Application for Environmental Laboratory Certification
Office of Environmental Laboratory Certification

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COMPLETE AND SUBMIT ONLY THE APPLICABLE PAGES FOR CERTIFICATION

A. Purpose of Application: Check one and complete the information.

☐ Initial Certification (New Lab) EPA Lab Code ___ ___ ___ ___ ___ ___ ___

☐ Additional Parameter Certification Assigned S.C. Laboratory I.D. # ___ ___ ___ ___ ___

☐ PT Recertification (Due to PT Failure) Certificate # (Ex: 001, 002, etc.) ___ ___ ___

☐ Recertification of Entire Lab (Lab Previously Certified) – – Old SC Laboratory I.D. # ___ ___ ___ ___ ___

☐ Change in Certifying Authority

B. Type of Laboratory

☐ Commercial ☐ Federal ☐ Industrial ☐ Mobile ☐ Municipal ☐ State

C. Laboratory Name:

D. Legal Company Name: Name as registered with the South Carolina Secretary of State's Office.

E. Laboratory's Federal Employee Tax ID Number (FEIN): ___ ___ -- ___ ___ ___ ___ ___ ___ ___

Is the FEIN assigned to the Company listed in **D.**?_____ If not, list Parent Company in **F.** below.

F. Parent Company Name: If different from legal company name above, enter the name of the parent company that owns the laboratory.

G. Laboratory Mailing Address:

(P.O. Box or Number and Street)

(City) (State) (Zip Code)

H. Laboratory Business (Physical) Address:

(Number and Street)

(City) (State) (Zip Code) (County Code)

I. Laboratory Telephone Number: **Laboratory FAX Number:**

J. Laboratory Billing Address (for Certification Fees):

(Billing Name)

(P.O. Box or Number and Street)

(City) (State) (Zip Code)

K. Laboratory E-mail Address:

L. Parent Company Business (Physical) Address:

(Number and Street)

(City) (State) (Zip Code)

M. Parent Company Telephone Number:

N. Out-of-State Laboratories Only: Only one State Certifying Authority can be designated for each program below and the State Certifying Authority must have performed an on-site laboratory evaluation.

Safe Drinking Water Act:
Name of State Certifying Authority:_____ Expiration Date: _____

Clean Water Act:
Name of State Certifying Authority:_____ Expiration Date: _____

Solid and Hazardous Waste:
Name of State Certifying Authority:_____ Expiration Date: _____

O. Laboratory Director: (Primary Contact) - Designate the person responsible for the laboratory operations. **Attach a resume´ and/or qualifications**. **A laboratory director designation letter must accompany the application if not already on file.**

Name and Title

Telephone Number & Ext Mobile Number E-Mail Address:

Education:
Name of Institution: _____

Degree: _____ Major Field: _____

Certificates or Registrations Held: _____

Issuing Agency: _____ Date of Issue:_____

Experience (related to laboratory analysis):_____

_____

_____

P. Quality Assurance Officer or General Certification Contact Person for Laboratory:

Name and Title

Telephone Number & Ext | Mobile Number | E-Mail Address:

Q. Laboratory Personnel: List all personnel involved in the laboratory operations. Please make copies of this form for additional personnel. Resumes may be attached.

Name: _____ **Position Held:** _____

Education and Experience: _____

License or Registration: _____

Primary Responsibilities in the Laboratory: _____

Name: _____ **Position Held:** _____

Education and Experience: _____

License or Registration: _____

Primary Responsibilities in the Laboratory: _____

Name: _____ **Position Held:** _____

Education and Experience: _____

License or Registration: _____

Primary Responsibilities in the Laboratory: _____

Name: _____ **Position Held:** _____

Education and Experience: _____

License or Registration: _____

Primary Responsibilities in the Laboratory: _____

R. Safe Drinking Water Act Methodology:

Disinfection By-Products: Circle only the EPA-approved methodology that the laboratory is seeking certification to Perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Bromate	300.1 (1987) 302 (2009) 317.0[45] (2001) 326.0[45] (2002) 321.8[45,46] (1987) 557 (2009)		
Bromide	300.0 (1993) 300.1 (1987)		
Chlorite (Monthly/Daily)[11]	300.0 (1993) 300.1 (1997) 317.0 (2001) 326.0 (2002) 327.0 (2005)	SM 4500-ClO_2 E-2011[11]	
UV_{254} [49]	415.3 (2009)	SM 5910 B-2011	

Inorganic-Demand: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Total Organic Carbon/ Dissolved Organic Carbon (TOC/DOC)[47,48]	415.3 (2009)	SM 5310 B-2011 SM 5310 C-2011 SM 5310 D-2011	

Inorganic Mineral: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Alkalinity		SM 2320 B-2011	
Calcium-Hardness		SM 3500-Ca B-2011	
Chloride	300.0 (1993) 300.1 (1997)	SM 4110 B-2011 SM 4500-Cl^- B-2011 SM 4500-Cl^- D-2011	
Fluoride	300.0 (1993) 300.1 (1997)	SM 4110 B-2011 SM 4500-F^- B,D-2011 SM 4500-F^- C-2011 SM 4500-F^- E-2011	
Hydrogen-Ion Concentration (pH)	150.1 (1983) 150.2 (1983)	SM 4500 H^+ B-2011	
Specific Conductance		SM 2510 B-2011	
Sulfate	300.0 (1993) 300.1 (1997) 375.2 (1993)	SM 4110 B-2011 SM 4500-SO_4^{2-} C-2011 SM 4500-SO_4^{2-} D-2011 SM 4500-SO_4^{2-} E-2011 SM 4500-SO_4^{2-} F-2011	

R. Safe Drinking Water Act Methodology:

Inorganic-Miscellaneous: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Asbestos	100.1 (1983) 100.2 (1994)		
Chlorine Dioxide	327.0 (2003)	SM 4500-ClO_2 C-2011[8] SM 4500-ClO_2 E-2011	
Color - Visual - Spectrophotometric (Plat. Cobalt)		SM 2120 B-2011	NCASI-71.01-TB803 (2000)[9]
Cyanide,Total (Screening)[31] (Manual Distillation Required)	335.4 (1993)	SM 4500-CN^- C-2011	10-204-00-1-X (Rev. 2.1, 2000) OIA-1677[32]
	335.4 (1993)	SM 4500-CN^- E-2011 SM 4500-CN^- F-2011 SM 4500-CN^- G-2011[31]	
Odor		SM 2150 B-2011	
Ozone		SM 4500-O_3 B-2011	
Residual Chlorine		SM 4500-Cl D-2011 SM 4500-Cl E-2011 SM 4500-Cl F-2011 SM 4500-Cl G-2011 SM 4500-Cl I-2011	
Surfactants (MBAS)		SM 5540 C-2011	
Temperature		SM 2550 B-2010	
Turbidity – 90° Nephelometry (Tungsten Lamp)	180.1 (1993)	SM 2130 B-2011	
Turbidity – 360° Nephelometry (Laser)			Hach 10258 (Rev. 1.0, 2016)

Inorganic – Nutrient: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Nitrate-Nitrogen	300.0 (1993) 300.1 (1997) 353.2 (1993)	SM 4110 B-2011 SM 4500-NO_3^- F-2011 SM 4500-NO_3^- E-2011 SM 4500-NO_3^- D-2011	
Nitrate-Nitrite (NO_3 + NO_2)	300.0 (1993) 300.1 (1997) 353.2 (1993)	SM 4110 B-2011 SM 4500-NO_3^- F-2011 SM 4500-NO_3^- E-2011	
Nitrite-Nitrogen	300.0 (1993) 300.1 (1997) 353.2 (1993)	SM 4110 B-2011 SM 4500-NO_3^- F-2011 SM 4500-NO_3^- E-2011 SM 4500-NO_2^- B-2011	
Orthophosphate	300.0 (1993) 300.1 (1997) 365.1 (1993)	SM 4110 B-2011 SM 4500-P F-2011 SM 4500-P E-2011	
Phosphorus	300.0 (1993) 365.1 (1993) 365.2 (1971) 365.3 (1978)	SM 4110 B-2011 SM 4500-P F-2011 SM 4500-P E-2011	

