Replacement Check List
For rules filed within the
3rd Quarter
July 1- September 30, 2016

THE ARIZONA ADMINISTRATIVE CODE

Within the stated calendar quarter, this Chapter contains all rules made, amended, repealed, renumbered, and recodified; or rules that have expired or were terminated due to an agency being eliminated under sunset law. These rules were either certified by the Governor's Regulatory Review Council or the Attorney General's Office; or exempt from the rulemaking process, and filed with the Office of the Secretary of State. Refer to the historical notes for more information. Please note that some rules you are about to remove may still be in effect after the publication date of this Supplement. Therefore, all superseded material should be retained in a separate binder and archived for future reference.

Title 9. Health Services

Chapter 14. Department of Health Services - Laboratories

Supplement Release Quarter: 16-3

Sections, Parts, Exhibits, Tables or Appendices modified

R9-14-601 through R9-14-603, R9-14-605 through R9-14-617, R9-14-620, R9-14-621, Tables 1 and 6.1, Exhibits I and I, Tables 6.2A through 6.2E, and Tables 6.3 and 6.4

REMOVE Supp. 15-4	REPLACE with Supp. 16-3
Pages: 1 - 55	Pages: 1 – 66

The Department's contact person who can answer questions about rules in Supp. 16-3:

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Disclaimer: Please be advised the person listed is the contact of record as submitted in the rulemaking package for this supplement. The contact and other information may have changed and is provided as a public courtesy.

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date of the installment payment, the Department may suspend the licensee's authorization to make installment payments and require the licensee to pay all pending fees.

G. If a licensee fails to submit an installment payment within 30 days after its due date, the Department may initiate action under A.R.S. § 36-495.09.

Historical Note

Adopted effective August 16, 1985 (Supp. 85-4). Former Section R9-14-608 repealed, new Section R9-14-608 adopted effective December 20, 1991 (Supp. 91-4). Section citation corrected in preceding historical note; Section R9-14-608 renumbered to R9-14-609; new Section R9-14-608 renumbered from R9-14-607 and amended effective June 20, 1997 (Supp. 97-2). Former Section R9-14-608 renumbered to R9-14-610; new Section R9-14-608 adopted by final rulemaking at 7 A.A.R. 184, effective December 15, 2000 (Supp. 00-4). Amended by final rulemaking at 12 A.A.R. 4798, effective December 5, 2006 (Supp. 06-4). Amended by final rulemaking at 22 A.A.R. 2683, effective October 1, 2016 (Supp. 16-3).

R9-14-609. Proficiency Testing

A. At least once in each 12-month period, and more often if requested by the Department, each licensee or applicant shall have at least one laboratory analyst participate in proficiency testing provided by the Department, the EPA, or a proficiency testing service that:

1. Includes at least one proficiency testing sample for each parameter for which an initial license or renewal license has been issued or requested and for which proficiency testing samples are available;
2. Demonstrates the laboratory analyst's proficiency in compliance testing of:
   a. Applicable drinking water parameters in Table 6.2.A, if:
      i. The applicant plans to perform compliance testing of drinking water parameters, or
      ii. The licensee is approved to perform compliance testing of drinking water parameters; and
   b. Applicable parameters other than drinking water parameters, if:
      i. The applicant plans to perform compliance testing of the parameters, or
      ii. The licensee is approved to perform compliance testing of the parameters; and
   3. If the licensee or applicant has been issued or has requested a license that includes approval for testing an analyte by different methods, may use the same proficiency testing sample for each method.

B. To demonstrate proficiency for a parameter, test results reported for the parameter shall be within acceptance limits established for:

1. Drinking water inorganic chemistry parameters by the EPA, as provided in 40 CFR 141.23;
2. Drinking water organic chemistry parameters by the EPA, as provided in 40 CFR 141.24;
3. Lead or copper in drinking water by the EPA, as provided in 40 CFR 141.89;
4. Disinfection byproducts in drinking water by the EPA, as provided in 40 CFR 141.131; and
5. Other parameters by the EPA or the proficiency testing service.

C. A licensee or applicant shall ensure that:

1. Each proficiency testing sample accepted at the licensee's or applicant's laboratory is analyzed at the licensee's or applicant's laboratory;
2. Each proficiency testing sample is tested within the maximum holding times allowed for its parameter, using the same procedures and techniques employed for routine sample testing, and calculating the holding time from the time the sample seal is broken or as indicated in the instructions accompanying the sample;
3. A proficiency testing service provides proficiency testing results directly to the Department;
4. If proficiency testing is provided by the Department, the licensee or applicant submits to the Department payment for the actual costs of the proficiency testing materials; and
5. If proficiency testing is not provided by the Department or the EPA, the licensee or applicant selects a proficiency testing service and contracts with and pays the proficiency testing service directly for proficiency testing.

D. The Department may submit blind proficiency testing samples to a licensed laboratory at any time during the license period.

Historical Note

Adopted effective December 20, 1991 (Supp. 91-4). Former Section R9-14-609 renumbered to R9-14-610; new Section R9-14-609 renumbered from R9-14-608 and amended effective June 20, 1997 (Supp. 97-2). Former Section R9-14-609 renumbered to R9-14-611; new Section R9-14-609 renumbered from R9-14-607 and amended by final rulemaking at 7 A.A.R. 184, effective December 15, 2000 (Supp. 00-4). Amended by final rulemaking at 12 A.A.R. 4798, effective December 5, 2006 (Supp. 06-4). Amended by final rulemaking at 22 A.A.R. 2683, effective October 1, 2016 (Supp. 16-3).

R9-14-610. Approved Methods and References

A. A licensee or applicant shall ensure that compliance testing is performed according to an approved method and may use method alterations approved by the Department under subsection (C).

B. The approved methods listed by parameter in Tables 6.2.A through 6.2.D are found in the following references, which are incorporated by reference with the modifications described below; are on file with the Department; include no future editions or amendments; and are available as provided below.

Table 1. Key Reference

A Environmental Monitoring and Support Laboratory–Cincinnati, EPA, Pub. No. EPA/600/4-79-020 (600479020), Methods for Chemical Analysis of Water and Wastes (rev. March 1983), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

A1 Environmental Monitoring and Support Laboratory–Cincinnati, EPA, Pub. No. EPA/600/R-94/111 (600R94111), Methods for the Determination of Metals in Environmental Samples: Supplement I (May 1994), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

A2 Environmental Monitoring Systems Laboratory, EPA, Pub. No. EPA/600/R-93/100 (600R93100), Methods for the Determination of Inorganic Substances in Environmental Samples (August 1993), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

A3 Technicon Industrial Systems, Industrial Method No. 380-75WE, Fluoride in Water and Wastewater (February 1976), available from Mequon Technology Center, 10520-C North Baehr Road, Mequon, WI 53092 or by calling (262) 241-7900.

A4 National Service Center for Environmental Publications (NSCEP), Online EPA Publication Title List available at http://nepis.epa.gov/EPA/html/Pubs/pubtitle.html or by calling

(800) 490-9198. Publication numbers for the methods that are listed under this reference are:

1. Method 317.0, Rev 2.0, July 2001, EPA 815-B-01-001
2. Method 314.1, Rev 1.0, May 2005, EPA 815-R-05-009
3. Method 326.0, Rev 1.0, June 2000, EPA 815-R-03-007
4. Method 327.0, Rev 1.1, May 2005, EPA 815-R-05-008
5. Method 331.0, Rev 1.0, January 2005, EPA 815-R-05-007
6. Method 515.4, Rev 1.0, April 2000, EPA 800-R-00-016
7. Method 527, Rev 1.0, April 2005, EPA 815-R-05-005
8. Method 531.2, Rev 1.0, September 2001, EPA 815-B-01-002
9. Method 552.3, Rev 1.0, July 2003, EPA 815-B-03-002
10. Method 200.5, Rev 4.2, October 2003, EPA 600-R-06-115
11. Method 332, Rev 1.0, March 2005, EPA 600-R-05-049
12. Method 415.3, Rev 1.1, February2005, EPA 600-R-05-055
13. Method 415.3, Rev 1.2, September 2009, EPA 600-R-09-122
14. Method 521, Version 1.0, September 2004, EPA 600-R-05-054
15. Method 529, Rev 1.0, September 2002, EPA 600-R-05-052
16. Method 535, Rev 1.1, April 2005, EPA 600-R-05-053
17. Method 1631, Rev E, August 2002, EPA 821-R-02-019
18. Method 557, Version 1.0, September 2009, EPA 815-B-09-012
19. Method 524.4, May 2013, EPA 815-R-13-002
20. Method 524.3, Version 1.0, June 2009, EPA 815-B-09-009
21. Method 522, Version 1.0, September 2008, EPA 600-R-08-101
22. Method 1613, Rev B, October 1994, EPA 821-B-94-005
23. Method 245.7, Rev 2.0, February 2005, EPA 821-R-05-001
24. Method 1664, Rev B, February 2010, EPA 821-R-10-001
25. Method 1638, April 1995, EPA 821-R-95-031
26. Method OIA-1677 DW, January 2004, EPA 821-R-04-001
27. Method 1627, December 2011, Acid Mine Drainage, EPA 821-R-09-002
28. PCBs in Transformer Fluid and Oils, September 1982, EPA 600/4-81-045
29. Asbestos in Bulk Samples, December 1982, EPA 600/M4-82-020
30. Method 100.1, Asbestos Fibers, September 1993, EPA 600/4-83-043
31. Method 100.2, Asbestos Structures over 10m in Length, EPA/600/R-94/134
32. Method 1622, Cryptosporidium in Water, December 2005, EPA 815-R-05-001
33. Method 1623.1, Cryptosporidium and Giardia in Water, January 2012, EPA 816-R-12-001
34. Method 1682, Salmonella in Sewage Sludge, July 2006, EPA 821-R-06-014
35. Method 1605, Aeromonas in Finished Water by MF, October 2001, EPA 821-/R/01/034
36. Method 1604, Total coliforms and E.coli by MF, September 2002, EPA-821-02-024
37. Method 1601, Coliphage, April 2001, EPA 821-R-01-030
38. Method 1602, Coliphage, April 2001, EPA 821-R-01-029
39. Method 1623, Cryptosporidium and Giardia, December 2005, EPA 815-R-05-002
40. Method 537, September 2009, EPA/600/R-08/092
41. Method 302.0, September 2009, EPA-815-B-09-014
42. Method 539, November 2010, EPA 815-B-10-001
43. Method 218.7, November 2011, EPA 815-R-11-005
44. Method 334.0. September 2009, EPA 815-B-09-013

A5 EPA Pub. No. EPA 815-R-00-014 (815R00014), Volume 1, Methods for the Determination of Organic and Inorganic Compounds in Drinking Water (August 2000), available at http://nepis.epa.gov/EPA/html/Pubs/pubtitle.html or by calling (800) 490-9198, modified to require the following when testing for bromate using method 321.8: Samples must be preserved at the time of sampling with 50 mg ethylenediamine (EDA)/L of sample and must be analyzed within 28 days. Ion chromatography and 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 40 CFR 141.132(b)(3)(ii).

A6 Lachat Instruments, 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 (rev. 2.1 November 30, 2000), available from Lachat Instruments, 6645 W. Mill Rd., Milwaukee, WI 53218-0204.

A7 Standard Test Methods for Trace Uranium in Water by Pulsed-Laser Phosphorimetry, ASTM D5174-97, 02, available from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, W. Conshohocken, PA 19428-2959 or through www.astm.org.

B Herman L. Krieger, EPA, Pub. No. EPA-600/4-75-008 (6004755008), Interim Radiochemical Methodology for Drinking Water (March 1976), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

C American Public Health Association et al., Standard Methods for the Examination of Water and Wastewater (22nd edition 2012), available from American Public Health Association, 800 I Street, NW, Washington, DC 20001 or at http://www.standardmethods.org, with the approved method having the same last two digits in the method number as the year in which the method was approved by the Standard Methods Committee, as published for the individual methods in the 22nd edition.

C1 Hach Company, Hach Water Analysis Handbook (5th edition 2008), available from Hach Company, P.O. Box 389, Loveland, CO 80539-0389.

C2 American Public Health Association et al., Standard Methods for the Examination of Water and Wastewater (21st edition 2005), available from American Public Health Association, 800 I St., NW, Washington, DC 20001.

C3 Hach Method 10360, Luminescence Measurement of Dissolved Oxygen in Water and Wastewater and for Use in the Determination of BOD5 and cBOD5, Revision 1.2, October 2011, available from Hach Company, P.O. Box 389, Loveland, CO 80539-0389.

C4 Expedited Approval of Test Procedures for the Analysis of Contaminants Under the Safe Drinking Water Act, August 04, 2014, available at https://www.gpo.gov/fdsys/pkg/FR-2014-06-19/html/2014-14369.htm.

C5 Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Analysis and Sampling Procedures; Final Rule, May 18, 2012, available at http://www.gpo.gov/fdsys/pkg/FR-2012-05-18/pdf/2012-10210.pdf.

C6 The quality control criteria and the modifications listed in the "Guidelines Establishing Test Procedures for the Analysis of Pollutants; Analytical Methods for Biological Pollutants in Wastewater and Sewage Sludge," March 26, 2007, available at http://www.epa.gov/fedrgstr/EPA-WATER/2007/March/Day-26/w1455.pdf.

C7 ChlordioX Plus "Chlorine Dioxide and Chlorite in Drinking Water by Amperometry using Disposable Sensors," November 2013, available from Palintest Ltd., Jamike Avenue, Suite 100, Erlanger, KY 41018.

C8 American Public Health Association et al., Standard Methods for the Examination of Water and Wastewater (20th ed. 1998), available from American Public Health Association, 800 I St., NW, Washington, DC 20001.

D Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA/600/4-88/039 (600488039), Methods for the Determination of Organic Compounds in Drinking Water (rev. July 1991), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

D1 Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA/600/4-90/020 (600490020), Methods for the Determination of Organic Compounds in Drinking Water: Supplement I (July 1990), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

D2 Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA/600/R-92/129 (600R92129), Methods for the Determination of Organic Compounds in Drinking Water: Supplement II (August 1992), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

D3 National Exposure Research Laboratory–Cincinnati, EPA, Pub. No. EPA/600/R-95/131 (600R95131), Methods for the Determination of Organic Compounds in Drinking Water: Supplement III (August 1995), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

D4 Office of Ground Water and Drinking Water Technical Support Center, EPA, Pub. No. EPA 815-R-05-004 (815R05004), Manual for the Certification of Laboratories Analyzing Drinking Water: Criteria and Procedures Quality Assurance (5th edition January 2005), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

D5 Supplement I to the 5th edition of the Manual for the Certification of Laboratories Analyzing Drinking Water; EPA 815-F-08-006, June 2008, available at http://water.epa.gov/scitech/drinkingwater/labcert/index.cfm.

D6 Supplement II to the 5th edition of the Manual for the Certification of Laboratories Analyzing Drinking Water; EPA 815-F-12-006, November 2012, available at http://water.epa.gov/scitech/drinkingwater/labcert/index.cfm.

D7 LT2 Enhanced Surface Water Treatment Rule, January 05, 2006; available at http://water.epa.gov/lawsregs/rulesregs/sdwa/lt2/regulations.cfm.

D8 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, available from CPI International, Inc., 5580 Skylane Blvd., Santa Rosa, CA, 95403 or by calling (800) 878–7654.

D9 Stage 2 Disinfectants and Disinfection Byproducts Rule, January 04, 2006, available at https://www.federalregister.gov/articles/2006/01/04/06-3/national-primary-drinking-water-regulations-stage-2-disinfectants-and-disinfection-byproducts-rule.

D10 National Primary Drinking Water Regulations: Ground Water Rule, 11/08/2006; available at https://www.federalregister.gov/articles/2006/11/08/06-8763/national-primary-drinking-water-regulations-ground-water-rule.

D11 Source Water Monitoring Guidance Manual for Public Water Systems for the Final Long Term 2 Enhanced Surface Water Treatment Rule; EPA 815-R06-005 (815R06005), February 2006, available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

D12 Analytical Methods Recommended for Drinking Water Monitoring of Secondary Contaminants (PDF), EPA 815-B-14-005 (815B14005), January 2014, available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

D13 Analytical Methods Approved for Drinking Water Compliance Monitoring under the Disinfection Byproduct Rules, EPA 815-B-14-004 (815B14004), January 2014, available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

D14 National Primary Drinking Water Regulations: Revisions to the Total Coliform Rule; Final Rule; Federal Register / Vol. 78, No. 30 / Wednesday, February 13, 2013 / Rules and Regulations.

E 40 CFR Part 136 app. A (January 2016), available through http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr136_main_02.tpl.

E1 Office of Water Engineering and Analysis Division, EPA, Pub. No. EPA-821-R-93-010-A (821R93010A), Methods for the Determination of Nonconventional Pesticides in Municipal and Industrial Wastewater: Volume I (rev. 1 August 1993), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

E2 EPA Methods 608.1, 608.2, 614, 614.1, 615, 617, 619, 622, 622.1, 627, and 632, found in Methods for the Determination of Nonconventional Pesticides in Municipal and Industrial Wastewater, EPA 821–R–92–002 (821R92002), April 1992, U.S. EPA, available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

E3 "White House Document" Environmental Regulations and Technology-Control of Pathogens and Vector Attraction in Sewage Sludge, EPA 625/R-92/013 (625R92013), revised July 2003, available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

E4 Organochlorine Pesticides and PCBs in Wastewater Using Empore TM Disk; revised October 28, 1994, 3M Corporation, available from 3M Corporation, at http://www.horizontechinc.com/PDF/epa_methods/method_608_3m.pdf or by calling (800) 440-2966, ext. 67.

E5 American Public Health Association, et al., Standard Methods for the Examination of Water and Wastewater (18th edition 1992), available from American Public Health Association, 800 I St., NW, Washington, DC 20001.

