

US EPA ARCHIVE DOCUMENT

# **APPENDIX K**

## **TOXIC PARAMETER LIST**

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The follow lists are the toxic parameters and associated sample type and analytical method. Also included are portions of the prescribed methods to provide the MDL associated with the applicable analytical method.

Discharge Parameter	Sample Type	Analytical Method
<i>Metals</i>		
Antimony	24 hr composite	GF/AA ICP-MS
Arsenic	24 hr composite	GF/AA ICP-MS
Beryllium	24 hr composite	GF/AA ICP-MS
Cadmium	24 hr composite	GF/AA ICP-MS
Chromium	24 hr composite	GF/AA ICP-MS
Copper	24 hr composite	GF/AA ICP-MS
Lead	24 hr composite	GF/AA ICP-MS
Mercury	24 hr composite	CV/AA
Nickel	24 hr composite	GF/AA ICP-MS
Selenium	24 hr composite	GF/AA GF/HYDRIDE ICP-MS
Silver	24 hr composite	GF/AA ICP-MS
Thallium	24 hr composite	GF/AA ICP-MS
Zinc	24 hr composite	GF/AA ICP-MS
<i>Pesticides</i>		
Aldrin	24 hr composite	608

Chlordane	24 hr composite	608
Dieldrin	24 hr composite	608
4,4'-DDT	24 hr composite	608
4,4'-DDE	24 hr composite	608
4,4'-DDD	24 hr composite	608
Discharge Parameter	Sample Type	Analytical Method
<i>Pesticides</i>		
Alpha Endosulfan	24 hr composite	608
Beta Endosulfan	24 hr composite	608
Endosulfan Sulfate	24 hr composite	608
Endrin	24 hr composite	608
Endrin Aldehyde	24 hr composite	608
Heptachlor	24 hr composite	608
Heptachlor Epoxide	24 hr composite	608
Alpha BHC	24 hr composite	608
Beta BHC	24 hr composite	608
Delta BHC	24 hr composite	608
Gamma BHC (Lindane)	24 hr composite	608
Toxaphene	24 hr composite	608
PCB 1016	24 hr composite	608
PCB 1221	24 hr composite	608
PCB 1232	24 hr composite	608
PCB 1242	24 hr composite	608
PCB 1248	24 hr composite	608
PCB 1254	24 hr composite	608
PCB 1260	24 hr composite	608
<i>Base/Neutral Extractables</i>		
Acenaphthene	24 hr composite	625
Acenaphthylene	24 hr composite	625
Anthracene	24 hr composite	625
Benzidine	24 hr composite	625

Benzo(a)Anthracene	24 hr composite	625
Benzo(a)Pyrene	24 hr composite	625
Benzo(b)Fluoranthene	24 hr composite	625
Discharge Parameter	Sample Type	Analytical Method
<i>Base/Neutral Extractables</i>		
Benzo(g,h,i)Perylene	24 hr composite	625
Benzo(k)Fluoranthene	24 hr composite	625
Bis(2-Chloroethoxy Methane	24 hr composite	625
Bis(2-Chloroethyl)Ether	24 hr composite	625
Bis(2-Chloroisopropyl)Ether	24 hr composite	625
Bis(2-Ethylhexyl)Phthalate	24 hr composite	625
4-Bromophenyl Phenyl Ether	24 hr composite	625
Butyl Benzyl Phthalate	24 hr composite	625
2-Chloronaphthalene	24 hr composite	625
Chrysene	24 hr composite	625
Dibenzo(a,h)Anthracene	24 hr composite	625
4-Chlorophenyl Phenyl Ether	24 hr composite	625
1,2-Dichlorobenzene	24 hr composite	625
1,3-Dichlorobenzene	24 hr composite	625
1,4-Dichlorobenzene	24 hr composite	625
3,3-Dichlorobenzidine	24 hr composite	625
Diethyl Phthalate	24 hr composite	625
Dimethyl Phthalate	24 hr composite	625
Di-N-Butyl Phthalate	24 hr composite	625
2,4-Dinitrotoluene	24 hr composite	625
2,6-Dinitrotoluene	24 hr composite	625
1,2-Diphenylhydrazine (as Azobenzene)	24 hr composite	625
Di-N-Octyl Phthalate	24 hr composite	625
Fluoranthene	24 hr composite	625
Fluorene	24 hr composite	625