R. Safe Drinking Water Act Methodology:

Inorganic – Trace Metal: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	GFAA/ Platform	GFAA/ Furnace	ICP		ICP/ MS	Other	
	EPA[1]	SM[1]	EPA[1]	SM[1]	EPA[1]	EPA[1]	SM[1]
Aluminum	200.9 (1994)	3113 B-2010	200.7 (1994)	3120 B-2011	200.8 (1994)		3111 D-2011
Antimony	200.9 (1994)	3113 B-2010			200.8 (1994)		
Arsenic	200.9 (1994)	3113 B-2010			200.8 (1994)		
Barium		3113 B-2010	200.7 (1994)	3120 B-2011	200.8 (1994)		3111 D-2011
Beryllium	200.9 (1994)	3113 B-2010	200.7 (1994)	3120 B-2011	200.8 (1994)		
Cadmium	200.9 (1994)	3113 B-2010	200.7 (1994)		200.8 (1994)		
Calcium			200.7 (1994)	3120 B-2011			3111 B-2011
Chromium	200.9 (1994)	3113 B-2010	200.7 (1994)	3120 B-2011	200.8 (1994)		
Copper	200.9 (1994)	3113 B-2010	200.7 (1994)	3120 B-2011	200.8 (1994)		3111 B-2011
Iron	200.9 (1994)	3113 B-2010	200.7 (1994)	3120 B-2011			3111 B-2011
Lead	200.9 (1994)	3113 B-2010			200.8 (1994)		
Magnesium			200.7 (1994)	3120 B-2011			3111 B-2011
Manganese	200.9 (1994)	3113 B-2010	200.7 (1994)	3120 B-2011	200.8 (1994)		3111 B-2011
Mercury					200.8 (1994)	245.1 (1983) 245.2 (1983)	3112 B-2011
Nickel	200.9 (1994)	3113 B-2010	200.7 (1994)	3120 B-2011	200.8 (1994)		3111 B-2011
Selenium	200.9 (1994)	3113 B-2010			200.8 (1994)		
Silica			200.7 (1994)	3120 B-2011			4500 SiO_2 C-2011 4500 SiO_2 D-2011 4500 SiO_2 E-2011
Silver	200.9 (1994)	3113 B-2010	200.7 (1994)	3120 B-2011	200.8 (1994)		3111 B-2011
Sodium			200.7 (1994)				3111 B-2011
Thallium	200.9 (1994)				200.8 (1994)		
Zinc			200.7 (1994)	3120 B-2011	200.8 (1994)		3111 B-2011

R. Safe Drinking Water Act Methodology:

Inorganic – Residue: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification from each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Residue, Filterable (TDS)		SM 2540 C-2011	

Microbiology: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. The laboratory must be approved for a total coliform method and a fecal coliform or *E. coli* method. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]
E.coli Enumeration (MF)	SM 9222B/9222G-1997 m-ColiBlue24®[6] (1999)
E.coli Enumeration (MPN)	SM 9221B.1/9221F-2006
Heterotrophic Bacteria[37]	SM 9215 B-2004 SimPlate[36] (2000)
Total Coliform (MF)[2] *E.coli* Confirmation	SM 9222 B-1997 (M-endo medium) SM 9222 G.1c(2)-1997
Total Coliform (MPN)	SM 9221 B-2006
Total Coliform (P-A) *E. coli* Confirmation	SM 9221 D-1999 SM 9221 F-2006
Total Coliform/*E. coli* (Presence/Absence)	SM 9223 B-2004 Colilert[3] Colisure®[4] (1994) m-ColiBlue24®[6] (1999) Modified Colitag®[40] (2009)
Total Coliform/*E. coli* (MPN)*	SM 9223 B-2004 Colilert Quanti-Tray®[3]
Cryptosporidium	EPA 1622 (2005) EPA 1623 (2005) EPA 1623.1 (2012)

* Method can be used for reporting under the TCR, SWTR, and LT2 Rule.
LT2 Rule requires enumeration of *E.Coli.*

Trihalomethanes: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled.

Parameter	EPA Methodology[1]			
	GC		GC/MS	
Volatile Organics by P&T – GC/PID/Hall	502.2 (1995)			
Purgeable Organics by Cap. Col. – GC/MS			524.2 (1995)	524.3 (2009) 524.4 (2013)
Disinfection Byproducts & Chlor. Solvents GC-ECD		551.1 (1995)		

R. Safe Drinking Water Act Methodology:

Volatiles (VOCs): Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled.

Parameter	EPA Methodology[1]			
	GC		GC/MS	
Volatile Organics by P&T – GC/PID/Hall	502.2 (1995)			
Purgeable Organics by Cap. Col. – GC/MS			524.2 (1995)	524.3 (2009) 524.4 (2013)
Disinfection Byproducts & Chlor. Solvents GC/ECD		551.1 (1995)		

Synthetic Organic Chemicals (SOCs): Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled.

Analytical Method	EPA Methodology[1]				
	GC		GC/MS	HPLC	
Tetra-Octa-Chlor. Dioxins & Furans - HRGC/HRMS			1613B (1994)		
EDB, DBCP, 1,2,3 TCP by Microext - GC/ECD	504.1 (1995)				
Organohalide Pest & PCBs by Microext - GC/ECD	505[16] (1995)				
Phthalate and Adipate Esters - GC-PID	506 (1995)				
Nitrogen & Phosphorus Pesticides - GC/NPD	507 (1995)				
Chlorinated Pesticides by Liq-Liq Ext. - GC/ECD	508 (1995)				
Chlorinated Pesticides by LSE - GC/ECD	508.1 (1995)				
Screening for PCBs by Perchlorination - GC/ECD	508A[14] (1989)				
Chlorinated Acids by Liq-Liq Ext. - GC/ECD	515.1 (1989)				
Chlorinated Acids by Liq-Solid Ext. - GC/ECD	515.2 (1995)				
Chlorinated Acids by Liq-Liq Ext. - GC/ECD	515.3 (1996)	555 (1992)			
Chlorinated Acids by Liq-Liq Micro Ext - GC/ECD	515.4 (2000)				
Organic Compounds by Liq-Solid Ext. - GC/MS			525.2 (1995) 525.3 (2012)		
N-Methylcarbamoyloximes & Carbamates - HPLC				531.1 (1995) 531.2 (2001)	
Glyphosate - HPLC/Fluorescence Detector				547 (1990)	SM 6651-2005
Endothall - GC/MS			548.1 (1992)		
Diquat & Paraquat - HPLC/UV Detector				549.2 (1997)	

R. Safe Drinking Water Act Methodology:

Synthetic Organic Chemicals (SOCs) continued: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled.

Analytical Method	EPA Methodology[1]			
	GC		GC/MS	HPLC
Polynuclear Arom. Hydroc. (PAHs) - HPLC/UV & Fluores.				550 (1990) 550.1 (1990)
Disinfection ByProducts, Chlor. Solvents,Halogenated Pest/Herb - GC/ECD	551.1 (1995)			
Haloacetic Acids & Dalapon by Ion Exchange Liq-Solid Ext. – GC/ECD	552.1 (1992)			
Haloacetic Acids & Dalapon by Liq-Liq Ext. - GC-ECD	552.2 (1995) 552.3 (2003)	SM 6251 B-2007		

Inorganic – Radiological: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certification must reflect the appropriate certification for each parameter and method circled.