E6 CEM Corporation, Closed Vessel Microwave Digestion of Wastewater Samples for Determination of Metals (April 1992), available from CEM Corporation, P.O. Box 200, 3100 Farm Road, Matthews, NC 28106-0200.

E7 Kelada-01, Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, and Thiocyanate, EPA 821–B–01–009, revision 1.2, August 2001, available from NTIS, 5285 Port Royal Road, Springfield, VA 22161 or by calling (800) 490-9198. EPA Note: A 450–W UV lamp may be used in this method instead of the 550–W lamp specified if it provides performance within the quality control acceptance criteria of the method in a given instrument. Similarly, modified flow cell configurations and flow conditions may be used in the method, provided that the quality control acceptance criteria are met.

E8 Methods for Analysis of Inorganic Substances in Water and Fluvial Sediments, Techniques of Water-Resource Investigations of the U.S. Geological Survey, Book 5, Chapter A1, 1985, USGS, available at U.S. Geological Survey Information Services, Box 25286, Federal Center, Denver, CO 80225-0425.

F Office of Solid Waste and Emergency Response, EPA, Pub. No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (3rd edition 1986), as amended by

Update I, July 1992; Update IIA, August 1993; Update II, September 1994; Update IIB, January 1995; Update III, December 1996; Update IIIA, April 1998; Update IIIB, November 2004; Update IV, February 2007; and Update V, August 18, 2015, available from NTIS, 5285 Port Royal Rd., Springfield, VA 22161, by calling (800) 490-9198, and at http://www.epa.gov/epaoswer/hazwaste/test/main.htm.

F1 8260B AZ Vapor Method for the Determination of VOCs in Vapor Samples, Revision 0.0, dated April 14, 2009, available at http://www.azdhs.gov/documents/preparedness/state-laboratory/lab-licensure-certification/technical-resources/additional-resources/az-vapor-method.pdf.

F2 EPA, Method 5035A: Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples (draft rev. 1 July 2002), available at https://www.epa.gov/homeland-security-research/epa-method-5035a-sw-846-closed-system-purge-and-trap-and-extraction.

F3 EPA, Method 4025: Screening for Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans (PCDD/Fs) by Immunoassay (rev. 0 October 2002), available at https://www.epa.gov/hw-sw846/sw-846-test-method-4025-screening-polychlorinated-dibenzodioxins-and-polychlorinated.

F4 EPA, Method 3570: Microscale Solvent Extraction (MSE) (rev. 0 November 2002), available at https://www.epa.gov/homeland-security-research/epa-method-3570-sw-846-microscale-solvent-extraction-mse.

F5 EPA, Method 3511: Organic Compounds in Water by Microextraction (rev. 0 November 2002), available at https://www.epa.gov/hw-sw846/sw-846-test-method-3511-organic-compounds-water-microextraction.

F6 EPA, Method 5030C: Purge-and-Trap for Aqueous Samples (rev. 3 May 2003), available at https://www.epa.gov/homeland-security-research/epa-method-5030c-sw-846-purge-and-trap-aqueous-samples.

F7 EPA, Method 8015D: Nonhalogenated Organics Using GC/FID (rev. 4 June 2003), available at https://www.epa.gov/hw-sw846/validated-test-method-8015d-nonhalogenated-organics-using-gas-chromatographyflame.

F8 EPA, Method 5021A: Volatile Organic Compounds in Various Sample Matrices Using Equilibrium Headspace Analysis (rev. 1 June 2003), available at https://www.epa.gov/hw-sw846/validated-test-method-5021a-volatile-organic-compounds-vocs-various-sample-matrices-using.

F9 EPA, Method 9015: Metal Cyanide Complexes by Anion Exchange Chromatography and UV Detection (rev. 0 November 2004), available at https://www.epa.gov/hw-sw846/sw-846-test-method-9015-metal-cyanide-complexes-waters-and-waste-extracts-using-anion.

F10 EPA, Method 9013A: Cyanide Extraction Procedure for Solids and Oils (rev. 1 November 2004), available at https://www.epa.gov/hw-sw846/sw-846-test-method-9013a-cyanide-extraction-procedure-solids-and-oils.

F11 Method 8330B, Nitroaromatics, Nitramines, and Nitrate Esters by High Performance Liquid Chromatography, Revision 2, October 2006, available at https://www.epa.gov/hw-sw846/validated-method-8330b-nitroaromatics-nitramines-and-nitrate-esters-high-performance-liquid.

F12 EPA 8260C (SW-846) Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS), Revision 3, 2006,available at https://www.epa.gov/hw-sw846/validated-test-method-8260c-volatile-organic-compounds-gas-chromatographymass-spectrometry.

F13 SW 846 Update V, Revision 2, July 2014, Chapters ONE through FIVE, applicable to 6010D, 6020B, 8260C, and 8270D, available at https://www.epa.gov/hw-sw846/sw-846-compendium.

F14 EPA Method 8000C: Determinative Chromatographic Separations (rev. 3 March 2003), available at https://archive.epa.gov/epawaste/hazard/testmethods/web/pdf/method%208000c,%20revision%203%20-%202003.pdf.

G National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, Pub. No. 94-113, NIOSH Manual of Analytical Methods (4th edition, August 1994), available from Superintendent of Documents, Government Printing Office, Washington, DC 20402-9325.

G1 Method for the Determination of Asbestos in Bulk Building Materials, EPA/600R-93/116, July 1993, available at http://www.nist.gov/nvlap/upload/EPA-600-R-93-116.pdf. A concurrent certification is also required for Asbestos in Bulk samples, December 1982, EPA 600/M4-82-020 (A4.29), as outlined in NVLAP Lab Bulletin, LB-68-2012, available at http://www.nist.gov/nvlap/upload/LB_68_2012.pdf.

H National Environmental Laboratory Accreditation Conference, 2009 NELAC, available from the National Environmental Laboratory Accreditation Conference, P.O. Box 2439, Weatherford, TX 76086 or at www.nelac-institute.org.

I ASTM, individual standards available from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, W. Conshohocken, PA 19428-2959 or at www.astm.org.

J L.L. Thatcher et al., U.S. Department of the Interior, "Methods for Determination of Radioactive Substances in Water and Fluvial Sediments," Chapter A5 in Book of Techniques of Water-Resources Investigations of the United States Geological Survey, 1977, available from U.S. Geological Survey Information Services, Box 25286, Federal Center, Denver, CO 80225-0425.

K Bureau of State Laboratory Services, Arizona Department of Health Services, Method No. BLS-188, Ethylene Glycol in Waste Water (rev. April 1991); and Bureau of State Laboratory Services, Arizona Department of Health Services, C_{10} - C_{32} Hydrocarbons in Soil - 8015AZ (rev. 1.0 September 1998), available from the Bureau of State Laboratory Services, 250 N. 17th Ave., Phoenix, AZ 85007, and at http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#technical-resources-additional.

K1 Office of Water, EPA, Pub. No. EPA-821-B-98-016 (821B98016), Analytical Methods for the Determination of Pollutants in Pharmaceutical Manufacturing Industry Wastewater (July 1998), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

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N1 Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA-600-4-91-002 (600491002), Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms (3rd edition July 1994), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

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X Office of Ground Water and Drinking Water, EPA, Pub. No. EPA/600/4-91/016 (600491016), Test Methods for *Escherichia coli* in Drinking Water: EC Medium with Mug Tube Procedure, Nutrient Agar with Mug Membrane Filter Procedure (July 1991), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

Y Method OIA-1677-09, Available Cyanide by Ligand Exchange and Flow Injection Analysis (FIA). 2010, available from ALPKEM, a Division of OI Analytical, 151 Graham Road, College Station, TX 77845 or by calling (979) 690-1711.

Z IDEXX Colilert*-18 and Quanti-Tray* Test Method for the Detection of Fecal Coliforms in Wastewater, available from IDEXX Laboratories, Inc., One IDEXX Dr., Westbrook, ME 04092 or by calling 1-800-548-6733.

Z1 EPA Method 1681, July 2006, EPA-821-R-06-013, Fecal Coliform in Sewage Sludge (Biosolids) by Multiple Tube Fermentation using A-1 Medium, available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

Z2 EPA, Pub. No. EPA-821-R-02-013 (821R02013), Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (4th edition October 2002), available at http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

Z3 IDEXX Laboratories, Inc., IDEXX SimPlate TM HPC Method for Heterotrophs in Water (November 2000), available from IDEXX Laboratories, Inc., One IDEXX Dr., Westbrook, ME 04092.

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Z5 CPI International Colitag® Product as a Test for Detection and Identification of Coliforms and *E. coli* Bacteria in Drinking Water and Source Water as Required in National Primary Drinking Water Regulations, August 2001, available from CPI International, 5580 Skylane Blvd, Santa Rosa, CA 95403, at http://www.cpiinternational.com, or by calling 1-800-878-7654.

Z6 m-ColiBlue 24 Test, Total Coliforms and *E. coli* Membrane Filtration Method with m-ColiBlue 24 Broth, Method No. 10029, Revision 2, August 17, 1999, available at Hach Company, P.O. Box 389, Loveland, Colorado 80539-0389 or by calling 1-800-227-4224.

Z7 Colisure Test, IDEXX Laboratories Inc., February 28, 1994, available from IDEXX Laboratories, Inc., One IDEXX Dr., Westbrook, ME 04092 or by calling 1-800-548-6733.

Z8 Presence/Absence for Coliforms and *E. coli* in Water, Charm Sciences, Inc., December 21, 1997, available at 659 Andover Street, Lawrence, MA 01843, 987-687-9200, http://www.charm.com.

Z9 OI Analytical/ALPKEM, Nitrogen, Total Kjeldahl, Method PAI-DK01 (Block Digestion, Steam Distillation, Titrimetric

Detection) (rev. December 22, 1994), available from OI Analytical/ALPKEM, P.O. Box 9010, College Station, TX 77842.

Z10 OI Analytical/ALPKEM, Nitrogen, Total Kjeldahl, Method PAI-DK02 (Block Digestion, Steam Distillation, Colorimetric Detection) (rev. December 22, 1994), available from OI Analytical/ALPKEM, P.O. Box 9010, College Station, TX 77842.

Z11 OI Analytical/ALPKEM, Nitrogen, Total Kjeldahl, Method PAI-DK03 (Block Digestion, Automated FIA Gas Diffusion) (rev. December 22, 1994), available from OI Analytical/ALPKEM, P.O. Box 9010, College Station, TX 77842.

Z12 EPA, Pub. No. EPA-821-R-02-012, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (5th edition October 2002), available http://nepis.epa.gov/EPA/html/pubs/pubtitle.html or by calling (800) 490-9198.

Z13 Lozarchak, J. 2001, "Short-term Chronic Toxicity Tests on Daphnia magna (Survival and Growth Tests)", USEPA, available from the Department at 250 N. 17th Ave, Phoenix, AZ 85007, and at http://www.azdhs.gov/documents/preparedness/state-laboratory/lab-licensure-certification/technical-resources/additional-resources/lazorchak-toxicity-method.pdf.

Z14 ReadyCult Coliforms 100 Presence/Absence Test for Detection and Identification of Coliform Bacteria and *Escherichia coli* in Finished Waters, Version 1.1, January 2007, available from EM Science, EMD Millipore, 290 Concord Road, Billerica, MA 01821, at http://www.emdmillipore.com, or by calling 781-533-6000.

Z15 Chromocult® Coliform Agar Presence/Absence Membrane Filter Test Method for Detection and Identification of Coliform Bacteria and *Escherichia coli* in Finished Waters, Version 1.0, November 2000, available from EM Science, EMD Millipore, 290 Concord Road, Billerica, MA 01821, at http://www.emdmillipore.com, or by calling 781-533-6000.

C. If an approved method is not available for a particular parameter, or a method or method alteration that is not an approved method is required or authorized to be used for a particular parameter by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8, a licensee or a person exempt under R9-14-602(4) or (5) may request approval of an alternate method or method alteration by submitting to the Department:

1. For an alternate method or method alteration required or authorized by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8, the following information:
   a. The name, address, and telephone number of the licensee or person exempt under R9-14-602(4) or (5) submitting the request;
   b. The name, address, and telephone number of the laboratory for which approval of the alternate method or method alteration is requested;
   c. Identification of the parameter for which approval of the alternate method or method alteration is requested; and
   d. Reference to the EPA, ADEQ, U.S. Food and Drug Administration, or 9 A.A.C. 8 requirement or authorization for the use of the alternate method or method alteration for which approval is requested;
2. For an alternate method or method alteration to be used because an approved method is not available for a particular parameter, the following information:
   a. The name, address, and telephone number of the licensee or person exempt under R9-14-602(4) or (5) submitting the request;
   b. The name, address, and telephone number of the laboratory for which approval of the alternate method or method alteration is requested;
   c. Identification of the parameter for which approval of the alternate method or method alteration is requested; and
   d. Written justification for using the alternate method or method alteration for which approval is requested, including the following:
      i. A detailed description of the alternate method or method alteration;
      ii. References to published or other studies confirming the general applicability of the alternate method or method alteration to the parameter for which its use is intended;
      iii. Reference to the EPA, ADEQ, U.S. Food and Drug Administration, or 9 A.A.C. 8 requirement to test the parameter; and
      iv. Data that demonstrate the performance of the alternate method or method alteration in terms of accuracy, precision, reliability, ruggedness, ease of use, and ability to achieve a detection limit appropriate for the proposed use of the alternate method or method alteration; and
3. An alternate method or method alteration approval fee of $50, payable to the Arizona Department of Health Services, in the form of a certified check, business check, money order, or credit card payment.

D. Before approving an alternate method or method alteration that is not required or authorized by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8, the Department may require that the alternate method or method alteration be performed by a laboratory designated by the Department to verify that, using the parameter for which its use is intended, the alternate method or method alteration produces data that comply with subsection (C)(2)(d)(iv).

E. The Department may approve an alternate method or method alteration if the Department determines:

1. One of the following:
   a. Use of the alternate method or method alteration is required or authorized by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8; or
   b. Use of the alternate method or method alteration is justified as described in subsection (C)(2)(d); and
2. If the alternate method or method alteration pertains to drinking water compliance testing, the EPA concurs that the alternate method or method alteration may be used.

F. The Department may rescind the approval of an alternate method or method alteration approved by the Department according to subsection (E), if, as applicable:

1. For an alternate method or method alteration requested under subsection (C)(1), the alternate method or method alteration is no longer required or authorized by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8; or
2. For an alternate method or method alteration requested under subsection (C)(2), an approved method becomes available for the particular parameter.

Historical Note

Adopted effective December 20, 1991 (Supp. 91-4). Former Section R9-14-610 renumbered to R9-14-611; new Section R9-14-610 renumbered from R9-14-609 and amended effective June 20, 1997 (Supp. 97-2). Former Section R9-14-610 renumbered to R9-14-612; new Section R9-14-610 renumbered from R9-14-608 and amended by final rulemaking at 7 A.A.R. 184, effective December 15, 2000 (Supp. 00-4). Amended by final rulemaking at 10 A.A.R. 1687, effective April 6, 2004 (Supp. 04-2). Amended by final rulemaking at 12 A.A.R.

4798, effective December 5, 2006 (Supp. 06-4). Amended by final rulemaking at 22 A.A.R. 2683, effective October 1, 2016 (Supp. 16-3).

R9-14-611. Compliance Testing for Drinking Water Parameters

A. A licensee for a laboratory at which compliance testing for drinking water parameters is performed, including compliance testing performed according to 9 A.A.C. 8, Article 2, shall ensure that:
1. Except as provided in subsection (B), the laboratory is operated in compliance with the guidelines in Key References D4, D5, and D6, excluding the requirements for laboratory personnel education and experience;
2. Each sample for Arizona drinking water parameter compliance testing is analyzed:
   a. Using an approved method:
      i. Listed in Table 6.2.A; or
      ii. Approved by the Department for compliance testing for drinking water parameters under R9-14-610(E); and
   b. If the approved method is from Key Reference C, following the quality control guidelines in Key Reference C associated with the approved method; and
3. If the licensee requests approval to perform testing for vinyl chloride, the licensee also obtains approval to perform testing for each of the analytes listed in 40 CFR 141.61(a)(2)-(21).

B. If an approved method does not include a specific quality control guideline, a licensee for a laboratory at which compliance testing for drinking water parameters is performed shall ensure that the laboratory is operated in compliance with the guidelines in Key References C4, D7, D9, D10, D11, D12, D13, or D14, as applicable.

Historical Note

Adopted effective December 20, 1991 (Supp. 91-4). Former Section R9-14-611 renumbered to R9-14-612; new Section R9-14-611 renumbered from R9-14-610 and amended effective June 20, 1997 (Supp. 97-2). Former Section R9-14-611 renumbered to R9-14-613; new Section R9-14-611 renumbered from R9-14-609 and amended by final rulemaking at 7 A.A.R. 184, effective December 15, 2000 (Supp. 00-4). Amended by final rulemaking at 12 A.A.R. 4798, effective December 5, 2006 (Supp. 06-4). Amended by final rulemaking at 22 A.A.R. 2683, effective October 1, 2016 (Supp. 16-3).

R9-14-612. Compliance Testing for Wastewater Parameters

A licensee for a laboratory at which compliance testing for wastewater parameters is performed shall ensure that:
1. The laboratory is operated in compliance with the guidelines in Key References C5 and C6; and
2. Each sample for Arizona wastewater parameter compliance testing is analyzed:
   a. Using an approved method:
      i. Listed in Table 6.2.B; or
      ii. Approved by the Department for wastewater parameter compliance testing under R9-14-610(E); and
   b. If the approved method is from Key Reference C, following the quality control guidelines in Key Reference C associated with the approved method.