Hexachlorobenzene	24 hr composite	625
Hexachlorobutadiene	24 hr composite	625
Discharge Parameter	Sample Type	Analytical Method
<i>Base/Neutral Extractables</i>		
Hexachlorocyclopentadiene	24 hr composite	625
Hexachloroethane	24 hr composite	625
Indeno(1,2,3-cd)Pyrene	24 hr composite	625
Isophorone	24 hr composite	625
Naphthalene	24 hr composite	625
Nitrobenzene	24 hr composite	625
N-Nitrosodimethylamine	24 hr composite	625
N-Nitrosodi-N-Propylamine	24 hr composite	625
N-Nitrosodiphenylamine	24 hr composite	625
Phenanthrene	24 hr composite	625
Pyrene	24 hr composite	625
1,2,4-Trichlorobenzene	24 hr composite	625
<i>Acid Extractables</i>		
2-Chlorophenol	24 hr composite	625
2,4-Dichlorophenol	24 hr composite	625
2,4-Dimethylphenol	24 hr composite	625
4,6-Dinitro-O-Cresol	24 hr composite	625
2,4-Dinitrophenol	24 hr composite	625
2-Nitrophenol	24 hr composite	625
4-Nitrophenol	24 hr composite	625
P-Chloro-M-Cresol	24 hr composite	625
Pentachlorophenol	24 hr composite	625
Phenol	24 hr composite	625
2,4, 6-Trichlorophenol	24 hr composite	625
<i>Volatile Organics</i>		
Acrolein	grab	603
Acrylonitrile	grab	603

Discharge Parameter	Sample Type	Analytical Method
<b><i>Volatile Organics</i></b>		
Benzene	grab	601/602/624
Bromoform	grab	601/602/624
Carbon Tetrachloride	grab	601/602/624
Chlorobenzene	grab	601/602/624
Chlorodibromomethane	grab	601/602/624
Chloroethane	grab	601/602/624
2-Chloroethyl Vinyl Ether	grab	601/602/624
Chloroform	grab	601/602/624
Dichlorobromomethane	grab	601/602/624
1,1-Dichloroethane	grab	601/602/624
1,2-Dichloroethane	grab	601/602/624
1,1-Dichloroethylene	grab	601/602/624
1,2-Dichloropropane	grab	601/602/624
1,3-Dichloropropylene	grab	601/602/624
Ethylbenzene	grab	601/602/624
Methyl Bromide	grab	601/602/624
Methyl Chloride	grab	601/602/624
Methylene Chloride	grab	601/602/624
1,1,2,2-Tetrachloroethane	grab	601/602/624
Tetrachloroethylene	grab	601/602/624
Toluene	grab	601/602/624
1,2-Trans-Dichloroethylene	grab	601/602/624
1,1,1-Trichloroethane	grab	601/602/624
1,1,2-Trichloroethane	grab	601/602/624
Trichloroethylene	grab	601/602/624
Vinyl Chloride	grab	601/602/624
Discharge Parameter	Sample Type	Analytical Method
<b><i>Miscellaneous</i></b>		

Cyanide	grab	335.2/335.3
Asbestos (not required unless requested)	24 hr composite	microscopy
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	24 hr composite	613/8280
<i>301(h) Pesticides</i>		
Demeton	24 hr composite	614
Guthion	24 hr composite	614
Parathion	24 hr composite	614
Malathion	24 hr composite	614
Mirex	24 hr composite	608
Methoxychlor	24 hr composite	608

Fish tissue.