Parameter	EPA[1]Methodology	StandardMethods[1]
^{131}Iodine	901.1 (1980) 902.0 (1980)	SM 7120-2011 SM 7500-I B-2011 SM 7500-I C-2011 SM 7500-I D-2011
Gross Alpha	900.0 (1980)	SM 7110 B-2011 SM 7110 C-2011
Gross Beta	900.0 (1980)	SM 7110 B-2011
^{226}Radium	903.0 (1980) 903.1 (1980)	SM 7500-Ra B-2011 SM 7500-Ra C-2011
^{228}Radium	904.0 (1980)	SM 7500-Ra D-2011
^{89}Strontium	905.0 (1980)	SM 7500-Sr B-2011
^{90}Strontium	905.0 (1980)	SM 7500-Sr B-2011
Tritium	906.0 (1980)	SM 7500-^{3}H B-2011
Uranium Radiochemical Fluorometric Alpha Spectrometry ICP/MS	 908.0 (1980) 908.1 (1980) 200.8 (1994)	 SM 7500-U B-2011 SM 7500-U C (17th) SM 7500-U C-2011
Gamma Emitters ^{43}	901.1 (1980) 902.0 (1980) 901.0 (1980)	SM 7120-2011 SM 7500 Cs B-2011 SM 7500 I B-2011

S. Clean Water Act Methodology

Microbiology: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Enterococci (MF)	1600 (2009)	SM 9230 C-2007	
Enterococci (MPN)		SM 9230 D-2007 (Enterolert®[17])	
Fecal Coliform (MF)		SM 9222 D-2006	
Fecal Coliform (MPN)		SM 9221 C E-2006	Colilert® 18 (2010)[20]
Fecal Coliform (MPN) Biosolids Biosolids Preparation	1680 (2010)[24] 1681 (2006)[24]	SM 9221 C E-2006 (Biosolids Preparation Certification Required)	EPA/625/R-92/013 App F[42] (2003)
Total Coliform (MF)		SM 9222 B-2006	
Total Coliform (MPN)		SM 9221 B-2006	
Fecal Streptococci (MF)		SM 9230 C-2007	
Fecal Streptococci (MPN)		SM 9230 B-2007	
E. Coli (MF)	1603 (2009)		m-ColiBlue24®[6] (1999)
E. Coli (MPN)		SM 9223B-2004 (Colilert®/Colilert-18®) SM 9221B.1-2006/9221F-2006	
**Cryptosporidium*	1622 (2005) 1623 (2005)		
**Giardia*	1623 (2005)		

* For ambient water testing only.

Taxonomy: Circle the parameter that the laboratory is seeking certification to perform.

Parameter	Methodology
Freshwater Fish	Key/Reference
Freshwater Macroinvertebrates	Key/Reference
Ichthyoplankton	Key/Reference
Macrophytes	Key/Reference
Marine/Estuarine Fish	Key/Reference
Marine/Estuarine Macroinvertebrates	Key/Reference
Periphyton	Key/Reference
Phytoplankton	Key/Reference
Zooplankton	Key/Reference

S. Clean Water Act Methodology:

Toxicity Testing: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Laboratories must be certified for pH, DO, alkalinity, specific conductance, hardness, and residual chlorine in order to become certified for toxicity. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled. If the certificate does not state that the laboratory's certification includes pH, DO, alkalinity, specific conductance, hardness, and residual chlorine; a letter from the State Certifying Authority stating that these parameters have been evaluated, must be submitted with this application.

Parameter	Methodology[1]
Ceriodaphnia dubia	
Acute Toxicity - *Ceriodaphnia dubia*	EPA 2002.0 (2002)
Chronic Toxicity - *Ceriodaphnia dubia*	EPA 1002.0 (2002)
Mysidopsis bahia (Americamysis bahia)	
Acute Toxicity - *Mysidopsis bahia*	EPA 2007.0 (2002)
Chronic Toxicity - *Mysidopsis bahia*	EPA 1007.0 (2002)
Pimephales promelas	
Acute Toxicity - *Pimephales promelas*	EPA 2000.0 (2002)
Chronic Toxicity - *Pimephales promelas*	EPA 1000.0 (2002)
Daphnia ambigua	
Acute Toxicity - *Daphnia ambigua*	EPA 2002.0 (2002)
Chronic Toxicity - *Daphnia ambigua*	EPA 1002.0 (2002)
Cyprinodon variegatus	
Acute Toxicity - *Cyprinodon variegatus*	EPA 2004.0 (2002)
Chronic Toxicity - *Cyprinodon variegatus*	EPA 1004.0 (2002)
Menidia beryllina	
Acute Toxicity – *Menidia beryllina*	EPA 2006.0 (2002)
Chronic Toxicity – *Menidia beryllina*	EPA 1006.0 (2002)

Inorganic – Biological Examinations: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled where applicable.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Biomass – Plankton		SM 10200 I-2011	
Biomass – Periphyton (Dry Weight)		SM 10300 C-2010	
Chlorophyll a	445.0 (1997)[41]	SM 10200 H-2011	

S. Clean Water Act Methodology:

Inorganic – Demand: Circle only the EPA-approved methodology that the laboratory is seeking to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Biochemical Oxygen Demand (BOD_5) (DO Certification Required)		SM 5210 B-2011	
Carbonaceous BOD ($CBOD_5$) (DO Certification Required)		SM 5210 B-2011	
Chemical Oxygen Demand	410.3 (1978) 410.4 (1993)	SM 5220 B-2011 SM 5220 C-2011 SM 5220 D-2011	Hach 8000 (1979)
Dissolved Oxygen (DO)		SM 4500-O C-2011 SM 4500-O G-2011	ASTM D888-09(A) ASTM D888-09(B) ASTM D888-09(C)[5] Hach 10360 Rev.1.2 (2011)[5]
Total Organic Carbon (TOC)		SM 5310 B-2011 SM 5310 C-2011 SM 5310 D-2011	

Inorganic – Mineral: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Acidity		SM 2310 B-2011	
Alkalinity	310.2 (1974)	SM 2320 B-2011	
Chloride	300.0 (1993) 300.1 (1997)	SM 4110 B-2011 SM 4110 C-2011 SM 4500-Cl^- B-2011 SM 4500-Cl^- E-2011 SM 4500-Cl^- D-2011 SM 4500-Cl^- C-2011	
Fluoride	300.0 (1993) 300.1 (1997)	SM 4110 B-2011 SM 4110 C-2011	
Manual distillation required:		SM 4500-F^- B-2011	
Followed by:		SM 4500-F^- D-2011 SM 4500-F^- C-2011 SM 4500-F^- E-2011	
Hardness, Total ($CaCO_3$)	130.1 (1971)	SM 2340 C-2011 SM 2340 B-2011(calc.)	
Hydrogen-Ion Concentration (pH)	150.2 (1982)	SM 4500-H^+ B-2011	
Specific Conductance	120.1(1982)	SM 2510 B-2011	
Sulfate	300.0 (1993) 300.1 (1997) 375.2 (1993)	SM 4110 B-2011 SM 4110 C-2011 SM 4500-SO_4^{2-} C-2011 SM 4500-SO_4^{2-} D-2011 SM 4500-SO_4^{2-} E-2011 SM 4500-SO_4^{2-} F-2011 SM 4500-SO_4^{2-} G-2011	