Historical Note

Adopted effective December 20, 1991 (Supp. 91-4). Former Section R9-14-612 renumbered to R9-14-613; new Section R9-14-612 renumbered from R9-14-611 and amended effective June 20, 1997 (Supp. 97-2). Former Section R9-14-612 renumbered to R9-14-614; new Section R9-14-612 renumbered from R9-14-610 and amended by final rulemaking at 7 A.A.R. 184, effective December 15, 2000 (Supp. 00-4). Amended by final rulemaking at 12 A.A.R. 4798, effective December 5, 2006 (Supp. 06-4). Amended by final rulemaking at 22 A.A.R. 2683, effective October 1, 2016 (Supp. 16-3).

R9-14-613. Compliance Testing for Waste Parameters

A. A licensee for a laboratory at which compliance testing for waste parameters is performed shall ensure that each waste sample for Arizona compliance testing is analyzed using an approved method:
1. Listed in Table 6.2.C; or
2. Approved by the Department for waste compliance testing under R9-14-610(E).

B. A licensee for a laboratory at which compliance testing for waste parameters is performed using an 8000 series method from Key Reference F shall:
1. If the method includes specific quality control requirements, follow the specific quality control requirements in the method;
2. If the method does not include specific quality control requirements, follow all requirements in Key Reference F14; and
3. If the method does not include specific sample extraction procedures, follow the procedures in the following from Key Reference F, as applicable:
   a. Method 3500B,
   b. Method 3600C, or
   c. Method 5000.

C. A licensee for a laboratory at which compliance testing for waste parameters is performed using a non-8000 series method from Key Reference F shall comply with the following from Key Reference F, as applicable, according to the requirements of the specific method:
1. Method 4000, or
2. Methods 7000B and 7010.

D. A licensee for a laboratory at which compliance testing for waste parameters is performed using a method from Key Reference F shall comply with Chapters 1 through 8 of Update IV, February 2007, of Key Reference F, as applicable, according to the requirements of the specific method.

Historical Note

Adopted effective December 20, 1991 (Supp. 91-4). Former Section R9-14-613 renumbered to R9-14-614; new Section R9-14-613 renumbered from R9-14-612 and amended effective June 20, 1997 (Supp. 97-2). Former Section R9-14-613 renumbered to R9-14-615; new Section R9-14-613 renumbered from R9-14-611 and amended by final rulemaking at 7 A.A.R. 184, effective December 15, 2000 (Supp. 00-4). Amended by final rulemaking at 12 A.A.R. 4798, effective December 5, 2006 (Supp. 06-4). Amended by final rulemaking at 22 A.A.R. 2683, effective October 1, 2016 (Supp. 16-3).

R9-14-614. Compliance Testing for Air and Stack Parameters

A licensee for a laboratory at which compliance testing for air or stack parameters is performed shall ensure that each air or stack sample for Arizona compliance testing is analyzed using an approved method:
1. Listed in Table 6.2.D; or
2. Approved by the Department for compliance testing for air or stack parameters under R9-14-610(E).

standard value represented in the initial calibration; and
iii. Explaining the origin of the lower end of the detectable range in the laboratory's standard operating procedure;
9. Discard or segregate all expired standards or reagents;
10. Maintain a record showing the traceability of reagents; and
11. Ensure that a calibration model is not used or changed to avoid necessary instrument maintenance.

D. A licensee or applicant may submit a written request to the Department for an exemption from subsection (C)(1) for a specific parameter if the licensee or applicant documents:
1. That the approved method has been performed at the laboratory and that the analytical data generated were scientifically valid and defensible and of known and acceptable precision and accuracy; and
2. The licensee's or applicant's ability to obtain the equipment, reagent, or glassware necessary to perform the approved method.

E. The written request for an exemption under subsection (D) shall include:
1. The name, address, and main telephone number of the laboratory;
2. The name, address, and telephone number of the licensee or applicant submitting the request;
3. Identification of the parameter and the equipment, reagent, or glassware for which the licensee or applicant is requesting an exemption; and
4. The documentation described in subsections (D)(1) and (2).

F. The Department may approve a request for an exemption under subsection (D) if the Department determines that the:
1. Approved method has been performed at the laboratory;
2. Analytical data generated were scientifically valid and defensible and of known and acceptable precision and accuracy; and
3. Licensee or applicant is able to obtain the equipment, reagent, or glassware necessary to perform the approved method.

G. A licensee or applicant shall ensure that a laboratory's written quality assurance plan is a separate document available at the laboratory and includes all of the components required in subsection (B), but a licensee or applicant may satisfy the components required in subsections (B)(3) through (15) through incorporating by reference provisions in separate documents, such as standard operating procedures.

H. Except as provided in subsection (I), a licensee or applicant shall ensure that each laboratory standard operating procedure is a separate document available at the laboratory and includes all of the components required in subsection (C)(3).

I. A licensee or applicant may satisfy the components required in subsections (C)(3)(e) and (f) through incorporating by reference provisions in separate documents, such as other standard operating procedures.

Historical Note

Adopted effective December 20, 1991 (Supp. 91-4). Former Section R9-14-615 renumbered to R9-14-616; new Section R9-14-615 renumbered from R9-14-614 and amended effective June 20, 1997 (Supp. 97-2). Former Section R9-14-615 renumbered to R9-14-617; new Section R9-14-615 renumbered from R9-14-613 and amended by final rulemaking at 7 A.A.R. 184, effective December 15, 2000 (Supp. 00-4). Amended by final rulemaking at 12 A.A.R. 4798, effective December 5, 2006 (Supp. 06-4). Amended by final rulemaking at 22 A.A.R. 2683, effective October 1, 2016 (Supp. 16-3).

R9-14-616. Operation

A licensee shall ensure that:
1. A compliance testing sample accepted at the licensee's laboratory is analyzed at:
   a. The licensee's laboratory,
   b. Another laboratory licensed under this Article, or
   c. A laboratory exempt under R9-14-602;
2. The facility and utilities required to operate equipment and perform compliance testing are maintained;
3. Environmental controls are maintained within the laboratory to ensure that laboratory environmental conditions do not affect analytical results beyond quality control limits established for the methods performed at the laboratory;
4. Storage, handling, and disposal of hazardous materials at the laboratory are in accordance with all state and federal regulations;
5. The following information is maintained for all supervisory, quality assurance, and analytical personnel:
   a. A summary of each individual's education and professional experience;
   b. Documentation of each individual's review of the quality assurance plan required under R9-14-615(B) and the approved methods and laboratory standard operating procedures for each area of testing performed by the individual or for which the individual has supervisory or quality assurance responsibility;
   c. Documentation of each analyst's completion of training on the use of equipment and of proper laboratory technique, including the name of the analyst, the name of the instructor, the duration of the training, and the date of completion of the training;
   d. Documentation of each analyst's completion of training classes, continuing education courses, seminars, and conferences that relate to the testing procedures used by the analyst for compliance testing;
   e. Documentation of each analyst's completion of Initial Demonstration of Capability as required for each approved method performed by the analyst, as applicable;
   f. Documentation of each analyst's performance of proficiency testing, as applicable;
   g. Documentation of each analyst's completion of training related to instrument calibration that includes:
      i. Instruction on each calibration model that the analyst will use or for which the analyst will review data;
      ii. For each calibration model described in subsection (5)(g)(i), the specific aspects of the calibration model that might compromise the data quality, such as detector saturation, lack of detector sensitivity, the calibration model's not accurately reflecting the calibration points, inappropriate extension of the calibration range, weighting factors, and dropping of mid-level calibration points without justification; and
      iii. Instruction that a calibration model shall not be used or changed to avoid necessary instrument maintenance; and
   h. Documentation of each individual's applicable certifications and specialized training; and
6. The licensee complies with all applicable federal, state, and local occupational safety and health regulations.

Historical Note

Adopted effective December 20, 1991 (Supp. 91-4). Former Section R9-14-616 renumbered to R9-14-617; new Section R9-14-616 renumbered from R9-14-615 effective June 20, 1997 (Supp. 97-2). Former Section R9-14-616 repealed; new Section R9-14-616 renumbered from R9-14-614 and amended by final rulemaking at 7 A.A.R. 184, effective December 15, 2000 (Supp. 00-4). Amended by final rulemaking at 12 A.A.R. 4798, effective December 5, 2006 (Supp. 06-4). Amended by final rulemaking at 22 A.A.R. 2683, effective October 1, 2016 (Supp. 16-3).

R9-14-617. Laboratory Records and Reports

A licensee or applicant shall ensure that:

1. Each record and report required to be maintained by this Article is available for inspection and copying by the Department during a laboratory's normal business hours;
2. The Department is permitted to remove copied records and reports from a laboratory;
3. The licensee or applicant maintains records and reports of compliance testing for at least five years after the date of compliance testing, with:
   a. All records and reports for at least the most current two years maintained onsite at the laboratory and the remaining records and reports stored in a secure storage facility;
   b. Each hard copy document containing data either maintained as a hard copy document or scanned into a PDF file or another electronic file format that preserves an exact copy of the hard copy data; and
   c. All instrument-generated electronic data maintained in a reproducible format from which reports can be produced and printed;
4. No portion of a record or report of compliance testing is altered or deleted to hide or misrepresent any part of the data;
5. The licensee or applicant produces all records and reports requested by the Department within 24 hours after the request or, if the licensee or applicant requests a period longer than 24 hours, the longer period of time agreed upon by the Department;
6. Upon Department request, the licensee or applicant makes available for inspection and copying the requested data from non-Arizona compliance samples;
7. A compliance testing record contains:
   a. Sample information, including the following:
      i. A unique sample identification assigned at the laboratory,
      ii. The location or location code of sample collection,
      iii. The sample collection date and time,
      iv. The type of testing to be performed, and
      v. The name of the individual who collected the sample;
   b. The name and address of the client submitting the sample to the laboratory;
   c. The name of the individual who submitted the sample to the laboratory;
   d. The date and time of receipt of the sample at the laboratory;
   e. The name of the individual who received the sample at the laboratory;
   f. The dates and times of testing, including the date and time of each critical step;
   g. The actual results of compliance testing, including all raw data, work sheets, and calculations performed;
   h. The actual results of quality control data validating the test results, including the calibration and calculations performed;
   i. The name of each analyst or who performed the testing; and
   j. A copy of the final report; and
8. A final report of compliance testing contains:
   a. The name, address, and telephone number of the laboratory;
   b. The license number assigned to the laboratory by the Department;
   c. Actual scientifically valid and defensible results of compliance testing in appropriate units of measure, obtained in accordance with an approved method and quality assurance plan;
   d. Qualified results of compliance testing not obtained in accordance with an approved method and quality assurance plan;
   e. A list of each approved method used to obtain the reported results;
   f. Sample information, including the following:
      i. The unique sample identification assigned at the laboratory,
      ii. The location or location code of sample collection,
      iii. The sample collection date and time,
      iv. The name of the individual who collected the sample,
      v. The name of the client that submitted the sample to the laboratory, and
      vi. The name of the individual who submitted the sample to the laboratory;
   g. The date of analysis for each parameter reported;
   h. The date of the final report; and
   i. The laboratory director's or designee's signature.

Historical Note

Adopted effective December 20, 1991 (Supp. 91-4). Former Section R9-14-617 renumbered to R9-14-618; new Section R9-14-617 renumbered from R9-14-616 and amended effective June 20, 1997 (Supp. 97-2). Former Section R9-14-617 renumbered to R9-14-618; new Section R9-14-617 renumbered from R9-14-615 and amended by final rulemaking at 7 A.A.R. 184, effective December 15, 2000 (Supp. 00-4). Amended by final rulemaking at 12 A.A.R. 4798, effective December 5, 2006 (Supp. 06-4). Amended by final rulemaking at 22 A.A.R. 2683, effective October 1, 2016 (Supp. 16-3).

R9-14-618. Mobile Laboratories

A. An applicant shall obtain a license for each mobile laboratory, unless the applicant chooses the single license option for multiple laboratories as described in R9-14-603(D).

B. A licensee or applicant for a mobile laboratory shall ensure that the mobile laboratory is operated in compliance with all of the requirements of this Article.

C. Upon Department request, a licensee or applicant for a mobile laboratory shall provide to the Department the mobile laboratory's location and a list of the parameters for which testing is performed at the mobile laboratory.

Historical Note

R9-14-618 renumbered from R9-14-617 and amended effective June 20, 1997 (Supp. 97-2). Former Section R9-

Table 6.2.A. Approved Methods and Method Fees for Drinking Water Parameters

1. Microbiology of Drinking Water			
Description	**Reference**	**Method/s**	**Fee Per Method**
Aeromonas	A4.35	1605	$228
Coliforms, Fecal	C	9221E (2006)	$228
		9222D (2006)	$228
Coliforms, Total and *E. coli*, by Colilert (ONPG-MUG)	C and Z	9223B (2004) and IDEXX	$152
Coliforms, Total, and *E. coli*, by Colisure	C2 and Z7	9223B (2004) and IDEXX	$152
Coliforms, Total, by Membrane Filtration	C	9222B (2006)	$228
		9222C (2006)	$228
Coliforms, Total and *E. coli*, by Membrane Filtration	A4.36	1604	$228
Coliforms, Total, and *E. coli* by Colitag	C and Z5	9223B (2004) and CPI	$152
Coliforms, Total, and *E. coli* by Modified Colitag	C and D8	9223B (2004) and Modified Colitag	$152
Coliforms, Total, and *E. coli* by E.colite	C and Z8	9223B (2004) and Charm Sciences, Inc.	$152
Coliforms, Total, and *E. coli* by m-ColiBlue24 Test	C and Z6	9222H (2006) and Hach 10029	$228
Coliforms, Total, and *E. coli* by Readycult Coliforms 100 Presence/Absence	C and Z14	9223B (2004) and EM Science	$152
Coliforms, Total, and *E. coli* by MF using Chromocult Coliform Agar	C and Z15	9223B (2004) and EM Science	$152
Coliforms, Total, by Multiple Tube Fermentation	C	9221B and C (2006)	$228
Coliforms, Total, by Presence/Absence	C	9221D (2006)	$228
Escherichia coli	C	9222G (2006)	$228
	X	Tube Procedure	$228
		Membrane Filter Procedure	$228
Cryptosporidium	A4.32	1622	$381
Giardia and *Cryptosporidium*	A4.39	1623	$381
	A4.33	1623.1	$381
Heterotrophic Plate Count	C	9215B (2004)	$152
	Z3	SimPlate	$152
Heterotrophic Plate Count (For Bottled Water Only)	C	9215D (2004)	$152
Microscopic Particulate Analysis	P1	910/9-92-029	$228
Viruses	P2	600/R-95/178	$381
Coliphage	A4.37	1601	$228
	A4.38	1602	$228
2. Inorganic Chemistry and Physical Properties of Drinking Water			
Description	**Reference**	**Method/s**	**Fee Per Method**
Alkalinity	C	2320B (2011)	$19
Asbestos	A4.30	100.1 (9/83)	$503
	A4.31	100.2 (6/94)	$503
Bromate	A4.1	317.0 (2.0)	$76
	A4.3	326.0 (1.0)	$76
	A5	300.1 (1.0)	$26
		321.8 (1.0)	$152
	A4.41	302.0 (1.0)	$26
Bromide	A2	300.0 (2.1)	$26
	A4.1	317.0 (2.0)	$76
	A4.3	326.0 (1.0)	$76
	A5	300.1 (1.0)	$26

Calcium	A1	200.7 (4.4)	$10
	A4.10	200.5 (4.2)	$10
	C	3111B (2011)	$26
		3500-Ca B (2011)	$76
Carbon, Dissolved Organic	A4.12	415.3 (1.1)	$76
	A4.13	415.3 (1.2)	$76
	C	5310B (2011)	$39
		5310C (2011)	$39
		5310D (2011)	$39
Carbon, Total Organic	A4.12	415.3 (1.1)	$76
	A4.13	415.3 (1.2)	$76
	C	5310B (2011)	$39
		5310C (2011)	$39
		5310D (2011)	$39
Chloride	A2	300.0 (2.1)	$26
	A5	300.1 (1.0)	$26
	C	4500-Cl B (2011)	$39
		4500-Cl D (2011)	$39
		4110B (2011)	$26
Chloramine	C	4500-Cl F (2011)	$39
		4500-Cl G (2011)	$76
Chlorate	A5	300.1 (1.0)	$26
Chlorine, Total Residual and Free	A4.44	334.0 (9/2000)	$39
	C	4500-Cl D (2011)	$39
		4500-Cl E (2011)	$39
		4500-Cl F (2011)	$39
		4500-Cl G (2011)	$39
		4500-Cl H (2011)	$39
		4500-Cl I (2011)	$39
Chlorine Dioxide	A4.4	327.0 (1.1)	$76
	C	4500-ClO_2 E (2011)	$39
	C7	ChlordioX Plus	$79
Chlorite	A2	300.0 (2.1)	$26
	A4.1	317.0 (2.0)	$76
	A4.3	326.0 (1.0)	$76
	A4.4	327.0 (1.1)	$76
	A5	300.1 (1.0)	$26
	C	4500-ClO_2 E (2011)	$39
	C7	ChlordioX Plus	$79
Color	C	2120B (2011)	$32
Corrosivity	C	2330B (2010)	$39
Cyanide	A2	335.4 (1.0)	$76
	A6	QuikChem 10-204-00-1-X (2.1)	$76
	C	4500-CN B (2011)	$7
		4500-CN C (2011)	$13
		4500-CN E (2011)	$76
		4500-CN F (2011)	$76
	E7	Kelada-01	$76
Cyanide, Available/Amenable	A4.26	OIA-1677 DW	$76
	C	4500-CN G (2011)	$76
	I	D6888-04	$76

