg/kg fish tissue**	**0.3 mg/kg fish tissue**
Nickel		**[607] 500**	**[4,580] 1,700**	**[805] 1,700**
Selenium		**[100] 170**	**[2,020] 4,200**	**[355] 4,200**
Silver		**[175] 170**	**[108,000] 40,000**	**[18,900] 40,000**
Thallium		**[1.70] 0.24**	**[6.20] 0.47**	**[1.10] 0.47**
Zinc		**[9110] 7,400**	**[68700] 26,000**	**[12100] 26,000**
Pesticides/PCBs				
Aldrin	**[B2]**	**[0.96] 0.025**	**[11.5] 0.025**	**[2.03] 0.025**
gamma - BHC (Lindane)		**[7.38] 0.98**	**[24.9] 1.8**	**[4.37] 1.8**
Chlordane	**[B2]**	**[0.0448] 0.14**	**[0.0458] 0.14**	**[0.00805] 0.14**
DDT **and Metabolites (DDD and DDE)**	**[B2]**	**[0.100] 0.037**	**[0.100] 0.037**	**[0.0176] 0.037**
Dieldrin	**[B2]**	**[0.108] 0.041**	**[0.115] 0.043**	**[0.020] 0.043**
[Endosulfan]		**[111]**	**[239]**	**[42.0]**
alpha –Endosulfan		**62**	**89**	**89**
beta- Endosulfan		**62**	**89**	**89**
Endosulfan Sulfate		**62**	**89**	**89**
Endrin	**[D]**	**[0.755] 0.059**	**[0.814] 0.060**	**[0.143] 0.060**
Endrin Aldehyde		**0.29**	**0.30**	**0.30**
Heptachlor	**[B2]**	**[0.337] 0.18**	**[0.344] 0.18**	**[0.060] 0.18**
Heptachlor Epoxide	**[B2]**	**[0.0234] 0.0046**	**[0.0246] 0.0046**	**[0.00433] 0.0046**
Total PCBs	**[B2]**	0.00839	0.00849	0.00149
Volatile Organic Compounds (VOCs)				
Acrolein		**[320] 6.1**	**[780] 9.3**	**[137] 9.3**
Benzene		*****	**3,100**	**3,100**
Bromoform	**[B2]**	**[682] 650**	**[25,900] 9,600**	**[4,560]9,600**

Bromodichloromethane	**[B2]**	**[693] 680**	**[69,000] NA**	**[12,100] NA**
Dibromochloromethane	**[C]**	**[690] 680**	**[46,600] 21,000**	**[8,190] 21,000**
Carbon Tetrachloride	**[B2]**	**[23.1] ***	**[402] 150**	**[70.6] 150**
Chloroform	**[B2]**	**[346] 68**	**[28,700] 2,100**	**[5,050] 2,100**
Chlorobenzene	**[D]**	**[677] 130**	**[20,900] 1,600**	**[3,670] 1,600**
[1,1 – Dichloroethene] **1,1 – Dichloroethylene**	**[C]**	**[309] ***	**[17,300] 7,100**	**[3,040] 7,100**
[1,2 - trans – Dichloroethene] **1,2 - trans – Dichloroethylene**		**[696] 140**	**[136,000] 10,000**	**[23,900] 10,000**
1,3 – Dichloropropene	**[B2]**	**[10.4] 1,000**	**[1,690] 63,000**	**[297] 63,000**
Ethylbenzene		**[3,120] 530**	**[28,700] 2,100**	**[5,050] 2,100**
Methyl Bromide		**[49.0] 47**	**[N/A] 1,500**	**[N/A] 1,500**
Methylene Chloride	**[B2]**	**[2,090] ***	**[710,000] 260,000**	**[125,000] 260,000**
1,1,2 – Trichloroethane	**[C]**	**[138] ***	**[9,490] 3,600**	**[1,670] 3,600**
[Tetrachloroethene] **Tetrachloroethylene**		**[318] ***	**[3,520] 1,300**	**[618] 1,300**
[1,1,1,2 – Tetrachloroethane]	**[C]**	**[1,000]**	**[22,400]**	**[3,940]**
Toluene		**[6,760] 1,300**	**[201,000] 15,000**	**[35,400] 15,000**
Polycyclic Aromatic Hydrocarbons (PAHs)				
Anthracene	**[D]**	**[4,110] 8,300**	**[6,760] 40,000**	**[1,190] 40,000**
Fluoranthene		**[296] 130**	**[375] 140**	**[65.8] 140**
Fluorene	**[D]**	**[730] 1,100**	**[1,530] 5,300**	**[268] 5,300**
Pyrene	**[D]**	**[228] 830**	**[291] 4,000**	**[51.1] 4,000**
Other Compounds				
Acenaphthene		**[1,180] 670**	**[2,670] 990**	**[469] 990**
Benzidine	**[A]**	**[81.8] 59**	**[369] 140**	**[64.9] 140**
Bis (2-chloroisopropyl) ether		**[1,390] 1,400**	**[174,000] 65,000**	**[30,600] 65,000**
Bis (2-ethylhexyl) phthalate	**[B2]**	**[492] ***	**[1,660] 620**	**[291] 620**
Butylbenzyl phthalate	**[C]**	**[298] 1,500**	**[520] 1,900**	**[91.4] 1,900**
2 – Chloronaphthalene		**1,000**	**1,600**	**1,600**
2 – Chlorophenol		**[122] 81**	**[402] 150**	**[70.6] 150**
Cyanide		**140**	**140**	**140**
Dibutyl Phthalate	**[D]**	**[2,710] 2,000**	**[12,100] 4,500**	**[2,130] 4,500**
1,2 – Dichlorobenzene	**[D]**	**[2,670] 420**	**[17,400] 1,300**	**[3,060] 1,300**
1,3 – Dichlorobenzene	**[D]**	**[414] 420**	**[3,510] 1,300**	**[617] 1,300**
1,4 – Dichlorobenzene		**[419] 63**	**[3,870] 190**	**[677] 190**
2,4 – Dichlorophenol		**[92.7] 77**	**[794] 290**	**[139] 290**
Diethyl Phthalate	**[D]**	**[22,600] 17,000**	**[118,000] 44,000**	**[20,700] 44,000**