S. Clean Water Act Methodology

Inorganic – Miscellaneous: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Adsorbable Organic Halides (AOX)	1650C (1997)		
Bromide	300.0 (1993) 300.1 (1997)	SM 4110 B-2011 SM 4110 C-2011 SM 4110 D-2011 SM 4140 B-2011	
Color - ADMI (Tristimulus) - Visual(Platinum Cobalt) - Spectrophotometric (Plat.Cobalt)		SM 2120 F-2011 SM 2120 B-2011	NCASI 71.01-TB803 (2000)
Cyanide, Total			D7511-09
Distillation with $MgCl_2$ required:	335.4 (1993)	SM 4500-CN^- B,C-2011	10-204-00-1-X[34]
Followed by:	335.4 (1993)	SM 4500-CN^- D-2011 SM 4500-CN^- E-2011 SM 4500-CN^- F-2011	10-204-00-1-X[34]
Cyanide, Amenable (Must be certified for Total Cyanide)		SM 4500-CN^-G-2011[33]	
Cyanide Available			OIA-1677-09[32]
Cyanide, Free			OIA-1677-09[32]
Oil and Grease	1664B (2010)		
Phenols Manual distillation required:	420.1 (1978)	SM 5530B-2010	
Followed by:	420.1 (1978) 420.4 (1993)	SM 5530D-2010	
Residual Chlorine		SM 4500-Cl B-2011 SM 4500-Cl C-2011 SM 4500-Cl D-2011 SM 4500-Cl E-2011 SM 4500-Cl F-2011 SM 4500-Cl G-2011	Orion-77
Sulfide Sample Pretreatment		SM 4500-S^{2-} B-2011 SM 4500-S^{2-} C-2011	
Followed by:		SM 4500-S^{2-} D-2011 SM 4500-S^{2-} F-2011 SM 4500-S^{2-} G-2011	
Sulfite		SM 4500-SO_3^{2-} B-2011	
Surfactants (MBAS)		SM 5540 C-2011	
Temperature		SM 2550 B-2010	
Turbidity	180.1 (1993)	SM 2130 B-2011	

S. Clean Water Act Methodology

Inorganic – Nutrient: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Ammonia-Nitrogen Manual distillation or gas diffusion required:	350.1 (1993)	SM 4500-NH_3 B-2011	
Followed by:	350.1 (1993)	SM 4500-NH_3 C-2011 SM 4500-NH_3 D-2011 SM 4500-NH_3 E-2011 SM 4500-NH_3 F-2011 SM 4500-NH_3 G-2011 SM 4500-NH_3 H-2011	
Kjeldahl-Nitrogen (TKN) Manual digestion and distillation or gas diffusion required:		SM 4500-Norg B-2011 SM 4500-Norg C-2011 SM 4500-NH_3 B-2011	
Followed by:	350.1 (1993)	SM 4500-NH_3 C-2011 SM 4500-NH_3 D-2011 SM 4500-NH_3 E-2011 SM 4500-NH_3 F-2011 SM 4500-NH_3 G-2011 SM 4500-NH_3 H-2011	
Manual distillation not required:	351.1 (1978) 351.2 (1993)	SM 4500-Norg D-2011	
Nitrate-Nitrogen (NO_3)	352.1 (1971) 300.0 (1993) 300.1 (1997)	SM 4110 B-2011 SM 4110 C-2011 SM 4500-NO_3 D-2011	NO_3-NO_2 Minus NO_2
Nitrate-Nitrite Nitrogen (NO_3 + NO_2)	353.2 (1993) 300.0 (1993) 300.1 (1997)	SM 4500-NO_3^- H-2011 SM 4500-NO_3^- E-2011 SM 4500-NO_3^- F-2011 SM 4110 B-2011 SM 4110 C-2011	
Nitrite-Nitrogen (NO_2)	353.2 (1993) 300.0 (1993) 300.1 (1997)	SM 4500-NO_2^- B-2011 SM 4500-NO_3^- E-2011 SM 4500-NO_3^- F-2011 SM 4110 B-2011 SM 4110 C-2011	
Orthophosphate	365.1 (1993) 365.3 (1978) 300.0 (1993) 300.1 (1997)	SM 4500-P F-2011 SM 4500-P G-2011 SM 4500-P E-2011 SM 4110 B-2011 SM 4110 C-2011	
Phosphorus		Digestion: SM 4500-P B(5)-2011	
	365.4 (1974) 365.1 (1993) 365.3 (1978) 200.7 (1994)	Followed by: SM 4500-P F-2011 SM 4500-P E-2011 SM 4500-P G-2011 SM 4500-P H-2011 SM 3120 B-2011	
Total Organic Nitrogen			TKN-NH3(N)

S. Clean Water Act Methodology:

Inorganic – Trace Metal: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	STGFAA	GF	ICP	ICP/MS	Other	
	EPA[1]	SM[1]	EPA[1]	EPA[1]	EPA[1]	SM[1]
Aluminum	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Antimony	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Arsenic	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Barium		SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Beryllium	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Boron			200.7 (1994)	200.8 (1994)		
Cadmium	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Calcium			200.7 (1994)	200.8 (1994)		
Chromium	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Chromium VI (Dissolved)					218.6 (1994)	SM 3500-Cr C-2011 SM 3500-Cr B-2011
Cobalt	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Copper	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Gold				200.8 (1994)	231.2 (1978)	
Iridium					235.2 (1978)	
Iron	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Lead	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Magnesium			200.7 (1994)	200.8 (1994)		
Manganese	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Mercury					1631E (2002) 245.1 (1994) 245.2 (1974) 245.7 (2005)	SM 3112 B-2011
Sampling for Low-Level Metals					EPA 1669 (1996)	
Molybdenum		SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Nickel	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Osmium					252.2 (1978)	
Palladium					253.2 (1978)	

S. Clean Water Act Methodology:

Inorganic – Trace Metal (continued): Circle the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's Certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	STGFAA	GF	ICP	ICP/MS	Other	
	EPA[1]	SM[1]	EPA[1]	EPA[1]	EPA[1]	SM[1]
Platinum					255.2 (1978)	
Potassium			200.7 (1994)	200.8 (1994)		
Rhodium					265.2 (1978)	
Ruthenium					267.2 (1978)	
Selenium	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Silica, Dissolved			200.7 (1994)	200.8 (1994)		
Silver	200.9 (1994)	SM 3113 B-2010	200.7 (1994)	200.8 (1994)		
Sodium			200.7 (1994)	200.8 (1994)		
Strontium			200.7 (1994)			
Thallium	200.9 (1994)	3113 B-2010	200.7 (1994)	200.8 (1994)	279.2 (1978)	
Tin	200.9 (1994)	3113 B-2010	200.7 (1994)	200.8 (1994)		
Titanium			200.7 (1994)	200.8 (1994)	283.2 (1978)	
Vanadium		3113 B-2010	200.7 (1994)	200.8 (1994)		
Zinc			200.7 (1994)	200.8 (1994)	289.2 (1978)	

Inorganic – Radiological: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certification must reflect the appropriate certification for each parameter and method circled.