Fluoride	A2	300.0 (2.1)	$26
	A3	380-75WE (2/76)	$39
	A5	300.1 (1.0)	$26
	C	4500-F B (2011)	$39
		4500-F C (2011)	$26
		4500-F D (2011)	$39
		4500-F E (2011)	$39
		4110B (2011)	$26
Hardness	A1	200.7 (4.4), Sum of Ca and Mg as their carbonates	$10
	C	2340 B (2011), Sum of Ca and Mg as their carbonates	$10
		2340 C (2011)	$39
Magnesium	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
	A4.10	200.5 (4.2)	$10
	C	3111B (2011)	$26
		3500-Mg B (1997)	$76
Methylene Blue Active Substances	C	5540 C (2011)	$39
Nitrate	A2	300.0 (2.1)	$26
		353.2 (2.0)	$76
	A5	300.1 (1.0)	$26
	C	4500-NO_3 D (2011)	$39
		4500-NO_3 E (2011)	$76
		4500-NO_3 F (2011)	$76
		4110B (2011)	$26
Nitrite	A2	300.0 (2.1)	$26
		353.2 (2.0)	$76
	A5	300.1 (1.0)	$26
	C	4500-NO_2 B (2011)	$76
		4500-NO_3 E (2011)	$76
		4500-NO_3 F (2011)	$76
		4110B (2011)	$26
Odor	C	2150B (2011)	$32
Orthophosphate	A2	300.0 (2.1)	$26
		365.1 (2.0)	$76
	A5	300.1 (1.0)	$26
	C	4500-P E (2011)	$76
		4500-P F (2011)	$76
		4110B (2011)	$26
Ozone	C	4500-O_3 B (2011)	$39
Perchlorate	A4.2	314.1 (1.0)	$76
	A4.5	331.0 (1.0)	$76
	A4.11	332.0 (1.0)	$76
	A5	314.0 (1.0)	$76
pH (Hydrogen Ion)	A	150.1	$39
		150.2	$39
	C	4500-H B (2011)	$39
Residue, Filterable (TDS)	C	2540C (2011)	$39
Sediment Concentration	I	D 3977-97	$13

Silica	A1	200.7 (4.4)	$10
	A4.10	200.5 (4.2)	$10
	C	4500-SiO_2 C (2011)	$76
		4500-SiO_2 D (2011)	$76
		4500-SiO_2 E (2011)	$76
Sodium	A1	200.7 (4.4)	$10
	A4.10	200.5 (4.2)	$10
	C	3111B (2011)	$26
Specific Conductance	C	2510B (2011)	$39
Sulfate	A2	300.0 (2.1)	$26
		375.2 (2.0)	$76
	A5	300.1 (1.0)	$26
	C	4500-SO_4 C (2011)	$76
		4500-SO_4 D (2011)	$76
		4500-SO_4 E (2011)	$76
		4500-SO_4 F (2011)	$76
		4110B (2011)	$26
Temperature, Degrees Celsius	C	2550 (2010)	$13
Turbidity, Nephelometric (NTU)	A2	180.1 (2.0)	$39
	C	2130B (2011)	$39
UV-Absorption at 254 nm	A4.12	415.3 (1.1)	$76
	A4.13	415.3 (1.2)	$76
	C	5910B (2011)	$76
3. Metals in Drinking Water			
a. Sample Preparation for Metals in Drinking Water			
Description	**Reference**	**Method/s**	**Fee Per Method**
Acid Extractable Metals	C	3030C (2004)	$7
Microwave Assisted Digestion	C	3030K (2004)	$7
Nitric Acid	C	3030E (2004)	$7
Nitric Acid/Hydrochloric Acid	C	3030F (2004)	$7
Nitric Acid/Perchloric Acid	C	3030H (2004)	$7
Nitric Acid/Perchloric Acid/Hydrofluoric Acid	C	3030I (2004)	$7
Nitric Acid/Sulfuric Acid	C	3030G (2004)	$7
Preliminary Filtration	C	3030B (2004)	$7
b. Methods to Analyze Metals in Drinking Water			
Description	**Reference**	**Method/s**	**Fee Per Method**
Aluminum	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3111D (2011)	$26
		3113B (2010)	$26
Antimony	A1	200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3113B (2010)	$26

Arsenic	A1	200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3113B (2010)	$26
		3114B (2011)	$76
Barium	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
	A4.10	200.5 (4.2)	$10
	C	3111D (2011)	$26
		3113B (2010)	$26
Beryllium	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3113B (2010)	$26
Cadmium	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3113B (2010)	$26
Chromium, Hexavalent by IC	A4.43	218.7 (1.0)	$116
Chromium, Total	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3113B (2010)	$26
Cobalt	A1	200.8 (5.4)	$26
Copper	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3111B (2011)	$26
		3113B (2010)	$26
Iron	A1	200.7 (4.4)	$10
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3111B (2011)	$26
		3113B (2010)	$26
Lead	A1	200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3113B (2010)	$26
Manganese	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
		200.9 (2.2)	$26
	C	3111B (2011)	$26
		3113B (2010)	$26
Mercury	A	245.2	$52
	A1	245.1 (3.0)	$52
		200.8 (5.4)	$26
	C	3112B (2011)	$52

Molybdenum	A1	200.8 (5.4)	$26
Nickel	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3111B (2011)	$26
		3113B (2010)	$26
Selenium	A1	200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3113B (2010)	$26
		3114B (2011)	$76
Silver	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
		200.9 (2.2)	$26
	A4.10	200.5 (4.2)	$10
	C	3111B (2011)	$26
		3113B (2010)	$26
Strontium	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
	C	3500-Sr B (2011)	$26
		3500-Sr C (2011)	$20
		3500-Sr D (2011)	$26
Thallium	A1	200.8 (5.4)	$26
		200.9 (2.2)	$26
Uranium	A1	200.8 (5.4)	$26
	C	7500 U-C (2011)	$206
	I	D3972-97, 02	$206
		D5174-97, 02	$206
Vanadium	A1	200.8 (5.4)	$26
Zinc	A1	200.7 (4.4)	$10
		200.8 (5.4)	$26
	A4.10	200.5 (4.2)	$10
	C	3111B (2011)	$26
4. Organic Chemistry of Drinking Water			
a. Methods to Comply with National Primary Drinking Water Regulations			
Description	**Reference**	**Method/s**	**Fee Per Method**

Disinfectant Byproducts, Solvents and Pesticides: Alachlor Atrazine Dibromochloropropane Endrin Ethylene dibromide Heptachlor Heptachlorepoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Simazine 1,1,2-Trichloroethane Trichloroethylene 1,1,1-Trichloroethane Tetrachloroethylene Carbontetrachloride Chloroform Bromodichloromethane Dibromochloromethane Bromoform Total Trihalomethanes	D3	551.1 (1.0)	$116
VOCs by GC: Benzene Carbon Tetrachloride (mono) Chlorobenzene o-Dichlorobenzene para-Dichlorobenzene 1,2-Dichloroethane cis-1,2-Dichloroethylene Trans-1,2-Dichloroethylene Dichloromethane 1,2-Dichloropropane Ethylbenzene Styrene Tetrachloroethylene 1,1,1-Trichlorothane Trichloroethylene Toluene 1,2,4-Trichlorobenzene 1,1-Dichloroethylene 1,1,2-Trichloroethane Vinyl chloride Xylenes, Total Chloroform Bromodichloromethane Dibromochloromethane Bromoform Total Trihalomethanes	D3	502.2 (2.1)	$152

VOCs by GC-MS: Benzene Carbon Tetrachloride (mono) Chlorobenzene o-Dichlorobenzene para-Dichlorobenzene 1,2-Dichloroethane cis-1,2-Dichloroethylene Trans-1,2-Dichloroethylene Dichloromethane 1,2-Dichloropropane Ethylbenzene Styrene Tetrachloroethylene 1,1,1-Trichlorothane Trichloroethylene Toluene 1,2,4-Trichlorobenzene 1,1 Dichloroethylene 1,1,2-Trichloroethane Vinyl Chloride Xylenes, Total Chloroform Bromodichloromethane Dibromochloromethane Bromoform Total Trihalomethanes	A4.19	524.4	$152
	D3	524.2 (4.1)	$152
VOCs by GC: Benzene Carbon Tetrachloride (mono) Chlorobenzene o-Dichlorobenzene para-Dichlorobenzene 1,2-Dichloroethane cis-1,2-Dichloroethylene Trans-1,2-Dichloroethylene Dichloromethane 1,2-Dichloropropane Ethylbenzene Styrene Tetrachloroethylene 1,1,1-Trichlorothane Trichloroethylene Toluene 1,2,4-Trichlorobenzene 1,1-Dichloroethylene 1,1,2-Trichloroethane Vinyl chloride Xylenes, Total Chloroform Bromodichloromethane Dibromochloromethane Bromoform Total Trihalomethanes Dibromochloropropane Ethylenedibromide	A4.20	524.3 (1.0)	$152
EDB/DBCP	D3	504.1 (1.1)	$116

Pesticides and PCBs by GC (Microextraction): Alachlor Atrazine Chlorodane Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Simazine Toxaphene	D3	505 (2.1)	$152
Phthalate and Adipate Esters by GC-PID: Di (2-ethylhexyl)adipate Di (2-ethylhexyl)phthalate	D3	506 (1.1)	$116
Pesticides by GC-NPD Atrazine Alachlor Simazine	D3	507 (2.1)	$116
Chlorinated Pesticides by GC-ECD: Chlordane Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Toxaphene	D3	508 (3.1)	$152

Chlorinated Pesticides, Herbicides, Organohalides by GC-ECD: Alachlor Atrazine Chlorodane Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Simazine Toxaphene	D3	508.1(2.0)	$152
Organics by GC-MS: Alachlor Atrazine Benzo(a)pyrene Chlorodane Di (2-ethylhexyl)adipate Di (2-ethylhexyl)phthalate Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Pentachlorophenol Simazine Toxaphene	D3	525.2 (2.0)	$152
1, 4-Dioxane by GC/MS	A4.21	522	$152
Carbamates by HPLC/Post Column: Carbofuran Oxamyl	A4.8	531.2 (1.0)	$116
	D3	531.1 (3.1)	$116
Chlorinated Acids and Dalapon by GC-ECD: 2,4-D Dalapon Dinoseb Pentachlorophenol Picloram Silvex (2,4,5-TP)	A4.6	515.4 (1.0)	$116
	A5	515.3 (1.0)	$116
	D	515.1 (4.0)	$116
Chlorinated Acids By GC-ECD 2,4-D Dinoseb Pentachlorophenol Picloram Silvex (2,4,5-TP)	D3	515.2 (1.1)	$116
Haloacetic Acids, Bromate and Dalapon By IC-ESI-MS/MS	A4.18	557 (1.0)	$152

Perfluorinated Compounds by LC/MS/MS	A4.40	537 (1.1)	$152
Hormones by LC/MS/MS	A4.42	539	$152
PAHs By HPLC/UV/FL: Benzo(a)pyrene	D1	550 (7/90)	$116
		550.1 (7/90)	$116
Haloacetic Acids and Dalapon by GC-ECD: Dalapon Monochloracetic Acid Dichloracetic Acid Trichloroacetic Acid Monobromoacetic Acid Dibromoacetic Acid HAA5	D2	552.1 (1.0)	$116
	D3	552.2 (1.0)	$116
Haloacetic Acids: Monochloroacetic Acid Dichloroacetic Acid Trichloroacetic Acid Monobromoacetic Acid Dibromoacetic Acid Dalapon HAA5	A4.9	552.3 (1.0)	$116
Disinfection Byproducts by Micro Liquid-Liquid Extraction/ GC-ECD	C8	6251B (1994)	$116
Chlorinated Acids By HPLC/PDA/UV: 2,4-D Dinoseb Pentachlorophenol Picloram Silvex (2,4,5-TP)	D2	555 (1.0)	$116
1,4 Dioxane by GC/MS	A4.21	522 (1.0)	$152
Dioxin	A4.22	1613 Rev B (10/94)	$258
Diquat	A5	549.2 (1.0)	$116
Endothall	D2	548.1 (1.0)	$116
Glyphosate	D1	547 (7/90)	$116
PCBs (as decachlorobiphenyl)	D	508A (1.0)	$152
b. Additional Methods and Compounds Required by Other Programs			
Description	**Reference**	**Method/s**	**Fee Per Method**
Disinfectant Byproducts, Solvents and Pesticides	D3	551.1 (1.0)	$26
VOCs by GC	D3	502.2 (2.1)	$26
VOCs by GC-MS	A4.20	524.3 (1.0)	$26
	D3	524.2 (4.1)	$26
EDB/DBCP	D3	504.1 (1.1)	$26
Pesticides and PCBs by GC (Microextraction)	D3	505 (2.1)	$26
Phthalate and Adipate Esters by GC-PID	D3	506 (1.1)	$26
Pesticides by GC-NPD	D3	507 (2.1)	$26
Chlorinated Pesticides by GC-ECD	D3	508 (3.1)	$26
Chlorinated Pesticides, Herbicides, Organohalides by GC-ECD	D3	508.1(2.0)	$26
Organics by GC-MS	D3	525.2 (2.0)	$26
Carbamates by HPLC/Post Column	A4.8	531.2 (1.0)	$26
	D3	531.1 (3.1)	$26
Chlorinated Acids and Dalapon by GC-ECD	A4.6	515.4 (1.0)	$26
	A5	515.3 (1.0)	$26
	D	515.1 (4.0)	$26
Chlorinated Acids By GC-ECD	D3	515.2 (1.1)	$26
PAHs By HPLC/UV/FL	D1	550 (7/90)	$26
		550.1 (7/90)	$26

Haloacetic Acids and Dalapon by GC-ECD	D2	552.1 (1.0)	$26
	D3	552.2 (1.0)	$26
Chlorinated Acids By HPLC/PDA/UV	D2	555 (1.0)	$26
Dioxins and Furans	A4.22	1613 Rev B (10/94)	$65
Paraquat	A5	549.2 (1.0)	$26
Benzidines and Nitrogen Compounds	D2	553 (1.1)	$116
Carbonyl Compounds	D2	554 (1.0)	$116
Phenols	A5	528 (1.0)	$152
Phenylurea Compounds	A5	532 (1.0)	$116
Selected Semivolatiles	A5	526 (1.0)	$152
Pesticides and Flame Retardants by GCMS	A4.7	527 (1.0)	$152
Explosives and Related Compounds	A4.15	529 (1.0)	$152
Acetanilide Degradation Products	A4.16	535 (1.1)	$194
Acetanilide Parent Compound	D3	525.2 (2.0)	$26
Nitrosamines by MS/MS	A4.14	521 (1.0)	$194
5. Radiochemistry of Drinking Water			
Description	**Reference**	**Method/s**	**Fee Per Method**
Cesium	B	p. 4	$206
	C	7500-Cs B (2011)	$206
		7120 (2011)	$206
	J	R-1110-76	$206
		R-1111-76	$206
	L	901	$206
		901.1	$206
	U	Ga-01-R	$206
	W	p. 92	$206
Gamma Emitters	C	7500-Cs B (2011)	$206
		7500-I B (2011)	$206
		7120 (2011)	$206
	L	901.1	$206
		901.0	$206
		902.0	$206
	U	Ga-01-R	$206
	W	p. 92	$206
Gross Alpha	B	EPA 00-02	$206
	C	7110C (2011)	$206
	L	900.0	$206
	V	00-01	$206
		00-02	$206
Gross Alpha and Beta	B	p. 1	$206
	C	7110B (2011)	$206
	J	R-1120-76	$206
	L	900.0	$206
	V	00-01	$206
	W	p. 1	$206

Iodine	B	p. 6, p. 9	$206
	C	7120 (2011)	$206
		7500-I B (2011)	$206
		7500-I C (2011)	$206
		7500-I D (2011)	$206
	L	901.1	$206
		902.0	$206
	U	Ga-01-R	$206
	W	p. 92	$206
Radium 226	B	p. 13, p. 16	$206
	C	7500-Ra B (2011)	$206
		7500-Ra C (2011)	$206
	L	903.0	$206
		903.1	$206
	U	Ra-04	$206
		Ra-05	$206
	V	EPA Ra-03	$206
		EPA Ra-04	$206
	W	p. 19	$206
Radium 228	B	p. 24	$206
	C	7500-Ra D (2011)	$206
	L	904.0	$206
	V	Ra-05	$206
	W	p. 19	$206
Strontium	B	p. 29	$206
	C	7500-Sr B (2011)	$206
	J	R-1160-76	$206
	L	905.0	$206
	U	Sr-01	$206
		Sr-02	$206
	V	Sr-04	$206
	W	p. 65	$206
Tritium	B	p. 34	$206
	C	7500-^{3}H B (2011)	$206
	J	R-1171-76	$206
	L	906.0	$206
	V	H-02	$206
	W	p.87	$206
Uranium	A1	200.8 (5.4)	$26
	A7	D5174-97, 02	$206
	C	7500-U B (2011)	$206
		7500-U C (2011)	$206
	J	R-1180-76	$206
		R-1181-76	$206
		R-1182-76	$206
	L	908.0	$206
		908.1	$206
	U	U-02	$206
		U-04	$206
	V	00-07	$206
	W	p. 33	$206

Replacement Check List
For rules filed within the
1st Quarter
January 1 - March 31, 2016

THE ARIZONA ADMINISTRATIVE CODE

Within the stated calendar quarter, this Chapter contains all rules made, amended, repealed, renumbered, and recodified; or rules that have expired or were terminated due to an agency being eliminated under sunset law. These rules were either certified by the Governor's Regulatory Review Council or the Attorney General's Office; or exempt from the rulemaking process, and filed with the Office of the Secretary of State. Refer to the historical notes for more information. Please note that some rules you are about to remove may still be in effect after the publication date of this Supplement. Therefore, all superseded material should be retained in a separate binder and archived for future reference.

