

**ANNEX A**

TITLE 25. ENVIRONMENTAL PROTECTION  
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Subpart C. PROTECTION OF NATURAL RESOURCES  
ARTICLE II. WATER RESOURCES

**CHAPTER 16. WATER QUALITY TOXICS MANAGEMENT STRATEGY—  
STATEMENT OF POLICY**

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**Subchapter A. GUIDELINES FOR DEVELOPMENT OF CRITERIA  
FOR TOXIC SUBSTANCES AND WATER QUALITY CRITERIA  
FOR TOXIC SUBSTANCES**

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**APPENDIX A**

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**TABLE 1A**

**SITE-SPECIFIC WATER QUALITY CRITERIA FOR TOXIC SUBSTANCES**

The following table contains water quality criteria that were developed based on a need for a site-specific water quality criterion, and according to the guidelines for criteria development, as contained in this chapter. The sources the Department of Environmental Protection (Department) uses to obtain relevant risk assessment values for these criteria include, but is not limited to, United States Environmental Protection Agency agency-wide supported data systems such as Integrated Risk Information System (IRIS) and ECOTOX; the Great Lakes' Tier II [aquatic] **aquatic** life criteria guidelines; and other nationally developed criteria as reviewed and approved by the Department for Statewide use. A criterion placed in this table will remain a site-specific criterion as originally developed and be incorporated into the appropriate portion of § § 93.9a—93.9z that relates to “exceptions to specific criteria” unless, during rulemaking, it is determined that the same criteria has general Statewide applicability.

		<i>Fish and [Aquatic] Aquatic Life Criteria</i>					
		Criteria Continuous	Criteria Maximum	Criteria Human Health			
PP Chemical NO Name	CAS Number	Concentrations [(ug/l)] <b>(ug/L)</b>	Concentration [(ug/l)] <b>(ug/L)</b>	[(ug/l)] <b>(ug/L)</b>	Health Effect	Drainage List	Water Body/County
[- 1,4 Dioxane	123911	103000	515000	3.0	CRL	F	West Branch Perkiomen Creek, Berks

[-	[Acrylamide	79061	N/A	N/A	.008	CRL	S	County Stump Creek, Henderson Township, Jefferson County]
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**Acronyms and Footnotes to Table 1A**

CAS—Chemical Abstract Service number

CRL—Cancer risk level at  $1 \times 10^{-6}$

H—Threshold effect human health criterion; incorporates additional uncertainty factor for some Group C carcinogens.

ln [H]—Natural Logarithm of the Hardness of stream as mg/l CaCO<sub>3</sub>

ug/L—Micrograms per liter

N/A—Criterion not developed

PP NO—Priority Pollutant Number

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**TABLE 2A**

APPROVED EPA AND DEP ACCREDITED ANALYTICAL METHODS AND  
DETECTION LIMITS: INORGANICS

Parameter (CAS)	Method Number (Description) *Source	Detection Limit (MDL) ( <u>µg/[L]</u> )
*****		
11M	SILVER (07440224)	
	3111 B or C (AA, flame)	10
	3113 B (AA, furnace)	0.2
	200.7 (ICP/AES)	2
	200.8 (ICP/MS)	0.1
	200.9 (STGFAA)	0.6
	—* <sup>3</sup> (DCP)	NA
	<u>200.7 (ICP/AES)</u>	<u>0.01</u>
=	<u>STRONTIUM</u> <u>(07440246)</u>	
	<u>200.8 (ICP/MS)</u>	<u>2.0</u>
	<u>6010B (ICP/AES)</u>	<u>0.01</u>
	<u>6020(ICP/MS)</u>	<u>1.0</u>

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TABLE 2B

APPROVED EPA **AND DEP ACCREDITED** ANALYTICAL METHODS AND  
DETECTION LIMITS: ORGANICS

Parameter (CAS)	Method Number (Description) *Source	Detection Limit (MDL) ( $\mu\text{g}/\text{I} \text{L}$ )
*****		
=	<b><u>BENZENE</u></b> <b><u>METADISULFONIC ACID</u></b> <b><u>(00098486)</u></b>	<b><u>OR 357A Test</u></b> <b><u>America, HPLC/UV</u></b> <b><u>50</u></b> <b><u>or LC/MS/MS</u></b>
=	<b><u>BENZENE</u></b> <b><u>MONOSULFONIC ACID</u></b> <b><u>(00098113)</u></b>	<b><u>OR 357A Test</u></b> <b><u>America, HPLC/UV</u></b> <b><u>50</u></b> <b><u>or LC/MS/MS</u></b>
1A	2-CHLOROPHENOL (00095578)	604—GC/FID 0.31 604—GC/ECD 0.58 625—GC/MS 3.3 1625B— 10 GC/MS(isotope)
*****		
7A	4-NITROPHENOL (00100027)	604—GC/FID 2.8 604—GC/ECD 0.70 625—GC/MS 2.4 1625B— 50 GC/MS(isotope)
=	<b><u>NONYLPHENOL</u></b> <b><u>(00104405)</u></b>	<b><u>7065-06M—GC/MS</u></b> <b><u>D7485-09 –</u></b> <b><u>2.0</u></b> <b><u>LC/LC/TANDEM</u></b> <b><u>.033</u></b> <b><u>MS</u></b>
*****		
10A	PHENOL (00108952)	604—GC/FID 0.14 604—GC/ECD 2.2 625—GC/MS 1.5 1625B— 10 GC/MS(isotope)