Parameter	EPA[1] Methodology	Standard Methods[1]
Alpha-Total, pCi per liter	900.0 (1980)	SM 7110B-2000
Alpha-Counting error, pCi per liter	Appendix B (1980)	SM 7110B-2000
Beta-Total, pCi per liter	900.0 (1980)	SM 7110B-2000
Beta-Counting error, pCi per liter	Appendix B (1980)	SM 7110B-2000
(a)Radium, Total, pCi per liter	903.0 (1980)	SM 7500-Ra B-2001
(b)Radium, pCi per liter	903.1 (1980)	SM 7500-Ra C-2001

Inorganic – Residue: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Residue, Filterable (TDS)		SM 2540 C-2011	
Residue, Non-filterable (TSS)		SM 2540 D-2011	
Residue, Settleable (SS)		SM 2540 F-2011	
Residue, Total (TS)		SM 2540 B-2011	
Residue, Volatile (VS) [35]	160.4 (1971)	SM 2540 E-2011	
Total, Fixed, & Volatile Solids [44]		SM 2540 G 18th Ed	

S. Clean Water Act Methodology:

Organic Analyses: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled. **Include a list of requested analytes for each method.**

Parameter	Methodology[1]		
	GC	GC/MS	HPLC
Pesticides & PCBs			
Organochlorine Pesticides & PCBs	EPA 608.3[15] (2016) EPA 608.3[15]-RVE (2016)		
Organophosphate Pesticides	SM 6630 C-2007		
Herbicides			
Chlorinated Phenoxy Acid Herbicides	SM 6640 B-2006 EPA 615 (1992)		
Volatiles			
Volatile Organics by Isotope Dilution –GC/MS		EPA 1624B (1984) EPA 1624C[30] (1990)	
VOCs by Isotope Dilution – GC/MS		EPA 1666A (1998)	
VOCs by GC-FID	EPA 1671A (1998)		
Purgeable Halocarbons –GC/Hall	EPA 601 (1994)		
Purgeable Aromatics – GC/PID	EPA 602 (1984)		
Acrolein & Acrylonitrile	EPA 603 (1984)	EPA 624.1 (2016)	
Purgeables – GC/MS		EPA 624.1 (2016)	
Semivolatiles			
Phenols – GC/FID	EPA 604 (1984)		
Benzidines –HPLC			EPA 605 (1984)
Phthalate Esters – GC/ECD	EPA 606 (1984)		
Nitrosamines – GC/NPD	EPA 607 (1984)		
Nitroaromatics & Isophorone – GC/FID/ECD	EPA 609 (1984)		
Polynuclear Aromatic Hydrocarbons (PAHs) – GC/FID or HPLC	EPA 610 (1984)		EPA 610 (1984)
Haloethers – GC/Hall	EPA 611 (1984)		
Chlorinated Hydrocarbons – GC/ECD	EPA 612 (1984)		
Base Neutrals & Acids –GC/MS PAHs (SIM)		EPA 625.1 (2016) EPA 625.1-RVE (2016) EPA 625.1 SIM (2016) EPA 625.1-RVE SIM (2016)	
SVO by Isotope –GC/MS		EPA 1625B (1984) EPA 1625C[30] (1989) EPA 1653A (1997)	
Formaldehyde, Isobutyraldehyde, and Furfural by HPLC			EPA 1667A (1998)
Dioxins & Furans			
Tetra-Octa-Chlorinated Dioxins & Furans HRGC/HRMS		EPA 1613B (1994)	
2,3,7,8-Tetrachloridibenzo-p-Dioxin		EPA 613 (1984)	

T. Solid and Hazardous Waste Methodology:

Inorganic – Demand: Circle the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Total Organic Carbon (TOC)	9060A (2004)		

Inorganic – Hazardous Waste Characteristics: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Corrosivity Towards steel PH (See Hydrogen-Ion Conc./Method 9040B Under Minerals)	1110A (2004)		
Dermal Corrosion	1120 (1996)		
EP Toxicity Test	1310B (2004)		
Ignitability Pensky Martens Setaflash	 1010A (2004) 1020B (2004)		
Ignitability of Solids	1030 (2014)		
Paint Filter Liquids Test	9095B (2004)		
Liquid Release Test (LRT) Procedure	9096 (1996)		
Multiple Extraction Procedure	1320 (1986)		
SPLP – Synthetic Precipitation Leaching Proc. – Bottle Ext.	1312[25] (1994)		
SPLP – Synthetic Precipitation Leaching Proc. – Zero Head	1312[26] (1994)		
TCLP – Tox. Char. Leach. Proc. – Bottle Ext.	1311[25] (1992)		
TCLP – Tox. Char. Leach. Proc. – Zero Head	1311[26] (1992)		
Test Method for Oxidizing Solids	1040 (2007)		
Test Methods to Determine Substances Likely to Spontaneously Combust	1050 (2007)		

Inorganic – Trace Metal: Circle only the EPA-approved methodology for the digestion techniques that the laboratory is seeking certification to perform. IDOCs and MDLs are required for each digestion procedure employed.

Metals Digestion Techniques	Methodology[1]
	EPA
Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by FLAA or ICP Spectroscopy	3005A (1992)
Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP Spectroscopy	3010A (1992)
Microwave Assisted Acid Digestion of Aqueous Samples and Extracts	3015A (2007)
Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by GFAA Spectroscopy	3020A (1992)
Acid Digestion of Sediments, Sludges, and Soils	3050B (1996)
Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils	3051A (2007)
Hexavalent Chromium Digestion	3060A (1996)
Mercury Species Fractionation and Quantification by Microwave-Assisted Extraction, Selective solvent Extraction and/or solid Phase Extraction (2014)	3200 (2014)

T. Solid and Hazardous Waste Methodology:

Inorganic – Trace Metal: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	FLAA	GFAA	Hydride	ICP	ICP/MS	Colorimetric	Cold Vapor	Other
Aluminum	7000B (2007)			6010D (2014)	6020B (2014)			
Antimony	7000B (2007)	7010 (2007)	7062 (1994)	6010D (2014)	6020B (2014)			6800 (2014)
Arsenic		7010 (2007)	7061A (1996) 7062 (1994)	6010D (2014)	6020B (2014)			
Barium	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Beryllium	7000B (2007)	7010 (2007)		6010D (2014)	6020B[7] (2014)			
Boron				6010D (2014)				6800 (2014)
Cadmium	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Calcium	7000B (2007)			6010D (2014)	6020B (2014)			6800 (2014)
Chromium VI						7196A (1992)		7195 (1986) 7197 (1986) 7198 (1986) 7199 (1996)
Chromium	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Cobalt	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			
Copper	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Iron	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Lead	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Lithium	7000B (2007)			6010D (2014)				
Magnesium	7000B (2007)			6010D (2014)	6020B (2014)			6800 (2014)
Manganese	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			
Mercury				6010D (2014)	6020B (2014)		7470A (1994) 7471B (2007)	7473 (2007) 7474 (2007) 6800 (2014)
Molybdenum	7000B (2007)	7010 (2007)		6010D (2014)	6020B[7] (2014)			6800 (2014)
Nickel	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Osmium	7000B (2007)							
Phosphorus				6010D (2014)				
Potassium	7000B (2007)			6010D (2014)	6020B (2014)			6800 (2014)

T. Solid and Hazardous Waste Methodology

Inorganic – Trace Metal continued: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Selenium		7010 (2007)	7741A (1994) 7742 (1994)	6010D (2014)	6020B (2014)			6800 (2014)
Silica				6010D (2014)	6020B[7] (2014)			
Silver	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Sodium	7000B (2007)			6010D (2014)	6020B (2014)			
Strontium	7000B (2007)			6010D (2014)				6800 (2014)
Thallium	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Tin	7000B (2007)			6010D (2014)	6020B[7] (2014)			
Titanium				6010D (2014)	6020B[7] (2014)			
Vanadium	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)
Zinc	7000B (2007)	7010 (2007)		6010D (2014)	6020B (2014)			6800 (2014)

Inorganic – Trace Metal: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	**Methodology[1]**		
	EPA	Standard Methods	Other
Field Portable X-Ray Fluorescence Spectrometry for the Determination of Elemental Concentrations in Soil and Sediment	6200 (2007)		