Title 18. Environmental Quality

Chapter 4. Department of Environmental Quality - Safe Drinking Water

Supplement Release Quarter: 16-1

Sections, Parts, Exhibits, Tables or Appendices modified

R18-4-102, R18-4-103, R18-4-105, R18-4-121, R18-4-126, R18-4-210

REMOVE Supp. 08-3	REPLACE with Supp. 16-1
Pages: 1 - 37	Pages: 1 - 38

Agency:

The department's contact person who can answer questions about rules in Supp. 16-1:

Arizona Department of Environmental Quality
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Disclaimer: Please be advised the person listed is the contact of record as submitted in the rulemaking package for this supplement. The contact and other information may have changed and is provided as a public courtesy.

PUBLISHER
Arizona Department of State
Office of the Secretary of State, Public Services Division

ARTICLE 1. PRIMARY DRINKING WATER REGULATIONS

R18-4-101. Authority and Purpose

A. This Chapter is created under the authority of A.R.S. Title 49, Chapter 2, Article 9, and the federal Safe Drinking Water Act, 42 U.S.C. 300f through 300j-26.

B. The purposes of this Chapter include the following:

1. To protect the public health and welfare by ensuring that all potable water distributed or sold to the public by public water systems is free from unwholesome, poisonous, deleterious, or other foreign substances, and filth or disease-causing substances or organisms; and
2. To enable the state to maintain primary enforcement responsibility of the Safe Drinking Water Act, including the requirements of 40 CFR 141 and 142.

Historical Note

Former Section R9-20-504 repealed, new Section R9-20-504 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-504 amended, renumbered as Section R9-20-501, then renumbered as Section R18-4-101 effective October 23, 1987 (Supp. 87-4). R18-4-101 recodified to R18-5-101 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-102. Incorporation by Reference of 40 CFR 141 and 142

A. Unless otherwise specified in this Chapter, all references to regulations in 40 CFR 141 and 142 in this Chapter refer to the July 1, 2014, version of the regulations. Copies of the incorporated material are available for review at the Arizona Department of Environmental Quality, 1110 W. Washington St., Phoenix, AZ, 85007, and are available from the U.S. General Printing office at http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.

B. A reference to a federal statute or regulation in a federal statute or regulation incorporated by reference in this Chapter shall refer to and incorporate by reference the referenced statute or regulation as of the date specified in subsection (A), unless the referenced statute or regulation is incorporated by reference elsewhere in this Chapter in a modified form, in which case the reference shall be to the statute or regulation as incorporated in this Chapter.

C. Documents incorporated by reference in a federal statute or regulation incorporated by reference in this Chapter are also incorporated by reference in this Chapter, as of the date specified in the federal statute or regulation.

D. A federal rule incorporated by reference in this Chapter shall include all "Effective Date Notes" associated with the federal rule.

E. The term "State" or "primacy agency" in the text of a federal statute or regulation incorporated by reference in this Chapter shall mean the Arizona Department of Environmental Quality unless otherwise noted.

Historical Note

Adopted as Section R9-20-502 and renumbered as Section R18-4-102 effective October 23, 1987 (Supp. 87-4). R18-4-102 recodified to R18-5-102 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3). Amended by final rulemaking at 22 A.A.R. 379, effective April 2, 2016 (Supp. 16-1).

R18-4-103. General – 40 CFR 141, Subpart A

A. 40 CFR 141, Subpart A (40 CFR 141.1 through 141.6), is incorporated by reference as of the date specified in R18-4-102, except for the changes listed in this Section; this incorporation does not include any later amendments or editions.

B. The definition of "State" in 40 CFR 141.2 is not incorporated by reference. In addition to the terms defined in A.R.S. §§ 49-201 and 49-351, and 40 CFR 141.2, in this Chapter, unless otherwise specified, the terms listed below have the following meanings.

"Air-gap separation" means a physical separation between the discharge end of a supply pipe and the top rim of its receiving vessel of at least 1 inch or twice the diameter of the supply pipe, whichever is greater.

"ANSI/NSF Standard 60" means American National Standards Institute/NSF International Standard 60 - 2014a, Drinking Water Treatment Chemicals - Health Effects, November 17, 2014, incorporated by reference and on file with the Department. This material is available from NSF International, 789 N. Dixboro Road, P.O. Box 130140, Ann Arbor, MI 48113-0140, USA; (734) 769-8010; http://www.nsf.org. This incorporation by reference includes no future editions or amendments.

"ANSI/NSF Standard 61" means American National Standards Institute/NSF International Standard 61 - 2014a, Drinking Water System Components - Health Effects, October 19, 2014, incorporated by reference and on file with the Department. This material is available from NSF International, 789 N. Dixboro Road, P.O. Box 130140, Ann Arbor, MI 48113-0140, USA; (734) 769-8010; http://www.nsf.org. This incorporation by reference includes no future editions or amendments.

"Backflow" means a reverse flow condition that causes water or mixtures of water and other liquids, gases, or substances to flow back into the distribution system. Backflow can be created by a difference in water pressure (backpressure), a vacuum or partial vacuum (backsiphonage), or a combination of both.

"Backflow-prevention assembly" means a mechanical device used to prevent backflow.

"Capacity" means the overall capability of a water system to consistently produce and deliver water meeting all national and state primary drinking water regulations in effect when new or modified operations begin. Capacity includes the technical, managerial, and financial capacities of the water system to plan for, achieve, and maintain compliance with applicable national and state primary drinking water regulations.

"Capacity development" means improving public water system finances, management, infrastructure, and opera-

tions, so that the public water system can provide safe drinking water consistently, reliably, and cost-effectively.

"Capacity development report" means an annual report adopted by the Department that describes progress made in improving technical, managerial, or financial capacity of public water systems in Arizona.

"Cross connection" means a physical connection between a public water system and any source of water or other substance that may lead to contamination of the water provided by the public water system through backflow.

"Distribution system" means a pipeline, appurtenance, device, and facility of a public water system that conducts water from a source or water treatment plant to persons served by the system.

"Department" means the Arizona Department of Environmental Quality.

"Double check valve assembly" means a backflow-prevention assembly that contains two independently acting check valves with tightly closing, resilient-seated shut-off valves on each end of the assembly and properly located, resilient-seated test cocks.

"Elementary business plan" means a document containing all of the items necessary for a complete review of the technical, managerial, and financial capacity of a new public water system under Article 6 of this Chapter.

"Entry point to the distribution system" means a compliance sampling point anywhere on a finished water line that is representative of a water source and located after the well, surface water intake, treatment plant, storage tank, or pressure tank, whichever is last in the process flow, but prior to where the water is discharged into the distribution system and prior to the first service connection.

"EPA" means the United States Environmental Protection Agency.

"Exclusion" means a waiver granted by the Department under R18-4-219 from a requirement of this Chapter that is not a requirement contained in a federal drinking water law.

"Exemption" means a form of temporary relief from a maximum contaminant level or treatment technique granted by the Department to a public water system, pending installation and operation of treatment facilities, acquisition of an alternate source, or completion of improvements in treatment processes to bring the system into compliance with drinking water regulations.

"Financial capacity" means the ability of a public water system to acquire and manage sufficient financial resources for the system to achieve and maintain compliance with the federal Safe Drinking Water Act.

"Groundwater system" means a public water system that is supplied solely by groundwater that is not under the direct influence of surface water.

"Lead-free" has the same meaning prescribed in A.R.S. § 49-353(B).

"Major stockholder" means a person who has 20% or more ownership interest in a public water system.

"Master priority list" means a list created by the Department that ranks public water systems according to the criteria in R18-4-803.

"Monitoring assistance program" means the program established by A.R.S. § 49-360 to assist public water systems with mandatory monitoring for contaminants and administered by the Department under 18 A.A.C. 4.

"Operational assistance" means professional or financial assistance provided to a public water system to improve the technical, managerial, or financial operations of the public water system.

"Protected water source" means a groundwater source that:

- Meets the requirements of A.A.C. R18-5-502(D);
- Is not located within 100 feet of a drywell as defined by A.R.S. § 49-331(3), and
- Is not located within 100 feet of a condition that can constitute an environmental nuisance as described in A.R.S. § 49-141(A).

"Reduced pressure principle backflow-prevention assembly" means a backflow-prevention assembly that contains two independently acting check valves; a hydraulically operating, mechanically independent pressure differential relief valve located between the two check valves; tightly closing, resilient seated shut-off valves on each end of the check valve assembly; and properly located resilient seated test cocks.

"Service connection" means a location at the meter or, in the absence of a meter, at the curbstop or building inlet.

"Service line" means the water line that runs from the corporation stop at a water main to the building inlet, including any pigtail, gooseneck, or fitting.

"State" means the Arizona Department of Environmental Quality, except during any time period during which the Department does not have primary enforcement responsibility pursuant to Section 1413 of the Act, the term "State" means the Regional Administrator of EPA Region 9.

"System evaluation assistance" means assistance provided to assess the status of the public water system's technical, managerial, and financial components, with emphasis on infrastructure status.

"Technical assistance" means operational assistance, system evaluation assistance, or both.

"Treatment" means a process that changes the quality of water by physical, chemical, or biological means.

"Treatment technique" means a treatment procedure promulgated by EPA in lieu of an MCL.

"Variance" means relief from a maximum contaminant level or treatment technique granted by the Department to a public water system when characteristics of a system's raw water source preclude the system from complying with maximum contaminant levels prescribed by drinking water regulations, despite application of best technology, treatment techniques, or other means available to the system.

"Water main" means a pipe that is exterior to buildings and is used to distribute drinking water to more than one property.

"Water Infrastructure Finance Authority" means the entity created under A.R.S. § 49-1201 et seq. to provide financial assistance to political subdivisions, Indian tribes, and eligible drinking water facilities for constructing, acquiring, or improving wastewater treatment facilities, drinking water facilities, nonpoint source projects, and other related water quality facilities and projects.

"Water treatment plant" means a process, device, or structure used to improve the physical, chemical, or biological quality of the water in a public water system. A booster chlorination facility that is designed to maintain an effective disinfectant residual in water in the distribution system is not a water treatment plant.

C. 40 CFR 141.4, entitled "variances and exemptions," is incorporated by reference subject to the following modifications:
1. The phrase "entity with primary enforcement responsibility" is changed to "Department."
2. When reviewing and acting on requests for variances and exemptions, the Department shall act in accordance with the procedures at 42 U.S.C. 300g-4 and 300g-5 (2004) of the Act (Public Health Service Act §§ 1415 and 1416), including:
   a. The Department shall require a public water system granted a variance under subsection (C) to comply with the requirements in a compliance schedule as expeditiously as practicable.
   b. The Department shall promptly notify EPA of all variances and exemptions granted by the Department in the manner specified in the Act.
   c. The Department shall enforce a schedule or other requirement on which a variance or exemption is conditioned under 42 U.S.C. 300g-3 and A.R.S. § 49-354, as if the schedule or other requirement is part of a national primary drinking water regulation incorporated by reference in this Chapter.
   d. "Treatment technique requirement," for the purpose of subsection (C), means a requirement in a national primary drinking water regulation which specifies for a contaminant, in accordance with 42 U.S.C. 300f(1)(C)(ii), each treatment technique known to lead to a reduction in the level of the contaminant sufficient to satisfy the requirements of 42 U.S.C. 300g-1(b).
   e. If the Department grants a variance or exemption, the Department shall prescribe:
      i. A compliance schedule that includes increments of progress or measures to develop an alternative source of water supply; and
      ii. An implementation schedule that includes such control measures as the Department deems necessary for each contaminant.

D. 40 CFR 142, 142.2, 142.20, and Subparts E, F, G, and K, are incorporated by reference as of the date specified in R18-4-102, with the following changes; this incorporation does not include any later amendments or editions. The following substitutions are to be applied in the listed order.
1. 40 CFR 142.46, 142.302, 142.313 are not incorporated by reference.
2. 40 CFR 142.20(a), (b). The phrase "States with primary enforcement responsibility" is changed to "the Department"; the second sentences in 142.20(a) and 142.20(b) are deleted.
3. 40 CFR 142.60(b), 142.61(b). The phrase "Administrator in a state that does not have primary enforcement responsibility or a state with primary enforcement responsibility (primacy state) that issues variances" is changed to "Department."
4. 40 CFR 142.40(a), (b); 142.41; 142.50(a); 142.51. The phrase "a State that does not have primary enforcement responsibility" is changed to "Arizona".
5. 40 CFR 142.60(b), (c), (d); 142.61(b), (c). The phrase "Administrator or [`primacy' or `primary'] state that issues variances" is changed to "Department."
6. 40 CFR 142.60(b), (d); 142.61(b), (d); 142.62(e), (g)(1); 142.65(a)(4). The phrase "Administrator or [the] primacy state" is changed to "Department"; the phrase "Administrator's or primacy state's" is changed to "Department's."
7. In 40 CFR 142, Subpart K:
   a. The phrases "[`a' or `the'] State or [the] Administrator," "Administrator or State," "the public water system, State and the Administrator," and "a State exercising primary enforcement responsibility for public water systems (or the Administrator for other systems)" are changed to "the Department."
   b. 40 CFR 142.301. The last sentence is deleted.
   c. 40 CFR 142.303(b). The phrase "a State exercising primary enforcement responsibility for public water systems" is changed to "the Department."
   d. 40 CFR 142.306(b)(2). The phrase "(or by the Administrator in States which do not have primary enforcement responsibility)" is deleted.
   e. 40 CFR 142.308(a), 142.309(c). The phrase "the State, Administrator, or [the] public water system as directed by the State or Administrator" is changed to "the Department or the public water system, as determined by the Department."
   f. 40 CFR 142.308(b). The text of this subsection is replaced by the following: "At the time of proposal, the Department must publish a notice in the *Arizona Administrative Register* or a newspaper or newspapers of wide circulation in the affected region of the State. This notice shall include the information listed in paragraph (c) of this section."
   g. 40 CFR 142.308(c)(7). The phrase "the primacy agency" is changed to "the Department."
8. In all parts of 40 CFR 142 incorporated by reference other than Subpart K, the term "Administrator" is changed to "Department"; the pronoun "he" is changed to "the Department"; and the pronoun "his" is changed to "the Department's."
9. In all parts of 40 CFR 142 incorporated by reference, the term "a state" or "the state" is changed to "the Department"; the term "the State's" is changed to "the Department's."
10. 40 CFR 142.62(h)(3). The term "State-approved" is changed to "Department-approved."
11. In 40 CFR 142.44(b). The text of this subsection is replaced by the following: "Public notice of an opportunity for hearing on a variance schedule shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed schedule, and shall meet the notice requirements of A.A.C. R18-1-401."
12. In 40 CFR 142.54(b). The text of this subsection is replaced by the following: "Public notice of an opportunity for hearing on an exemption schedule shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed schedule,

and shall meet the notice requirements of A.A.C. R18-1-401."

13. 40 CFR 142.44(d), 142.54(d). The third, fourth, and fifth sentences of these subsections are deleted.
14. 40 CFR 142.44(e), 142.54(e). The text of these subsections is replaced by the following: "A hearing convened pursuant to paragraph (d) of this section shall be conducted according to the procedural requirements of A.A.C. R18-1-402."

E. 40 CFR 141.5 is not incorporated by reference.

Historical Note

Former Section R9-20-505 repealed, new Section R9-20-505 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-505 amended, renumbered as Section R9-20-503, then renumbered as Section R18-4-103 effective October 23, 1987 (Supp. 87-4). R18-4-103 recodified to R18-5-103 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-103 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3). Amended by final rulemaking at 22 A.A.R. 379, effective April 2, 2016 (Supp. 16-1).

R18-4-104. Maximum Contaminant Levels – 40 CFR 141, Subpart B

40 CFR 141, Subpart B (40 CFR 141.11 through 141.13), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-506 repealed, new Section R9-20-506 adopted effective November 1, 1979 (Supp. 79-6). Amended effective March 19, 1980 (Supp. 80-2). Former Section R9-20-506 amended, renumbered as Section R9-20-504, then renumbered as Section R18-4-104 effective October 23, 1987 (Supp. 87-4). R18-4-104 recodified to R18-5-104 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Amended under R1-1-109(B) to correct a manifest clerical error; subsection R18-4-104(J)(3) moved to its proper place as subsection R18-4-104(K)(3); compare at 8 A.A.R. 3086, July 26, 2002 (Supp. 03-1). Section R18-4-104 renumbered to R18-4-211; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-105. Monitoring and Analytical Requirements – 40 CFR 141, Subpart C

A. 40 CFR 141, Subpart C (40 CFR 141.21 through 141.29 and Appendix A), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. 40 CFR 141.21(c)(2), 141.21(d) and 141.21(f) are not incorporated by reference.

C. 40 CFR 141.22: the last sentence of 141.22(a) is replaced by the following: "Turbidity measurements shall be made using analytical methods approved by EPA and the Arizona Department of Health Services."

D. 40 CFR 141.23(k) is not incorporated by reference.

E. 40 CFR 141.24(f)(17), 141.24(f)(20), and 141.24(h)(19) are not incorporated by reference.

F. 40 CFR 141.25: the following text replaces the text of 40 CFR 141.25(a) and (b): "Analysis for the following contaminants shall be conducted to determine compliance with 40 CFR 141.66 (radioactivity) using analytical methods approved by EPA and the Arizona Department of Health Services:

1. Naturally occurring contaminants: gross alpha and beta, gross alpha, radium 226, radium 228, and uranium.
2. Man-made contaminants: radioactive cesium, radioactive iodine, radioactive strontium 89, 90, tritium, and gamma emitters."

G. 40 CFR 141.27, alternate analytical techniques, is not incorporated by reference; the following text is substituted in its place: "The use of an alternate analytical technique approved by EPA and the Arizona Department of Health Services shall not decrease the frequency of monitoring required by this Chapter."