<u>Sediment Chemistry Parameter (Units)</u>
<u>Grain size (phi)</u>
<u>Total organic carbon (%)</u>
<u>Oxidation-reduction potential (EH; mv)</u>
<u>Total nitrogen (mg/kg)</u>
<u>Acid volatile sulfides (mg/kg)</u>
<u>Metals (mg/kg)</u>
<u>Aluminum</u>
<u>Beryllium</u>
<u>Cadmium</u>
<u>Chromium</u>
<u>Copper</u>
<u>Iron</u>
<u>Lead</u>
<u>Nickel</u>
<u>Selenium</u>
<u>Silver</u>
<u>Zinc</u>
<u>Sediment Chemistry and Fish Tissue Parameter (Units)</u>



<u>Metals (mg/kg)</u>	
<u>Arsenic</u>	
<u>Mercury</u>	
<u>DDTs (ug/kg)</u>	
<u>4,4'-DDT</u>	<u>2,4'-DDD</u>
<u>2,4'-DDT</u>	<u>4,4'-DDE</u>
<u>4,4'-DDD</u>	<u>2,4'-DDE</u>
<u>Chlorinated pesticides other than DDT (ug/kg)</u>	
<u>Aldrin</u>	<u>Heptachlor epoxide</u>
<u>Alpha-Chlordane</u>	<u>Hexachlorobenzene</u>
<u>Sediment Chemistry and Fish Tissue Parameter (Units)</u>	
<u>Chlorinated pesticides other than DDT (ug/kg)</u>	
<u>Trans-Nonachlor</u>	<u>Lindane (gamma-BHC)</u>
<u>Dieldrin</u>	<u>Mirex</u>
<u>Heptachlor</u>	<u>Endrin</u>
<u>PCB Congeners (PCB No.) (ug/kg)</u>	
<u>8</u>	<u>128</u>
<u>18</u>	<u>138</u>
<u>28</u>	<u>149</u>
<u>37</u>	<u>151</u>
<u>44</u>	<u>153</u>
<u>49</u>	<u>156</u>
<u>52</u>	<u>157</u>
<u>66</u>	<u>158</u>
<u>70</u>	<u>167</u>
<u>74</u>	<u>168</u>
<u>77</u>	<u>169</u>
<u>81</u>	<u>170</u>
<u>87</u>	<u>177</u>
<u>99</u>	<u>180</u>
<u>101</u>	<u>183</u>
<u>105</u>	<u>187</u>
<u>110</u>	<u>189</u>

<u>114</u>	<u>194</u>
<u>118</u>	<u>195</u>
<u>119</u>	<u>201</u>
<u>123</u>	<u>206</u>
<u>126</u>	<u>209</u>
<u>Polycyclic Aromatic Hydrocarbons (PAHs) (ug/kg)</u>	
<u>Acenaphthene</u>	<u>Naphthalene</u>
<u>Sediment Chemistry and Fish Tissue Parameter (Units)</u>	
<u>Polycyclic Aromatic Hydrocarbons (PAHs) (ug/kg)</u>	
<u>Anthracene</u>	<u>Perylene</u>
<u>Benz(a)anthracene</u>	<u>Phenanthrene</u>
<u>Benzo(e)pyrene</u>	<u>Pyrene</u>
<u>Biphenyl</u>	<u>Benzo(a)pyrene</u>
<u>Chrysene</u>	<u>Benzo(b)fluoranthene</u>
<u>Dibenzo(a,h)anthracene</u>	<u>Acenaphthene</u>
<u>2,6-dimethylnaphthalene</u>	<u>Benzo(k)fluoranthene</u>
<u>Fluoranthene</u>	<u>Benzo(g,h,i)perylene</u>
<u>C<sub>1</sub>-Fluoranthene</u>	<u>Indeno(1,2,3-c,d)pyrene</u>
<u>Fluorene</u>	<u>2,3,5-trimethylnaphthalene</u>
<u>2-methylphenanthrene</u>	
<u>Fish Tissue Parameter (Units)</u>	
<u>Total lipid (%)</u>	