Inorganic – Mineral: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Chloride	9212 (1996) 9250 (1986) 9251 (1986) 9253 (1994) 9056A (2007) 6500 (2007		
Fluoride	9214 (1996) 9056A (2007) 6500 (2007)		
Hydrogen-Ion Concentration (pH) (Corrosivity) Hydrogen-Ion Concentration (solid)	9040C (2004) 9045D (2004)		
Specific Conductance	9050A (1996)		
Sulfate	9035 (1986) 9036 (1986) 9038 (1986) 9056A (2007) 6500 (2007)		

T. Solid and Hazardous Waste Methodology

Inorganic – Miscellaneous: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Bomb Preparation Method	5050 (1994)		
Bromide Ion Chromatography Electrode Capillary Ion Electrophoresis	 9056A (2007) 9211 (1996) 6500 (2007		
Compatibility Test for Wastes & Membrane Liners	9090A (1992)		
Cyanide Distillation for Total and Amenable	9010C (2004)		
Cyanide Spectrophotometric, Automated Titrimetric & Manual Spectrophotometric[27] Electrode[27]	 9012B (2004) 9014 (2014) 9213 (1996)		
Cyanide Amenable to Chlorination Spectrophotometric, Automated Titrimetric & Manual Spectrophotometric[27] Electrode[27]	 9012B (2004) 9014 (2014) 9213 (1996)		
Cyanide Extraction for Solids and Oils	9013A (2014)		
Metal Cyanide Complexes by Anion Exchange Chromatography and UV Detection	9015 (2014)		
Extraction Proc. For Oily Wastes	1330A (1992)		
Extraction Organic Halides in Solids (EOX)	9023 (1996)		
Intrinsic Permeability	9100 (1986)		
Oil and Grease	9070A (1999) 9071B (1998)		
Phenolics, Total Recoverable Manual, Spectrophotometric Colorimetric, Automated Spectrophotometric, MBTH	 9065 (1986) 9066 (1986) 9067 (1986)		
Purgeable Organic Halides (POX)	9021 (1992)		
Saturated Hydraulic Conductance	9100 (1986)		
Saturated Leachate Conductance	9100 (1986)		
Sulfides, Extractable	9031 (1992)		
Sulfides, Acid Soluble & Insoluble (Distillation)	9030B (1996)		
Sulfides, Acid Soluble & Insoluble Titrimetric[27] Electrode[27]	 9034 (1996) 9215 (1996)		
Total Chlorine in New and Used Petroleum Products by X-Ray Fluorescence Spectrometry (XRF)	9075 (1994)		
Total Chlorine in New and Used Petroleum Products by OCM	9076 (1994)		
Total Chlorine in New and Used Petroleum Products (Field Test Kit Methods)	9077 (1994)		
Total Organic Halides (TOX)	9020B (1994)		
Determination of Water in Waste Materials by Karl Fischer Titration	9000 (2007)		
Determination of Water in Waste Materials by Quantitative Calcium Hydride Reaction	9001 (2007)		

T. Solid and Hazardous Waste Methodology

Inorganic – Nutrient: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Nitrate-Nitrogen	9210A (2007) 9056A (2007) 6500 (2007)		
Nitrite-Nitrogen	9056A (2007) 9216 (2007) 6500 (2007)		
Orthophosphate	9056A (2007) 6500 (2007)		
Phosphorus	6010D (2014)		

Microbiology: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter method circled.

Parameter	Methodology[1]		
	EPA	Standard Methods	Other
Fecal Coliform (MF)		SM 9222 D-1997	
Fecal Coliform (MPN)		SM 9221 E-2006	
Fecal Streptococci (MF)		SM 9230 C-2007	
Fecal Streptococci (MPN)		SM 9230 B-2007	
Total Coliform (MPN)	9131 (1986)		
Total Coliform (MF)	9132 (1986)		

T. Solid and Hazardous Waste Methodology:

Organic Analyses: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled. **Include a list of requested analytes for each analytical and sample preparation method.**

Parameter	EPA[1] Methodology	
Pesticides and PCBs	Analytical Method	Extraction/Preparation Method[28]
Organochlorine Pesticides by GC: Capillary Column	8081B (2007) **Specify by extraction method if RVE[28] is being requested.**	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3562 (2007) 3580A (1992)
Compound-Independent Elemental Quantitation of Pesticides by GC/AED (Atomic Emission Detection)	8085 (2007)	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3580A (1992)
Organophosphorus Pesticides by GC: Capillary Column	8141B (2007) **Specify by extraction method if RVE[28] is being requested.**	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3580A (1992)
Polychlorinated Biphenyls by GC[15]	8082A (2007) **Specify by extraction method if RVE[28] is being requested.**	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3562 (2007) 3580A (1992)
Herbicides		
Chlorophenoxy Acid Herbicides by GC	8151A (1996)	

T. Solid and Hazardous Waste Methodology:

Organic Analyses continued: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled. **Include a list of requested analytes for each analytical and sample preparation method.**

Parameter	EPA[1] Methodology	
Volatiles		
Nonhalogenated Volatile Organics	8015C (2007)	5021A (2014) 5030B (1996) 5031 (1996) 5032 (1996) 5035 (1996) 3585 (1996)
TPH – Low Boiling Point (GRO)	8015C (GRO) (2007)	5030B (1996) 5035 (1996) 3585 (1996)
Volatiles by GC/Hall/PID	8021B (2014)	5021A (2014) 5030B (1996) 5032 (1996) 5035 (1996) 3585 (1996)
Volatile Organics by GC/MS	8260B (1996)	5021A (2014) 5030B (1996) 5031 (1996) 5032 (1996) 5035 (1996) 3585 (1996)
Volatile Organics – Oxygenates GC/MS	8260B Oxy (1996)	5030B (1996)
Volatile Organics – (SIM) 1,4-Dioxane	8260B SIM (1996)	5030B (1996)
Volatile Organics by Vacuum Distilllation in Combination with GC/MS (VD/GC/MS)	8261 (2007)	
Semivolatiles	Analytical Method	Extraction/Preparation Method[28]
Acetonitrile by GC-NPD	8033 (1996)	
Acrylamide, Acrylonitrile, & Acrolein by HPLC	8316 (1994)	
Acrylamide by GC	8032A (1996)	
Acrylonitrile by GC	8031 (1994)	
Base Neutrals & Acids by GC/MS **(Refer to Polynuclear Aromatic Hydrocarbons for EPA 8270D SIM)**	8270D (2014) **Specify by extraction method if RVE[28] is being requested.**	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3561 (1996) 3580A (1992)

T. Solid and Hazardous Waste Methodology:

Organic Analyses continued: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled. **Include a list of requested analytes for each analytical and sample preparation method.**

Parameter	EPA[1] Methodology	
Semivolatiles	Analytical Method	Extraction/Preparation Method[28]
Base Neutrals & Acids by GC/FT-IR	8410 (2014)	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3560 (1996) 3561 (1996) 3580A (1992)
Carbonyl Compounds by HPLC	8315A (1996)	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3560 (1996) 3561 (1996) 3580A (1992)
EDB & DBCP by Microextraction/GC	8011 (1992)	
Extractable Nonvolatiles by HPLC/TS/MS	8321B (2007)	
Extractable Nonvolatiles by HPLC/PB/MS	8325 (1996)	BASED ON ANALYTE
Haloethers by GC	8111 (2014)	BASED ON ANALYTE
N-Methylcarbamates	8318A (1996)	3510C (1996) 3520C (1996) 3540C (1996) 3541 (1994) 3550C (2007)
Nitroaromatics & Cyclic Ketones by GC	8091 (1996)	
Nitroglycerine by HPLC	8332 (1996)	
Nitroaromatics, Nitramines by HPLC	8330A (2007)	