H. 40 CFR 141.28:

1. In 40 CFR 141.28(a), the term "State" is changed to "Arizona Department of Health Services."
2. In 40 CFR 141.28(b), the term "State" is changed to "Arizona Department of Health Services or Arizona Department of Environmental Quality."
3. A new subsection (c) is added: "A laboratory that performs drinking water analysis in Arizona shall be certified by EPA or the Arizona Department of Health Services."

Historical Note

Former Section R9-20-507 repealed, new Section R9-20-507 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-507 amended, renumbered as Section R9-20-505, then renumbered as Section R18-4-105 effective October 23, 1987 (Supp. 87-4). R18-4-105 recodified to R18-5-105 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section repealed by final rulemaking at 8 A.A.R. 3046, effective May 6, 2002 (Supp. 02-3). New Section R18-4-105 renumbered from R18-4-105.01 at 8 A.A.R. 2756, effective June 6, 2002 (Supp. 02-3). Subsection citation in part 4 of Table 2 corrected (Supp. 04-1). Section R18-4-105 and Tables 1 through 4 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3). Amended by final rulemaking at 22 A.A.R. 379, effective April 2, 2016 (Supp. 16-1).

R18-4-105.01. Renumbered

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3046, effective May 6, 2002 (Supp. 02-3). Section renumbered to R18-4-105 at 8 A.A.R. 2756, effective June 6, 2002 (Supp. 02-3).

R18-4-106. Reporting and Recordkeeping – 40 CFR 141, Subpart D

A. 40 CFR 141, Subpart D (40 CFR 141.31 through 141.35), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions. The requirements in the following subsections are in addition to the requirements of 40 CFR 141, Subpart D.

B. Department reporting forms. A public water system shall report to the Department the results of all analyses completed under this Chapter on Department-approved forms.

C. Direct reporting. A public water system may contract with a laboratory or another agent to report monitoring results to the Department, but the public water system remains legally responsible for compliance with reporting requirements.

Historical Note

Adopted effective March 19, 1980 (Supp. 80-2). Former Section R9-20-508 amended, renumbered as Section R9-20-506, then renumbered as Section R18-4-106 effective October 23, 1987 (Supp. 87-4). Amended subsection (F) effective November 30, 1988 (Supp. 88-4). R18-4-106 recodified to R18-5-106 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-106 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-107. Special Regulations, Including Monitoring Regulations and Prohibition on Lead Use – 40 CFR 141, Subpart E

40 CFR 141, Subpart E (40 CFR 141.40 through 141.43), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-509 repealed, new Section R9-20-509 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-509 amended, renumbered as Section R9-20-507, then renumbered as Section R18-4-107 effective October 23, 1987 (Supp. 87-4). Amended subsection (B) effective November 30, 1988 (Supp. 88-4). R18-4-107 recodified to R18-5-107 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-107 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-108. Maximum Contaminant Level Goals and Maximum Residual Disinfectant Level Goals – 40 CFR 141, Subpart F

40 CFR 141, Subpart F (40 CFR 141.50 through 141.55), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-510 repealed, new Section R9-20-510 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-510 amended, renumbered as Section R9-20-508, then renumbered as Section R18-4-108 effective October 23, 1987 (Supp. 87-4). Amended subsection (D) effective November 30, 1988 (Supp. 88-4). R18-4-108 recodified to R18-5-108 (Supp. 95-2). New Section R18-4-108 renumbered from R18-4-109 and amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-108 renumbered to R18-4-205; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-109. Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels – 40 CFR 141, Subpart G

40 CFR 141, Subpart G (40 CFR 141.60 through 141.66), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-511 repealed, new Section R9-20-511 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-511 amended, renumbered as Section R9-20-509, then renumbered as Section R18-4-109 effective October 23, 1987 (Supp. 87-4). R18-4-109 recodified to R18-5-109 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Former Section R18-4-109 renumbered to R18-4-108; new Section R18-4-109 made by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-109 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-110. Filtration and Disinfection – 40 CFR 141, Subpart H

A. 40 CFR 141, Subpart H (40 CFR 141.70 through 141.76), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. The text of 40 CFR 141.74(a) is replaced by the following: "*Analytical requirements*. In order to demonstrate compliance with the requirements of this Part, public water systems shall use analytical methods approved by EPA and the Arizona Department of Health Services for monitoring under this Part."

Historical Note

Former Section R9-20-512 repealed, new Section R9-20-512 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-512 amended, renumbered as Section R9-20-510, then renumbered as Section R18-4-110 effective October 23, 1987 (Supp. 87-4). Amended subsection (B) effective November 30, 1988 (Supp. 88-4). R18-4-110 recodified to R18-5-110 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-110 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-111. Control of Lead and Copper – 40 CFR 141, Subpart I

A. 40 CFR 141, Subpart I (40 CFR 141.80 through 141.91), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. The first sentence of 40 CFR 141.89(a) is replaced by the following: "Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted using analytical methods approved by EPA and the Arizona Department of Health Services. Analyses under this section for lead and copper shall be conducted by laboratories that have been certified by EPA or the Arizona Department of Health Services."

C. The text of 40 CFR 141.89(a)(1) is not incorporated by reference.

Historical Note

Adopted as Section R9-20-511 and renumbered as Section R18-4-111 effective October 23, 1987 (Supp. 87-4). R18-4-111 recodified to R18-5-111 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-111 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-112. Use of Non-Centralized Treatment Devices – 40 CFR 141, Subpart J

40 CFR 141.101 is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-517 repealed, new Section R9-20-517 adopted effective November 1, 1979 (Supp. 79-6). Amended effective March 19, 1980 (Supp. 80-2). Former Section R9-20-517 amended, renumbered as Section R9-20-512, then renumbered as Section R18-4-112 effective October 23, 1987 (Supp. 87-4). R18-4-112 recodified to R18-5-112 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-112 renumbered to R18-4-219; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-113. Treatment Techniques – 40 CFR 141, Subpart K

40 CFR 141, Subpart K (40 CFR 141.110 through 141.111), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Adopted as Section R9-20-513 and renumbered as Section R18-4-113 effective October 23, 1987 (Supp. 87-4). Amended subsections (A) and (C) effective November 30, 1988 (Supp. 88-4). R18-4-113 recodified to R18-5-113 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-113 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-114. Disinfectant Residuals, Disinfection Byproducts, and Disinfection Byproduct Precursors – 40 CFR 141, Subpart L

A. 40 CFR 141, Subpart L (40 CFR 141.130 through 141.135), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. 40 CFR 141.131 is not incorporated by reference.

C. In order to demonstrate compliance with the requirements of this Chapter:

1. Public water systems shall use analytical methods approved by EPA and the Arizona Department of Health Services for monitoring under this Chapter; and
2. Analyses of drinking water samples shall be conducted by laboratories that have been certified by EPA or the Arizona Department of Health Services.

D. A party approved by the Department shall measure daily chlorite samples at the entrance to the distribution system.

E. A public water system may measure residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide by using N,N-diethyl-p-phenylenediamine (DPD) colorimetric test kits. A party approved by the Department shall measure residual disinfectant concentration.

Historical Note

Former Section R9-20-519 repealed, new Section R9-20-519 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-519 amended, renumbered as Section R9-20-514, then renumbered as Section R18-4-114 effective October 23, 1987 (Supp. 87-4). R18-4-114 recodified to R18-5-114 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-114 renumbered to R18-4-202; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-115. Renumbered

Historical Note

Former Section R9-20-520 repealed, new Section R9-20-520 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-520 amended, renumbered as Section R9-20-515, then renumbered as Section R18-4-115 effective October 23, 1987 (Supp. 87-4). R18-4-115 recodified to R18-5-115 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-115 renumbered to R18-4-215 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-116. Renumbered

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-116 renumbered to R18-4-204 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-117. Consumer Confidence Reports – 40 CFR 141, Subpart O

40 CFR 141, Subpart O (40 CFR 141.151 through 141.155 and Appendix A), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-117 renumbered to R18-4-209; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-118. Enhanced Filtration and Disinfection - Systems Serving 10,000 or More People – 40 CFR 141, Subpart P

40 CFR 141, Subpart P (40 CFR 141.170 through 141.175), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-118 renumbered to R18-4-208; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-119. Public Notification of Drinking Water Violations – 40 CFR 141, Subpart Q

40 CFR 141, Subpart Q (40 CFR 141.201 through 141.211 and Appendices A, B, and C), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R18-4-215 renumbered R18-4-119 pursuant to R1-1-404 effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-119 renumbered to R18-4-213; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-120. Renumbered

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective December 8, 1998 (Supp. 98-4). Section R18-4-

120 renumbered to R18-4-206 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-121. Ground Water Rule – 40 CFR 141, Subpart S

A. 40 CFR Part 141, Subpart S (40 CFR 141.400 through 141.405), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. 40 CFR 141.402(a)(4) is modified as follows:
Consecutive and wholesale systems.
(i) In addition to the other requirements of this paragraph (a), a consecutive ground water system that has a total coliform-positive sample, collected under § 141.21(a) until March 31, 2016 or under §§ 141.854 through 141.857 beginning April 1, 2016, within 24 hours of being notified of the total coliform-positive sample must:
(A) Notify the wholesale system(s) and,
(B) Collect a sample from its consecutive connection with the wholesale ground water system and analyze it for a fecal indicator under paragraph (c) of this section.
(ii) If the sample collected under paragraph (a)(4)(i)(B) of this section is fecal indicator-positive, within 24 hours:
(A) The consecutive system must notify the wholesale ground water system, and
(B) Both systems must consult with the Department on additional sampling to meet the requirements of paragraph (a)(3) of this section.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-121 renumbered to R18-4-201; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3). Amended by final rulemaking at 22 A.A.R. 379, effective April 2, 2016 (Supp. 16-1).

R18-4-122. Enhanced Filtration and Disinfection – Systems Serving Fewer Than 10,000 People – 40 CFR 141, Subpart T

40 CFR 141, Subpart T (40 CFR 141.500 through 141.571), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-122 renumbered to R18-4-207; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

Appendix A. Renumbered

Historical Note

New Appendix made by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Appendix A repealed; new Appendix A made by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Appendix A renumbered to a position after R18-4-125 at 8 A.A.R. 2756, effective June 6, 2002 (Supp. 02-3).

R18-4-123. Initial Distribution System Evaluations – 40 CFR 141, Subpart U

40 CFR 141, Subpart U (40 CFR 141.600 through 141.605), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-123 renumbered to R18-4-216; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-124. Stage 2 Disinfection Byproducts Requirements – 40 CFR 141, Subpart V

40 CFR 141, Subpart V (40 CFR 141.620 through 141.629), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Adopted effective February 9, 1996 (Supp. 96-1). Section R18-4-124 renumbered to R18-4-203; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-125. Enhanced Treatment For *Cryptosporidium* – 40 CFR 141, Subpart W

40 CFR 141, Subpart W (40 CFR 141.700 through 141.723), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Adopted effective February 9, 1996 (Supp. 96-1). Section R18-4-125 renumbered to R18-4-214; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-126. Revised Total Coliform Rule 40 CFR Part 141, Subpart Y

A. 40 CFR Part 141, Subpart Y (40 CFR 141.851 through 141.861), is incorporated by reference as of the date specified in R18-4-102, subject to modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. 40 CFR 141.851(d), 141.852, 141.853(c)(2), and 141.854(h)(2)(i) – (ii) are not incorporated by reference.

Historical Note

New Section made by final rulemaking at 22 A.A.R. 379, effective April 2, 2016 (Supp. 16-1).

Appendix A. Repealed

Historical Note

Appendix A renumbered from a position after R18-4-122 to a position after R18-4-125 at 8 A.A.R. 2756, effective June 6, 2002 (Supp. 02-3). Subsection citation in Appendix A corrected (Supp. 04-1). Appendix A repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

ARTICLE 2. STATE DRINKING WATER REGULATIONS

R18-4-201. Enforcement

A. A water supplier who constructs, operates, or maintains a public water system contrary to the provisions of this Chapter or fails to maintain the quality of water within the public water system as required by this Chapter is subject to the actions provided in A.R.S. §§ 49-142 and 49-354.

B. If the Department determines that a public water system is not in compliance with any of the provisions of this Chapter, the Department may issue an order to the water supplier that requires the public water system to make no further service connections or that limits the number of service connections until the Department determines that the public water system achieves compliance.

C. The Department may determine compliance or initiate enforcement action based upon analytical results and other

information compiled by the Department or other federal, state, or local agencies.

D. The Department shall round compliance data to the same number of significant figures as the MCL in question to determine compliance with the MCL.

Historical Note

Former Section R9-8-212 repealed, new Section R9-8-212 adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended effective November 2, 1982 (Supp. 82-6). Amended by renumbering subsections (P) thru (W) as (Q) thru (X) and adding a new subsection (P) effective January 6, 1984 (Supp. 84-1). Former Section R9-8-212 renumbered without change as Section R18-4-212 (Supp. 87-3). Former Section R18-4-212 amended and renumbered as Section R18-4-201 effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-201 repealed; new Section renumbered from R18-4-121 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-202. Certified Operators

A water supplier of a public water system shall ensure that:

1. The water system is operated in accordance with 18 A.A.C. 5, Article 1.
2. The water system is operated by an operator who is properly certified pursuant to 18 A.A.C. 5, Article 1, to operate each water treatment plant in the system and the distribution system.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-202 repealed; new Section renumbered from R18-4-114 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-203. Operation and Maintenance

A water supplier shall maintain and keep in proper operating condition all facilities used in production, treatment, and distribution of the water supply so as to comply with the requirements of this Chapter and 18 A.A.C. 5.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-203 renumbered to R18-4-210; new Section renumbered from R18-4-124 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-204. Emergency Operation Plans

A. The water supplier for a community water system shall develop and keep an emergency operations plan in an easily accessible location. At a minimum, the emergency operations plan shall detail the steps that the community water system will take to assure continuation of service in the following emergency situations:

1. Loss of a source;
2. Loss of water supply due to major component failure;
3. Damage to power supply equipment or loss of power;
4. Contamination of water in the distribution system from backflow;
5. Collapse of a reservoir, reservoir roof, or pumphouse structure;
6. A break in a transmission or distribution line; and
7. Chemical or microbiological contamination of the water supply.

B. The emergency operations plan required by subsection (A) shall address all of the following:

1. Provision of alternate sources of water during the emergency;
2. Notice procedures for regulatory agencies, news media, and users;
3. Disinfection and testing of the distribution system once service is restored;
4. Identification of critical system components that shall remain in service or be returned to service quickly;
5. Critical spare parts inventory; and
6. Staff training in emergency response procedures.

C. In the event that an emergency situation that is listed in subsection (A) occurs, the Emergency Operation Plan shall be implemented by the community water system.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-204 repealed; new Section renumbered from R18-4-116 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-205. Sample Collection, Preservation, and Transportation

A public water system shall collect each sample using the sample preservation, container, and maximum holding time procedure prescribed by the Arizona Department of Health Services in 9 A.A.C. 14, Article 6, and approved by EPA for the analytical method used.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-205 repealed; new Section renumbered from R18-4-108 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-206. Monitoring and Sampling by the Department and MAP Contractors

A. The Department may take samples from a public water system. If the Department takes a sample at a public water system, the Department shall forward a copy of the analytical results to the water supplier.

B. If a public water system fails to monitor, the Department may monitor to determine compliance with MCLs. A public water system shall not use Department monitoring to satisfy monitoring requirements prescribed by this Chapter. This subsection does not apply to monitoring under the monitoring assistance program.

C. A contractor shall take compliance samples for the categories of contaminants listed in A.R.S. § 49-360(A) for a public water system that participates in the monitoring assistance program.

D. The sampling location for chemical contaminants must be the entry point to the distribution system or the compliance monitoring point specified by the Department, unless otherwise specified in this Chapter. An entry point to a distribution system is the point at which water is discharged into the distribution system from a well, storage tank, pressure tank, or water treatment plant.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Section R18-4-206

repealed; new Section renumbered from R18-4-120 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-207. Entry and Inspection of Public Water Systems

A. A Department inspection shall comply with A.R.S. § 41-1009.

B. 40 CFR 142.34(a) is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions. The phrase "Administrator" is changed to "Department."

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 5067, effective October 16, 2001 (Supp. 01-4). Section R18-4-207 repealed; new Section renumbered from R18-4-122 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-208. Sanitary Surveys

A. Each public water system shall undergo sanitary surveys in accordance with a schedule established by the Department, or when the Department determines that a sanitary survey is necessary to assure compliance with this Chapter.

B. A sanitary survey shall be performed for a public water system at least once every five years; however, a non-community water system using only protected and disinfected ground water shall have a sanitary survey performed at least every 10 years.

C. When establishing a sanitary survey schedule or determining that a sanitary survey is required prior to the next scheduled sanitary survey, the Department shall consider:

1. The quality and quantity of the source water; and
2. Whether the system is properly designed, maintained and operated.

D. Proper operation and maintenance means operating and maintaining the public water system in compliance with this Chapter; 18 A.A.C. 5, Article 5; and in conformance with the applicable portions of Engineering Bulletin No. 10, "Guidelines for the Construction of Water Systems," incorporated by reference in A.A.C. R18-5-502.

E. The Department shall review the results of a sanitary survey to determine whether the existing monitoring frequency is adequate, and whether any additional measures are required in order to ensure that the system will remain in compliance with this Chapter.

F. In conducting a sanitary survey of a groundwater system, information on sources of contamination within a delineated wellhead protection area shall be considered by the Department instead of collecting new information, if the information was collected since the last time the system was subject to a sanitary survey.