=	<u>P-PHENOL SULFONIC</u>	<u>OR 357A Test</u>	
	<u>ACID</u>	<u>America, HPLC/UV</u>	<u>50</u>
	<u>(00098679)</u>	<u>or LC/MS/MS</u>	
=	<u>RESORCINOL</u>	<u>8270D—GC/MS</u>	<u>100</u>
	<u>(01084603)</u>		
	*****		
3V	BENZENE	602—GC/PID	0.20
	(00071432)	624—GC/MS	4.4
		1624B—	10
		GC/MS(isotope)	
=	<u>BENZYL CHLORIDE</u>	<u>8021B—GC</u>	<u>1.0</u>
	<u>(00100447)</u>	<u>8260B—GC/MS</u>	<u>.005-5.0</u>
5V	BROMOFORM	601—GC/Hal.	0.20
	(00075252)	624—GC/MS	4.7
		1624B—	10
		GC/MS(isotope)	
=	<u>2-BUTOXYETHANOL</u>	<u>EPA R5/6LC –</u>	
	<u>(00111762)</u>	<u>LC/MS/MS</u>	<u>125</u>
		<u>(DIRECT INJECT)</u>	
	*****		
26V	1,2-trans-	601—GC/Hal.	0.10
	DICHLOROETHYLENE	624—GC/MS	1.6
	(00156605)	1624B—	10
		GC/MS(isotope)	
=	<u>1,2-cis-</u>	<u>601—GC/Hal.</u>	<u>0.10</u>
	<u>DICHLOROETHYLENE</u>	<u>624—GC/MS</u>	<u>1.6</u>
	<u>(00156592)</u>	<u>1624B—</u>	<u>10</u>
		<u>GC/MS(isotope)</u>	
	*****		
29V	TRICHLOROETHYLENE	601—GC/Hal.	0.12
	(00079016)	624—GC/MS	1.9
		1624B—	10
		GC/MS(isotope)	
=	<u>1,2,4-</u>	<u>524.2 – GC/MS</u>	<u>0.5</u>
	<u>TRIMETHYLBENZENE</u>	<u>624 – GC/MS</u>	<u>1.0</u>
	<u>(00095636)</u>	<u>8021B—GC</u>	<u>1.0</u>
		<u>8260B—GC/MS</u>	<u>2.0</u>
=	<u>1,3,5-</u>	<u>524.2 – GC/MS</u>	<u>0.5</u>

	<u>TRIMETHYLBENZENE</u>	<u>624 – GC/MS</u>	<u>1.0</u>
	<u>(00108678)</u>	<u>8021B—GC</u>	<u>1.0</u>
		<u>8260B—GC/MS</u>	<u>2.0</u>

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		610—GC/FID	NA
2B	ACENAPHTHYLENE	610—HPLC	2.3
	(00208968)	625—GC/MS	3.5
		1625B—	10
		GC/MS(isotope)	

=	<u>ACRYLAMIDE</u>	<u>8032A (GC)</u>	<u>.032</u>
	<u>(00079061)</u>	<u>8316 (HPLC)</u>	<u>10</u>

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		610—GC/FID	NA
18B	CHRYSENE	610—HPLC	0.15
	(00218019)	625—GC/MS	2.5
		1625B—	10
		GC/MS(isotope)	

=	<u>CYCLOHEXYLAMINE</u>	<u>8270B—GC/MS</u>	<u>.01</u>
	<u>(00108918)</u>		

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		606—GC/ECD	3.0
29B	DI-N-OCTYL PHTHALATE	625—GC/MS	2.5
	(00117840)	1625B—	10
		GC/MS(isotope)	

=	<u>1,4-DIOXANE</u>	<u>624—GC/MS</u>	<u>1.0</u>
	<u>(00123911)</u>	<u>625—GC/MS</u>	<u>5.0</u>
		<u>8260B —GC/MS</u>	<u>0.1</u>
		<u>8270L—GC/MS</u>	<u>0.2</u>

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