T. Solid and Hazardous Waste Methodology:

Organic Analyses continued: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled. **Include a list of requested analytes for each analytical and sample preparation method.**

Parameter	EPA[1] Methodology	
Semivolatiles	Analytical Method	Extraction/Preparation Method[28]
Nitrosamines by GC	8070A (1996)	3510C (1996) 3520C (1996) 3540C (1996) 3541 (1994) 3545A (2007) 3550C (2007)
Explosives by GC	8095 (2007)	3535A (2007) 8330A-EXT (Soil extraction)
PAHs & PCBs by TE/GC/MS	8275A (1996)	
Pentachlorophenol (PCP) by UV-Induced Colorimetry	8540 (2007)	
Phenols by GC	8041A (2007)	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3580A (1992)
Phthalate Esters by GC: Capillary Column	8061A (1996)	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3580A (1992)
Polynuclear Aromatic Hydrocarbons by GC/FID	8100 (1986)	3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3561 (1996) 3580A (1992)
Polynuclear Aromatic Hydrocarbons by HPLC	8310 (1986)	3511 (2014) 3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3561 (1996) 3580A (1992)

T. Solid and Hazardous Waste Methodology:

Organic Analyses continued: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled. **Include a list of requested analytes for each analytical and sample preparation method.**

Parameter	EPA[1] Methodology	
Semivolatiles	Analytical Method	Extraction/Preparation Method[28]
Polynuclear Aromatic Hydrocarbons (SIM)	8270D (SIM) (2014) **Specify by extraction method if RVE[28] is being requested.**	3511 (2014) 3510C (1996) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3561 (1996) 3580A (1992)
Tetrazine Reverse Phase by HPLC	8331 (1994)	
TPH – High Boiling Point (DRO)	8015C (DRO) (2007)	3510C (1996) 3511 (2014) 3520C (1996) 3535A (2007) 3540C (1996) 3541 (1994) 3545A (2007) 3546 (2007) 3550C (2007) 3560 (1996) 3561 (1996) 3580A (1992)
Dioxin & Dibenzofurans		
PCDDs/PCDFs by HRGC/LRMS	8280B (2007)	
PCDDs/PCDFs by HRGC/HRMS	8290A (2007)	

Infrared Methods		
Fourier Transform Infrared by GC/FT-IR	8410 (2014)	
Bis(2-chloroethyl) Ether & Hydrolysis by GC/FT-IR	8430 (2014)	
Total, Recoverable Petroleum Hydrocarbons	8440 (1996)	
Immunoassay Methods		
Immunoassay	4000 (1996)	
Pentachlorophenol by Immunoassay	4010A (1996)	
2,4-Dichlorophenoxyacetic Acid by Immunoassay	4015 (1996)	
Polychlorinated Biphenyls by Immunoassay	4020 (1996)	
Polychlorinated Dibenzodioxins and Dibenzofurans (PCDD/Fs) by Immunoassay (2014)	4025 (2014)	

T. Solid and Hazardous Waste Methodology:

Organic Analyses continued: Circle only the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each method and organic contaminant circled.

Parameter	EPA[1] Methodology	Extraction/Preparation Method
Immunoassay Methods		
Soil Screening for TPH by Immunoassay	4030 (1996)	
Soil Screening for PAHs by Immunoassay	4035 (1996)	
Soil Screening for Toxaphene by Immunoassay	4040 (1996)	
Soil Screening for Chlordane by Immunoassay	4041 (1996)	
Soil Screening for DDT by Immunoassay	4042 (1996)	
TNT Explosives in Soil by Immunoassay	4050 (1996)	
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	4051 (1996)	
Polychlorinated Dibenzo-p-Dioxins and Furans (PCDD/Fs) by Aryl Hydrocarbon Receptor PCR Assay (2014)	4430 (2014)	
Toxic Equivalent (TEQS) Determination for Dioxin-Like Chemical Activity with CALUX® Bioassay (2014)	4435 (2014)	
Triazine Herbicides as Atrazine in Water	4670 (1996)	
Miscellaneous Screening Methods		
Headspace	5021A (2014)	
Hexadecane Ext. & Screening of Purgeables	3820 (1986)	
Trinitrotoluene (TNT) in Soil (Color.)	8515 (1996)	
Polychlorinated Biphenyls in Soil	9078 (1996)	
Polychlorinated Biphenyls in Trans. Oil	9079 (1996)	
Volatile Organics in Soil	3815 (2007)	
Extracts of Environmental Samples for Planar Organic Compounds (PAHs, PCBs, PCDDs/PCDFs) by a Reporter Gene on a Human Cell Line	4425 (2007)	
Colorimetric Screening for RDX and HMX in Soil	8510 (2007)	
Total Volatile Organic Halides in Water	8535 (2007)	

U. Shellfish Waters and Meats Methodology:

Microbiology: Circle on the EPA-approved methodology that the laboratory is seeking certification to perform. Out-of-state laboratories: The State Certifying Authority's certificate must reflect the appropriate certification for each parameter and method circled.

Parameter	Methodology
Fecal Coliform(MPN)- Waters	A-1 Medium AOAC-Modified A-1 Test for Seawaters[19]
Fecal Coliform(MPN) - Meats	APHA 4th Ed.1970-Recommended APHA Procedures for Seawater & Shellfish[21]
Heterotrophic Bacteria -Meats	APHA 4th Ed.1970-Recommended APHA Procedures for Seawater & Shellfish[21]
Total Coliform(MPN) - Meats	APHA 4th Ed.1970-Recommended APHA Procedures for Seawater & Shellfish[21]

V. Statement of Validation

I have read South Carolina State Regulation 61-81, titled State Environmental Laboratory Certification. In accordance with that Regulation, as the designated Laboratory Director, I submit this completed Application to the State Environmental Laboratory Certification Program. I attest that the information on pages 1-28 is true, accurate and complete to the best of my knowledge. I agree to notify the State Environmental Laboratory Certification Program within 15 days of changes in laboratory name, ownership, laboratory director, location, personnel, facilities, equipment, methodology, and/or record keeping practices, or any other factors which might impair the ability of the laboratory to perform in accordance with the terms of certification documented in Regulation 61-81.

With the attached application(s), I hereby apply for certification in accordance with the terms listed in South Carolina Environmental Laboratory Certification Regulation 61-81.

_____
Name of Laboratory Director (type or print)

_____ _____
Signature of Laboratory Director Date

W. Designation of Laboratory Director

THIS IS A SAMPLE FORM.

YOUR LABORATORY'S LETTERHEAD

Director, Office of Environmental Laboratory Certification
S.C. Department of Health and Environmental Control
2600 Bull St.
Columbia, South Carolina 29201

Re: Laboratory ID#_____ *(If Laboratory is currently certified)*

Dear Director:

In accordance with South Carolina State Environmental Laboratory Certification Regulation 61-81, Section D(12), as proprietor of _____, I designate _____ as the Laboratory Director. He/she has the responsibility of supervising the operations of the laboratory and ensuring the quality and accuracy of the data reported. If there is a change in the Laboratory Director, I agree to notify the Office of Environmental Laboratory Certification within 15 days of this change.

_____
(Proprietor's Signature and Date)

_____
(Type or Print Name)

_____
(Type or Print Title)

Application Footnotes

1 **Safe Drinking Water Act:**

For the approved methodology for Safe Drinking Water Act compliance, refer to 40 CFR Parts 141 and 143. When using a Standard Methods reference include year approved by Standard Methods Committee The reference method format for the 21st and 22nd Editions of Standard Methods will follow the year approved format. For example, Standard Methods 9223B in the 22nd Edition of Standard Methods will be referenced as SM 9223B-2004.