G. A water supplier shall make the changes to the design, operation, and maintenance of the public water system specified by the Department in order to bring the system into compliance with the requirements of this Chapter, and shall make the changes within the time limits set by the Department.

H. A sanitary survey of a public water system shall be made by a representative of the Department, a professional engineer or sanitarian who is registered in Arizona, a certified water system operator, or other person approved by the Department.

I. A sanitary survey shall comply with A.R.S. § 41-1009 when conducted by the Department.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-208 repealed; new Section renumbered from R18-4-118 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-209. Unsafe Supplies

The Department may order a public water system to disconnect a source to protect the public health from an acute health risk that is attributable to the source. An acute health risk is posed when one of the following occurs:

1. A violation of a MCL for total coliform and fecal coliform or *E. coli* are present that is attributable to the source,
2. A violation of the MCL for nitrate or nitrite that is attributable to the source, or
3. An occurrence of a waterborne disease outbreak that is attributable to the source.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 7 A.A.R. 5067, effective October 16, 2001 (Supp. 01-4). Section R18-4-209 repealed; new Section renumbered from R18-4-117 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-210. Total Coliform; Special Events

A. A water system that does not meet the definition of a public water system, but serves a large number of persons for a short duration of time, such as a special event, must take corrective action as required in R18-4-126 after receiving a positive coliform result, including taking additional samples until all samples test negative for total coliform and negative for E.coli if:

1. The total number of user-days exceeds 600.
2. A user-day is calculated by multiplying the number of days the event will run by the average number of persons expected to be served each day.

B. The water system shall submit a minimum of two sample results to the Department at least seven days before the beginning of the special event. The water system shall submit a minimum of one additional sample result to the Department for each day of the special event.

Historical Note

Adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended subsection (C) and added subsection (D) effective January 6, 1984 (Supp. 84-1). Former Section R9-8-210 renumbered without change as Section R18-4-210 (Supp. 87-3). Repealed effective June 30, 1989 (Supp. 89-2). New Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section repealed by final rulemaking at 8 A.A.R. 3046, effective May 6, 2002 (Supp. 02-3). New Section R18-4-210 renumbered from R18-4-203 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3). Amended by final rulemaking at 22 A.A.R. 379, effective April 2, 2016 (Supp. 16-1).

R18-4-211. Reporting Requirements

A. Cross connection incidents. A public water system shall submit a written cross connection incident report to the Department and the local county health department within five days of the occurrence of a cross connection problem that results in contamination of water provided by the public water system. The report shall address all of the following:

1. Date and time of discovery of the cross connection incident,

effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-213 repealed; new Section renumbered from R18-4-119 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-214. Hauled Water

A. All hauled water for delivery to a public water system shall be obtained from a source that is approved pursuant to 18 A.A.C. 5, Article 5, or a regulated public water system.

B. Materials or products that come into contact with the water shall comply with R18-4-213(B).

C. Roof hatches shall be fitted with a watertight cover.

D. A bottom drain valve or other provisions to allow complete drainage and cleaning of a water transport container shall be provided.

E. Hoses that are used to deliver drinking water shall be equipped with a cap and shall remain capped when not in use.

F. A water hauler shall, at all times, maintain a residual free chlorine level of 0.2 mg/l to 1.0 mg/l in the water that is hauled in a water transport container. A chlorine disinfectant shall be added at the time water is loaded into the container. The residual free chlorine level shall be measured each time water is off-loaded from the container. The water hauler shall maintain a log of all on-loading, chlorine disinfectant additions and residual-free chlorine measurements. Such records shall be maintained for at least three years and made available to the Department for review upon request.

G. A water transport container shall be for hauling drinking water only. The container shall be plainly and conspicuously labeled "For Drinking Water Use Only."

Historical Note

Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-214 repealed; new Section renumbered from R18-4-125 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-214.01. Repealed

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-214.01 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-214.02. Repealed

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3046, effective January 1, 2004 (Supp. 02-3). R18-4-214.02 including Table 1 and Table 2 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-215. Backflow Prevention

A. A public water system shall protect its system from contamination caused by backflow through unprotected cross-connections by requiring the installation and periodic testing of backflow-prevention assemblies. Required backflow-prevention assemblies shall be installed as close as practicable to the service connection.

B. A public water system shall ensure that a backflow-prevention assembly is installed whenever any of the following occur:

1. A substance harmful to human health is handled in a manner that could permit its entry into the public water system. These substances include chemicals, chemical or biological process waters, water from public water supplies that has deteriorated in sanitary quality, and water that has entered a fire sprinkler system. A Class 1 or Class 2 fire sprinkler system is exempt from the requirements of this Section;
2. A source of water supply exists on the user's premises that is not accepted as an additional source by the public water system or is not approved by the Department;
3. An unprotected cross-connection exists or a cross-connection problem has previously occurred within a user's premises; or
4. There is a significant possibility that a cross-connection problem will occur and entry to the premises is restricted to the extent that cross-connection inspections cannot be made with sufficient frequency or on sufficiently short notice to ensure that unprotected cross-connections do not exist.

C. Unless a cross-connection problem is specifically identified, or as otherwise provided in this Section, the requirements of this Section shall not apply to single-family residences used solely for residential purposes.

D. A backflow-prevention assembly required by this Section shall comply with the following:

1. If equipped with test cocks, it shall have been issued a certificate of approval by:
   a. The University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC-FCCCHR), or
   b. A third-party certifying entity that is unrelated to the product's manufacturer or vendor, and is approved by the Department.
2. If not equipped with test cocks, it shall be approved by a third-party certifying entity that is unrelated to the product's manufacturer or vendor and is approved by the Department.

E. The minimum level of backflow protection that is provided to protect a public water system shall be the level recommended in Section 7.2 of the Manual of Cross-Connection Control, Ninth Edition, USC-FCCCHR, KAP-200 University Park MC-2531, Los Angeles, CA, 90089-2531, December 1993, (and no future editions or amendments), incorporated by reference and on file with the Department. The types of backflow prevention that may be required, listed in decreasing order according to the level of protection they provide, include: an air-gap separation (AG), a reduced pressure principle backflow prevention (RP) assembly, a pressure vacuum breaker (PVB) assembly, and a double check valve (DC) assembly. Nothing contained in this Section shall prevent a public water system from requiring the use of a higher level of protection than the level required by this subsection.

1. A public water system may make installation of a required backflow-prevention assembly a condition of service. A user's failure to comply with this requirement shall be sufficient cause for the public water system to terminate water service.
2. Specific installation requirements for backflow prevention include the following:
   a. Any backflow prevention required by this Section shall be installed in accordance with the manufacturer's specifications.
   b. For an AG installation, all piping between the user's connection and the receiving tank shall be entirely visible unless otherwise approved in writing by the public water system.

c. An RP assembly shall not be installed in a meter box, pit, or vault unless adequate drainage is provided.
d. A PVB assembly may be installed for use on a landscape water irrigation system if the irrigation system conforms to all of the criteria listed below. An RP assembly is required whenever any of the criteria are not met.
i. The water use beyond the assembly is for irrigation purposes only;
ii. The PVB is installed in accordance with the manufacturer's specifications;
iii. The irrigation system is designed and constructed to be incapable of inducing backpressure; and
iv. The injection of chemical pesticides and fertilizers, chemigation, is not used or provided in the irrigation system.

F. Each backflow-prevention assembly required by this Section shall be tested at least annually, or more frequently if directed by the public water system or the Department. Each assembly shall also be tested after installation, relocation, or repair. An assembly shall not be placed in service unless it has been tested and is functioning as designed. The following provisions shall apply to the testing of backflow-prevention assemblies:
1. Testing shall be in accordance with procedures described in Section 9 of the Manual of Cross-Connection Control. The public water system shall notify the water user when testing of backflow-prevention assemblies is needed. The notice shall specify the date by which the testing must be completed and the results forwarded to the public water system.
2. Testing shall be performed by a person who is currently certified as a "general" tester by the California-Nevada Section of the American Water Works Association (CA-NV Section, AWWA), the Arizona State Environmental Technical Training (ASETT) Center, or other certifying authority approved by the Department.
3. When a backflow-prevention assembly is tested and found to be defective, it shall be repaired or replaced in accordance with the provisions of this Section.

G. A public water system shall maintain records of backflow-prevention assembly installations and tests performed on backflow-prevention assemblies in its service area. Records shall be retained by the public water system for at least three years and shall be made available for review by the Department upon request. These records shall include an inventory of backflow-prevention assemblies required by this Section and, for each assembly, all of the following information:
1. Assembly identification number and description,
2. Location,
3. Date of tests,
4. Description of repairs and recommendations for repairs made by the tester, and
5. The tester's name and certificate number.

H. A public water system shall submit a written cross-connection incident report to the Department and the local health authority within five business days after a cross-connection problem occurs that results in contamination of the public water system. The report shall address all of the following:
1. Date and time of discovery of the unprotected cross-connection,
2. Nature of the cross-connection problem,
3. Affected area,
4. Cause of the cross-connection problem,
5. Public health impact,
6. Date and text of any public health advisory issued,
7. Each corrective action taken, and
8. Date of completion of each corrective action.

I. An individual with direct responsibility for implementing a backflow prevention program for a water system serving more than 50,000 persons, or an individual with direct responsibility for implementing a backflow prevention program for a for a water system serving 50,000 or fewer persons if the Department has determined that such a need exists, shall be licensed as a "cross-connection control program specialist" by the CA-NV Section, AWWA, the ASETT Center, or another certifying authority approved by the Department.

Historical Note

Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-215 repealed; new Section renumbered from R18-4-115 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-216. Vending Machines

An owner of a water vending machine shall be responsible for the proper operation of each water vending machine. The owner shall do all of the following:
1. Clean and maintain each water vending machine according to the manufacturer's recommendations;
2. Retain maintenance and cleaning records for one year;
3. Have analyses performed at least once every six months for total coliform bacteria. Results of such analyses shall be retained for one year. If a sample is positive for total coliform, the water vending machine shall be removed from service, and all components shall be cleaned, replaced, or serviced. The water vending machine shall not be placed back into service until another total coliform bacteria analysis is performed and the result is negative; and
4. Maintain in operable condition all ultraviolet, ozone, or other disinfection components and automatic disabling capabilities built into the vending machine for use in the event of a disinfection system malfunction.

Historical Note

Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-216 repealed; new Section renumbered from R18-4-123 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-217. Use of Blending to Achieve Compliance with Maximum Contaminant Levels

A. A public water system may use blending to achieve compliance with a MCL if all of the following requirements are met:
1. The public water system has obtained the Department's written approval for a blending plan that includes the following elements:
a. Detailed drawings and schematics that show flow, concentrations, and controls;
b. Proposed automatic or electronic devices that will be incorporated to ensure that the blend remains in the desired range or shuts off the offending source or triggers an alarm when the blend falls out of the desired range;

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-602. Elementary Business Plan

A. To become a new public water system, an owner shall file an elementary business plan for review and approval by the Department, on a form provided by the Department. The elementary business plan shall meet the requirements of and contain all information required in R18-4-603, R18-4-604, and R18-4-605.

B. An owner shall not commence operation of a public water system without Department approval under R18-4-606.

C. If the owner of a new public water system fails to submit a complete application, the Department shall suspend the review process and send a notice of incomplete elementary business plan to the owner. The owner shall submit the missing information to the Department within 60 days of the date of the notice of incomplete elementary business plan. If missing information is not received at the Department within the 60 day time period, the Department shall deny the elementary business plan and return the elementary business plan to the owner.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-603. Technical Capacity Requirements

An owner of a new public water system shall submit the following to the Department for a determination of technical capacity:

1. Documentation of a drinking water source adequacy minimum of 50 gallons of water per person per day for a period of 100 years, a 100 year water availability designation from the Arizona Department of Water Resources (ADWR), or a Certificate of Assured Water Supply from ADWR;
2. Documentation that the drinking water served to the public will meet the safe drinking water standards of this Chapter;
3. Documentation that infrastructure, treatment, and storage design meets the requirements of this Chapter, Articles 2, 3, and 5;
4. Documentation that the public water system is operated by a certified operator of the sufficient grade and type; and
5. Documentation that contains at least the following:
   a. Day 1 to final build-out technical and engineering needs projections;
   b. Proposed water system design specification and proposed uses including commercial and domestic use phases;
   c. Information describing the life of the plant;
   d. A demonstration that all site-specific components meet nationally recognized standards, such as those established by the American Water Works Association, National Sanitation Foundation, or Underwriter's Laboratory;
   e. Manufacturers' specifications on components used in the construction of the water system; and
   f. Corrective action plan to address site-specific component replacement or repair protocols based on manufacturer's recommendations or engineer's specification.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-604. Managerial Capacity Requirements

An owner of a new public water system shall submit the following information as part of the elementary business plan to the Department for a determination of managerial capacity:

1. A statement of how the public water system is owned, such as by major stockholders, board of directors, sole proprietor cooperative, governmental agency or district, corporation, limited partnership, or limited liability corporation;
2. Name, address, and phone number of owner;
3. Organizational chart of the new public water system;
4. Staff job descriptions and responsibilities;
5. Water system capital improvement plan up to the proposed full system build-out or for a five-year projection, whichever is greater;
6. Certified operator grade and type that will be required by the new public water system, based upon water system design specifications;
7. A statement of the intent to create a CWS or NTNCWS and any intent to transfer ownership of the public water system as part of the construction plan or project phase build-out;
8. Method to ensure provision of information listed in Appendix B, item 4 to subsequent owners; and
9. A disclosure statement signed by the owner setting forth the owner's responsibility to comply with the requirements of this Article and to disclose all information relevant to the operation of the public water system upon transfer of ownership as outlined in Appendix B.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-605. Financial Capacity Requirements

An owner of a new public water system shall submit information for a five-year financial capacity plan, or a financial capacity plan to the end of the build-out phase, whichever is longer, that demonstrates financial capacity and documents or contains all of the information listed in Appendices C and D.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-606. Review, Approval, Denial Process

A. The Department shall review and evaluate technical capacity, based upon the requirements in R18-4-603 and Appendix A.

B. The Department shall review and evaluate managerial capacity, based upon the requirements in R18-4-604 and Appendix A.

C. The Department shall accept a financial determination made by the Arizona Corporation Commission (ACC) as meeting

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 5. DEPARTMENT OF ENVIRONMENTAL QUALITY ENVIRONMENTAL REVIEWS AND CERTIFICATION

ARTICLE 1. CLASSIFICATION OF WATER AND WASTEWATER FACILITIES AND CERTIFICATION OF OPERATORS

Article 1, consisting of Sections R18-5-101 through R18-5-115, recodified from R18-4-101 through R18-4-115 (Supp. 95-2).

Article 5 renumbered as Article 1 consisting of Sections R18-4-101 through R18-4-115, effective October 23, 1987.

Former Sections R9-20-504 through R9-20-512, R9-20-517, R9-20-519, and R9-20-520 amended and renumbered as Article 5 consisting of Sections R9-20-501, R9-20-503 through R9-20-510, R9-20-512, R9-20-514, and R9-20-515; and new Sections R9-20-502, R9-20-511, and R9-20-513 adopted effective October 23, 1987.

Former Sections R9-20-501 through R9-20-503, R9-20-513 through R9-20-516, and R9-20-518 repealed effective October 23, 1987.

Section
R18-5-101. Definitions
R18-5-102. Applicability
R18-5-103. Certification Committee
R18-5-104. General Requirements
R18-5-105. Certification
R18-5-106. Examinations
R18-5-107. Certificate Renewal
R18-5-108. Certificate Expiration
R18-5-109. Denial, Suspension, Probation, and Revocation
R18-5-110. Reciprocity
R18-5-111. Repealed
R18-5-112. Experience and Education
R18-5-113. Classes of Facilities
R18-5-114. Grades of Wastewater Treatment Plants and Collection Systems
R18-5-115. Grades of Water Treatment Plants and Distribution Systems
R18-5-116. Initial Grading and Regrading of Facilities

ARTICLE 2. PUBLIC AND SEMIPUBLIC SWIMMING POOLS AND SPAS

Article 2, consisting of Sections R18-5-201 through R18-5-251 and Illustrations A and B, adopted effective February 19, 1998 (Supp. 98-1).

Section
R18-5-201. Definitions
R18-5-202. Applicability
R18-5-203. Design Approval
R18-5-204. Approval of Construction
R18-5-205. Prohibitions
R18-5-206. Water Source
R18-5-207. Construction Materials
R18-5-208. Maximum Bathing Load
R18-5-209. Shape
R18-5-210. Walls
R18-5-211. Freeboard
R18-5-212. Floors
R18-5-213. Entries and Exits
R18-5-214. Steps
R18-5-215. Ladders
R18-5-216. Recessed Treads
R18-5-217. Decks and Deck Equipment
R18-5-218. Lighting
R18-5-219. Water Depths
R18-5-220. Depth Markers
R18-5-221. Diving Areas and Equipment
R18-5-222. Prohibition Against Diving; Warning Signs
R18-5-223. Water Circulation System
R18-5-224. Piping and Fittings
R18-5-225. Pumps and Motors
R18-5-226. Drains and Suction Outlets
R18-5-227. Filters
R18-5-228. Return Inlets
R18-5-229. Gauges
R18-5-230. Flow Meter
R18-5-231. Strainers
R18-5-232. Overflow Collection Systems
R18-5-233. Vacuum Cleaning Systems
R18-5-234. Disinfection
R18-5-235. Cross-Connection Control
R18-5-236. Wastewater Disposal
R18-5-237. Lifeguard Chairs
R18-5-238. Lifesaving and Safety Equipment
R18-5-239. Rope and Float Lines
R18-5-240. Barriers
R18-5-241. Public Swimming Pools; Bathhouses and Dressing Rooms
R18-5-242. Semipublic Swimming Pools; Toilets and Lavatories
R18-5-243. Drinking Water Fountains
R18-5-244. Wading Pools
R18-5-245. Timers for Public and Semipublic Spas
R18-5-246. Air Blower and Air Induction Systems for Public and Semipublic Spas
R18-5-247. Water Temperature in Public and Semipublic Spas
R18-5-248. Special Use Pools
R18-5-249. Variances
R18-5-250. Inspections
R18-5-251. Enforcement
Ill. A. Diving Well Dimensions for Swimming Pools
Ill. B. Minimum Distance Requirements for Decks

ARTICLE 3. WATER QUALITY MANAGEMENT PLANNING

Article 3, consisting of Sections R18-5-301 through R18-5-303, adopted by final rulemaking at 7 A.A.R. 559, effective January 2, 2001 (Supp. 01-1).