Dimethyl Phthalate	**[D]**	**[313,000] 270,000**	**[2,990,000] 1,100,000**	**[526,000] 1,100,000**
2,4 – Dimethylphenol		**[536] 380**	**[2,300] 850**	**[403] 850**
2,4 – Dinitrophenol		**[70] 69**	**[14,300] 5,300**	**[2,500] 5,300**
2,4 – Dinitrotoluene		**[69.2] 68**	**[5670] 2,100**	**[996] 2,100**
Hexachlorobenzene	**[B2]**	**[0.958] 0.35**	**[0.991] 0.36**	**[0.174] 0.36**
[Hexachlorobutadiene]	**[C]**	**[69.4]**	**[7,750]**	**[1,360]**
Hexachlorocyclopentadiene		**[242] 40**	**[17,400] 1,100**	**[3,050] 1,100**
Hexachloroethane	**[C]**	**[27.3] 20**	**[124] 46**	**[21.7] 46**
Isophorone	**[C]**	**[6,900] 6,700**	**[492,000] 180,000**	**[86,400] 180,000**
2-Methyl-4,6-dinitrophenol		**13**	**280**	**280**
Nitrobenzene	**[D]**	**[17.3] 17**	**[1,860] 690**	**[327] 690**
Pentachlorobenzene		**1.4**	**1.5**	**1.5**
Pentachlorophenol		**[1,010] ***	**[29,400] 11,000**	**[5,160] 11,000**
Phenol		**[20,900] 10,000**	**[4,620,000] 860,000**	**[811,000] 860,000**
1,2,4,5-Tetrachlorobenzene		**0.97**	**1.1**	**1.1**
1,2,4 – Trichlorobenzene	**[D]**	**[255] 35**	**[945] 70**	**[166] 70**
2,4,5-Trichlorophenol		**1,800**	**3,600**	**3,600**
Vinyl Chloride		*****	**10,000**	**10,000**

* The MCL for this compound applies in Zones 2 and 3 and is listed in Table 3.

3.30.6 Zone 6.

[Add the following text immediately following sub-section 3.30.6 C.10. and preceding sub-section 3.30.6 D.]

11. Toxic Pollutants.

a. Applicable criteria to protect the taste and odor of ingested water and fish are presented in Table 4.

b. Applicable marine stream quality objectives for the protection of aquatic life are presented in Table 5.

c. Applicable marine stream quality objectives for the protection of human health are presented in Tables 6 and 7.

Dated: April 21, 2011
Pamela M. Bush, Esquire
Commission Secretary