Clean Water Act:

For the approved methodology for Clean Water Act compliance, refer to 40 CFR Part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants under the Clean Water Act."

Also refer to 40 CFR Part 403, "General Pretreatment Regulations for Existing and New Sources for Pollution," 40 CFR Part 423, "Steam Electric Power Generating Point Source Category", 40 CFR Part 430, "The Pulp, Paper, and Paperboard Point Source Category," 40 CFR Part 439, "Pharmaceutical Manufacturing Point Source category," 40 CFR Part 455, "Pesticide Chemicals," 40 CFR Part 465, "Coil Coating Point Source Category," and 40 CFR Part 503, "Standards for the Use or Disposal of Sewage Sludge."

Solid and Hazardous Waste Testing:

For Solid and Hazardous Waste testing, the EPA approved method reference is SW-846, Third Edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", amended by Updates I, II, II, IIA, IIB, III, IIIA, IIIB IVA, IVB, and V.

Also refer to 40 CFR Parts 260, 261,264, 265, 268, and 270, "Hazardous Waste Management System; Testing and Monitoring Activities".

2 MI agar may also be used. Preparation and use of MI agar is set forth in the article "New Medium for the Simultaneous Detection of Total Coliform and *Escherichia coli* in Water" by Brenner, K.P.,et. al., 1993, Appl. Environ. Microbiol. 59:3534-3544.

3 Colilert is also known as the ONPG-MUG test.

4 A description of the Colisure Test Feb. 28, 1994 can be obtained from IDEXX Laboratories, Inc. One IDEXX Drive, 1 Westbrook, Maine 04092. Phone: 800-321-0207. The website is www.idexx.com.

5 Luminescence Dissolved Oxygen (LDO) Methods.

6 A description of the m-ColiBlue24® Test, Aug.17, 1999 is available from the Hach Company.

7 This metal is not listed in EPA 6020B, but is approved under 40CFR Part 136 by EPA 200.8, which is considered an equivalent method to EPA 6020B.

8 This method is not approved for compliance samples for the disinfection by-product rule.

9 National Council for the Paper Industry for Air and Stream Improvement, Technical Bulletin 803, May 2000.

10 Reserved

11 Under the disinfection by-product rule, the amperometric titration or spectrophotometry may be used for routine daily monitoring of chlorite at the entrance to the distribution system, as prescribed in §141.132(b)(2)(i)(A). Ion chromatography must be used for routine monthly monitoring of chlorite in the distribution system as prescribed in §141.132(b)(2)(i)(B) and (b)(2)(ii).

12-13 Reserved

14 PCBs are quantitatively identified as Arochlors and measured for compliance purposes as decachlorobiphenyl.

15 Method detection limit studies must be submitted for all Arochlors (PCBs).

16 Users of Method 505 may have more difficulty in achieving the required detection limits than users of Methods 508.1, 525.2 or 508.

17 Enterolert, IDEXX Laboratories, Inc.

18 Sample must be filtered within 15 minutes of collection and analyzed within 48 hours.

19 Association of Official Analytical Chemists (AOAC). 2000. *Official Methods of Analyses of the Association of Official Analytical Chemists.*17th Edition, Chapter 17.305, page 22. AOAC, Arlington, VA.

Application Footnotes (Cont.)

20 For the enumeration of fecal coliforms in wastewater effluent. The incubation temperature is 44.5±0.2°C and a water bath incubator is used.

21 American Public Health Association (APHA). 1970. *Recommended Procedures for the Examination of Sea Water and Shellfish*, 4thEdition. APHA, Washington, D.C.

22-23 Reserved

24 Recommended for enumeration of target organism in sewage sludge.

25 Must be accompanied with the applicable metals and organic method certification.

26 Must be accompanied with the applicable volatiles certification.

27 Must be accompanied with the distillation procedure.

28 The extraction or sample preparation method needed will be based on the matrix and analytes of interest. Document reduced volume extraction by writing in "RVE" beside the applicable extraction technique.

29 Must accompany the completed application form.

30 EPA Method 1624C and 1625C are for use with pharmaceutical effluents.

31 If total cyanide is greater than 0.2mg/L, then free cyanide must be determined using the amenable cyanide method or ion selective electrode method.

32 Method OIA–1677–09, Available Cyanide by Ligand Exchange and Flow Injection Analysis (FIA). 2010. OI Analytical.

33 Distillation and analysis by an approved total cyanide method is required following the chlorination and dechlorination treatments.

34 QuikChem Method 10–204–00–1–X, Digestion and Distillation of Total Cyanide in Drinking and Wastewaters using MICRO DIST and Determination of Cyanide by Flow Injection Analysis. Revision 2.2, March 2005. Lachat Instruments.

35 Must be certified for applicable residue method (TSS, TDS, TS).

36 A description of the SimPlate method, "IDEXX SimPlate TM HPC Test Method for Heterotrophs in Water", November 2000 can be obtained from IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, Maine 04092. Phone: 800-321-0207. The website is www.idexx.com.

37 The time from sample collection to initiation of analysis may not exceed 8 hours. Systems must hold samples below 10°C during transit.

38-39 Reserved

40 Modified Colitag®, ATP D05-0035—"Modified Colitag™ Test Method for the Simultaneous Detection of *E. coli* and other Total Coliforms in Water," August 28, 2009.

41 *In Vitro* Determination of Chlorophyll *a* and Pheophytin *a* in Marine and Freshwater Algae by Fluorescence," Revision 1.2, September 1997. Nation Exposure Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268.

42 Sample preparation for fecal coliform analysis in biosolids samples is addressed in the EPA publication "Environmental Regulations and Technology Control of Pathogens and Vector Attraction in Sewage Sludge" EPA document EPA/625/R-92/013. The current version of this document is July 2003. Appendix F addresses the proper techniques and dilutions for preparing biosolids samples for analysis of fecal coliforms using membrane filtration or the Most Probable Number analytical techniques. This method not required if using EPA Methods 1680 or 1681.

43 The Gamma Emitters category includes Barium 133, Cesium 134, Cesium 137, Cobalt 60, and Zinc 65.

44 This method is not approved under 40CFR Part 136. It is approved only for Part 503 biosolids.

45 Ion chromatography & post column reaction or IC/ICP-MS must be used for monitoring of bromate for purposes of demonstrating eligibility of reduced monitoring, as prescribed in §141.132(b)(3)(ii).

Application Footnotes (Cont.)

46 Samples must be preserved at the time of sampling with 50mg ethylenediamine (EDA)/L of sample and must be analyzed within 28 days.

47 Inorganic carbon must be removed from the samples prior to analysis. TOC samples must not be filtered prior to analysis. TOC samples must be acidified at the time of sample collection to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified TOC samples must be analyzed within 28 days.

48 DOC samples must be filtered through 0.45-µm pore-diameter filter as soon as practical after sampling, not to exceed 48 hours. After filtration, DOC samples must be acidified to a pH of less than or equal to 2 with minimal addition of acid specified in the method or by the instrument manufacturer. Acidified DOC samples must be analyzed within 28 days of sample collection. Inorganic carbon must be removed from the samples prior to analysis. Water passed through the filter prior to filtration of the sample must serve as the filtered blank. This filtered blank must be analyzed using procedures identical to those used for analysis of the samples and must meet the following criteria: DOC<0.5mg/L.

49 Prior to analysis, UV_{254} samples must be filtered through a 0.45 µm pore-diameter filter. The pH of the UV_{254} samples may not be adjusted. Samples must be analyzed as soon as practical after sampling, not to exceed 48 hours.