Section
R18-5-301. Definitions
R18-5-302. Certified Areawide Water Quality Management Plan Approval
R18-5-303. Determination of Conformance

ARTICLE 4. SUBDIVISIONS

Former Title 9, Chapter 8, Article 11, consisting of Sections R9-8-1011 through R9-8-1015, R9-8-1021, R9-8-1026, R9-8-1027, R9-8-1031, and R9-8-1032 through R9-8-1036 renumbered as Title 18, Chapter 5, Article 4, consisting of Sections R18-5-401 through R18-5-411 (Supp. 89-2).

Section
R18-5-401. Definitions

R18-5-402. Approval of plans required
R18-5-403. Application for approval
R18-5-404. Size of lots
R18-5-405. Responsibility of subdivider
R18-5-406. Public water systems
R18-5-407. Public sewerage systems
R18-5-408. Individual sewage disposal systems
R18-5-409. Refuse disposal
R18-5-410. Condominiums
R18-5-411. Violations

ARTICLE 5. MINIMUM DESIGN CRITERIA

Article 5, consisting of R18-5-501 through R18-5-509, recodified from 18 A.A.C. 4, Article 5 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

Section
R18-5-501. Siting Requirements
R18-5-502. Minimum Design Criteria
R18-5-503. Storage Requirements
R18-5-504. Prohibition on the Use of Lead Pipe, Solder, and Flux
R18-5-505. Approval to Construct
R18-5-506. Compliance with Approved Plans
R18-5-507. Approval of Construction
R18-5-508. Record Drawings
R18-5-509. Modification to Existing Treatment Process

ARTICLE 1. CLASSIFICATION OF WATER AND WASTEWATER FACILITIES AND CERTIFICATION OF OPERATORS

R18-5-101. Definitions

The terms in this Article have the following meanings:

"Certified operator" or "operator" means an individual who holds a current certificate issued by the Department in the field of water or wastewater treatment, water distribution, or wastewater collection.

"Collection system" means a pipeline or conduit, a pumping station, a force main, or any other device or appurtenance used to collect and conduct wastewater to a central point for treatment and disposal.

"Department" means the Department of Environmental Quality or its designated representative.

"Director" means the Director of the Department of Environmental Quality or the Director's designated representative.

"Direct responsible charge" means day-to-day decision making responsibility for a facility or a major portion of a facility.

"Distribution system" means a pipeline, appurtenance, or device of a public water system that conducts water from a water source or treatment plant to consumers for domestic or potable use.

"Facility" means a water treatment plant, wastewater treatment plant, distribution system, or collection system.

"Industrial waste" means the liquid, gaseous, or solid waste produced at an industrial operation.

"Onsite operator" means an operator who visits a facility at least daily to ensure that the facility is operating properly.

"Onsite representative" means an individual located at a facility who monitors the daily operation at the facility and maintains contact with the remote operator regarding the facility.

"Operator" has the same meaning as certified operator, as defined in this Section.

"PDH" means professional development hour, as defined in this Section.

"Population equivalent" means the population that would contribute an equal amount of biochemical oxygen demand (BOD) computed on the basis of 0.17 pounds of five-day, 20-degree centigrade BOD per capita per day.

"Professional development hour" or "PDH" means one hour of participation in an organized educational activity related to engineering, biological or chemical sciences, a closely related technical or scientific discipline, or operations management.

"Public water system" has the same meaning prescribed in A.R.S. § 49-352.

"Qualifying discipline" means engineering, biology, chemistry, or a closely related technical or scientific discipline.

"Qualifying experience" means experience, skill, or knowledge obtained through employment that is applicable to the technical or operational control of all or part of a facility.

"Remote operator" means an operator who is not an onsite operator.

"Validated examination" means an examination that is approved by the Department after being reviewed to ensure that the examination is based on the class and grade of a system or facility.

"Wastewater" means sewage, industrial waste, and all other waterborne waste that may pollute any lands or waters of the state.

"Wastewater treatment plant" means a process, device, or structure used to treat or stabilize wastewater or industrial waste and dispose of the effluent.

"Water treatment plant" means a process, device, or structure used to improve the physical, chemical, or biological quality of the water in a public water system.

Historical Note

Former Section R9-20-504 repealed, new Section R9-20-504 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-504 amended, renumbered as Section R9-20-501, then renumbered as Section R18-4-101 effective October 23, 1987 (Supp. 87-4). R18-5-101 recodified from R18-4-101 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1). Amended by final rulemaking at 7 A.A.R. 5079, effective October 16, 2001 (Supp. 01-4). Amended by final rulemaking at 11 A.A.R. 998, effective April 2, 2005 (Supp. 05-1).

R18-5-102. Applicability

A. The rules in this Article apply to owners and operators of facilities in Arizona.

B. The following facilities are exempt from the requirements of this Article:

1. A public water system that meets the nonapplicability criteria in R18-4-102.
2. A septic tank or collection system that discharges to a septic tank.
3. A collection system that serves 2,500 or fewer persons and discharges into a facility that is operated by a certified operator.

4. A collection system that serves a nonresident population and discharges into a collection system operated by a certified operator.
5. An irrigation system, an industrial water facility, or a similar facility in which water is not used for domestic or drinking purposes.
6. An irrigation or industrial wastewater facility used to treat, recycle, or impound industrial or agricultural wastes within the boundaries of the industrial or agricultural property.
7. An industrial waste pretreatment facility in which treated wastewater is released to a collection system or wastewater treatment plant that is regulated by this Article.
8. A facility for treating industrial wastes that are not treatable by biological means.
9. A facility used to impound surface water before the water is conducted to a water treatment plant.
10. A wastewater treatment device that serves a home.

Historical Note

Adopted as Section R9-20-502 and renumbered as Section R18-4-102 effective October 23, 1987 (Supp. 87-4). R18-5-102 recodified from R18-4-102 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1). Amended by final rulemaking at 7 A.A.R. 5079, effective October 16, 2001 (Supp. 01-4).

R18-5-103. Certification Committee

A. Upon the effective date of this rule, the Director shall establish a certification committee to make recommendations and to provide the Department with technical advice and assistance related to this Article when requested.

B. The certification committee shall consist of 11 members as follows:
1. One employee of the Department;
2. One currently employed wastewater treatment plant operator with Grade 4 certification;
3. One currently employed water treatment plant operator with Grade 4 certification;
4. One currently employed wastewater collection system operator with Grade 4 certification;
5. One currently employed water distribution system operator with Grade 4 certification;
6. One faculty member teaching sanitary sciences at an Arizona university or community college;
7. One professional engineer, registered and residing in Arizona, engaged in consulting in the field of sanitary engineering;
8. One elected or appointed municipal official;
9. One representative of an investor-owned water or wastewater facility;
10. One representative of a small public water system; and
11. One currently employed remote operator representative.

C. The Director shall appoint each certification committee member.

D. The certification committee shall meet at least twice a year. At the first meeting of each calendar year, the certification committee shall select, from its membership, a chairperson and other officers as necessary. The Department's certification committee member is the executive secretary, who is responsible for keeping records of all meetings.

E. The term of a certification committee member is three years.

F. A meeting quorum consists of the chairperson or the chairperson's designated representative, the executive secretary or the executive secretary's designated representative, and three other members of the committee.

G. In the event of a vacancy caused by death, resignation, or removal for cause, the Director shall appoint a successor for the unexpired term.

H. A certification committee member may be reappointed, but a member shall not serve more than three consecutive terms.

Historical Note

Former Section R9-20-505 repealed, new Section R9-20-505 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-505 amended, renumbered as Section R9-20-503, then renumbered as Section R18-4-103 effective October 23, 1987 (Supp. 87-4). R18-5-103 recodified from R18-4-103 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1).

R18-5-104. General Requirements

A. A facility owner shall ensure that at all times:
1. A facility has an operator in direct responsible charge who is certified for the class of the facility and at or above the grade of the facility;
2. An operator makes all decisions about process control or system integrity regarding water quality or water quantity that affects public health; however, an administrator who is not a certified operator may make a planning decision regarding water quality or water quantity if the decision is not a direct operational process control or system integrity decision that affects public health;
3. An operator who is in direct responsible charge of more than one facility is certified for the class of each facility and at or above the grade of the facility with the highest grade;
4. An operator who replaces the operator in direct responsible charge does not begin operation of the facility before being certified for the applicable class and at or above the grade of the facility;
5. In the absence of the operator in direct responsible charge, the operator in charge of the facility is certified for the applicable class of facility and at a grade no lower than one grade below the grade of the facility; and
6. The names of all current operators are on file with the Department.

B. If the owner of a facility replaces an operator in direct responsible charge with another operator, the facility owner shall notify the Department in writing within 10 days of the replacement.

C. An operator shall notify the Department in writing within 10 days of the date the operator either ceases operation of a facility or commences operation of another facility.

D. An operator shall operate each facility in compliance with applicable state and federal law.

E. A facility owner shall ensure that a Grade 3 or Grade 4 facility has an onsite operator.

F. An operator holding certification in a particular class and grade may operate one or more Grade 1 or Grade 2 facilities as a remote operator if the facility owner ensures that the following requirements are met:
1. The remote operator is certified for the class of each facility and at or above the grade of each facility operated by the remote operator.
2. There is an onsite representative on the premises of each Grade 1 or Grade 2 facility, except for a Grade 1 water distribution system that serves fewer than 100 people, which is not required to have an onsite representative if the conditions of subsection (F)(8) are met. The onsite representative is not required to be an operator if the

facility has a remote operator who is certified at or above the grade of the facility.
3. The remote operator instructs, supervises, and provides written instructions to the onsite representative in the proper operation and maintenance of each facility and ensures that adequate records are kept.
4. The remote operator provides the onsite representative with a telephone number at which the remote operator can be reached at all times. If the remote operator is not available for any reason, the remote operator shall provide the onsite representative with the name and telephone number of a qualified substitute operator who will be available while the remote operator is not available.
5. The remote operator resides no more than 200 miles by ground travel from any facility that the remote operator serves.
6. The remote operator operates each facility in compliance with applicable state and federal laws.
7. The remote operator inspects a facility as often as necessary to ensure proper operation and maintenance, but in no case less than:
   a. Monthly for a Grade 1 or Grade 2 water treatment plant or distribution system that produces and distributes groundwater;
   b. Monthly for a Grade 1 wastewater treatment plant;
   c. Twice a month for a collection system that serves fewer than 2,500 people; and
   d. Weekly for a Grade 2 wastewater treatment plant or collection system that serves fewer than 1,000 people.
8. For a Grade 1 water distribution system that does not have an onsite representative and serves fewer than 100 people, the following conditions are met:
   a. The name and telephone number at which the remote operator can be reached is posted at the facility, enclosed with water bills, or otherwise made readily available to water users. If the remote operator is not available for any reason, the remote operator shall post at the facility the name and telephone number of a substitute operator of the applicable facility class and grade who will be available while the remote operator is not available;
   b. The remote operator or substitute operator resides no more than 200 miles by ground travel from the facility; and
   c. The remote operator inspects the facility weekly.

Historical Note

Former Section R9-20-506 repealed, new Section R9-20-506 adopted effective November 1, 1979 (Supp. 79-6). Amended effective March 19, 1980 (Supp. 80-2). Former Section R9-20-506 amended, renumbered as Section R9-20-504, then renumbered as Section R18-4-104 effective October 23, 1987 (Supp. 87-4). R18-5-104 recodified from R18-4-104 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1). Amended by final rulemaking at 7 A.A.R. 5079, effective October 16, 2001 (Supp. 01-4). Amended by final rulemaking at 11 A.A.R. 998, effective April 2, 2005 (Supp. 05-1).

R18-5-105. Certification

A. The Department shall issue an operator certificate to an applicant if the applicant:
1. Meets the experience and education requirements in R18-5-112 for the applicable class and grade,
2. Passes a written examination for the applicable class and grade, and
3. Has not had an operator's certificate revoked in Arizona or permanently revoked in another jurisdiction.

B. To apply for operator certification, an applicant shall submit or arrange to have submitted to the Department the following information, as applicable, in a format acceptable to the Department:
1. The applicant's full name, Social Security number, and operator number;
2. The applicant's current mailing address, home and work telephone numbers, fax number, and e-mail address;
3. The applicant's place of employment, including the facility identification number;
4. The class and grade of the facility where the applicant is employed;
5. Proof of successful completion of the examination for the applicable class and grade; and
6. Documentation of the applicant's experience and education required under R18-5-112.

Historical Note

Former Section R9-20-507 repealed, new Section R9-20-507 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-507 amended, renumbered as Section R9-20-505, then renumbered as Section R18-4-105 effective October 23, 1987 (Supp. 87-4). R18-5-105 recodified from R18-4-105 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1). Amended by final rulemaking at 14 A.A.R. 4527, effective January 31, 2009 (Supp. 08-4).

R18-5-106. Examinations

A. The Department shall provide for examinations for certification of operators. The Department may contract with third party examiners for administration of examinations, based on its assessment of the quality of the examination services. The Department shall ensure that a list of approved examiners is available upon request.

B. The Department shall validate all examinations before administration. Each examination shall include topics such as treatment technologies, system maintenance, regulatory protocols, safety, mathematics, and general system management.

C. The examiner shall grade the examination and make the results available to the applicant and the Department within seven days of the date of the examination.

D. An applicant shall not be admitted to an examination without a valid picture I.D.

E. An individual shall make a score of 70 percent on the examination in order to attain a passing grade.

Historical Note

Adopted effective March 19, 1980 (Supp. 80-2). Former Section R9-20-508 amended, renumbered as Section R9-20-506, then renumbered as Section R18-4-106 effective October 23, 1987 (Supp. 87-4). Amended subsection (F) effective November 30, 1988 (Supp. 88-4). R18-5-106 recodified from R18-4-106 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1).

R18-5-107. Certificate Renewal

A. If the Department renews a certificate, the certificate is renewed for three years, unless the operator requests a shorter renewal period in writing.

B. To renew a certificate, an operator shall complete and submit to the Department an operator certificate renewal form

approved by the Department. An operator shall maintain documentation and provide the documentation to the Department upon request to verify completion of at least 30 PDHs accumulated during a certification period. The operator shall provide documentation of PDHs in a format acceptable to the Department. At least 10 of the PDHs shall directly relate to the specific job functions of the operator. If an operator holds multiple certificates, the operator may apply required PDHs to all certificates if the PDHs are acquired within the applicable certification period. The operator's supervisor or the entity that provides the education or training shall verify completion of each PDH in writing. An operator shall maintain documentation of completion of PDHs for a minimum of five years.

C. As an alternative to the requirements of subsection (B), an operator may renew a certificate by taking and passing an examination for the applicable class and grade.

Historical Note

Former Section R9-20-509 repealed, new Section R9-20-509 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-509 amended, renumbered as Section R9-20-507, then renumbered as Section R18-4-107 effective October 23, 1987 (Supp. 87-4). Amended subsection (B) effective November 30, 1988 (Supp. 88-4). R18-5-107 recodified from R18-4-107 (Supp. 95-1). Section repealed; new Section adopted by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1). Amended by final rulemaking at 11 A.A.R. 998, effective April 2, 2005 (Supp. 05-1).

R18-5-108. Certificate Expiration

A. A certificate expires on the expiration date printed on the certificate. An operator may reinstate an expired certificate for the same class and grade without examination if the operator files the documentation required in R18-5-107(B) with the Department within 90 days of the certificate expiration date.

B. If an expired certificate is not renewed within 90 days of the certificate expiration date, the Department shall not reinstate the certificate. To be recertified, the operator shall reapply and be reexamined as a new applicant.

Historical Note

Former Section R9-20-510 repealed, new Section R9-20-510 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-510 amended, renumbered as Section R9-20-508, then renumbered as Section R18-4-108 effective October 23, 1987 (Supp. 87-4). Amended subsection (D) effective November 30, 1988 (Supp. 88-4). R18-5-108 recodified from R18-4-108 (Supp. 95-2). Section repealed; new Section adopted by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1).

R18-5-109. Denial, Suspension, Probation, and Revocation

A. If the Department decides to deny, suspend, or revoke a certificate, or to place an operator on probation, the Department shall act in accordance with A.R.S. Title 41, Chapter 6, Article 10 and 18 A.A.C. 1, Article 2.

B. The Department may revoke or suspend a certificate, or place an operator on probation, if the Department finds that the operator:

1. Operates a facility in a manner that violates federal or state law;
2. Negligently operates a facility or negligently supervises the operation of a facility;
3. Fails to comply with a Department order or order of a court;
4. Obtains, or attempts to obtain, a certificate by fraud, deceit, or misrepresentation;
5. Engages in fraud, deceit, or misrepresentation in the operation or supervision of a facility;
6. Knowingly or negligently prepares a false or fraudulent report or record regarding the operation or supervision of a facility;
7. Endangers the public health, safety, or welfare;
8. Fails to comply with the terms or conditions of probation or suspension; or
9. Fails to cooperate with an investigation by the Department including failing or refusing to provide information required by this Article.

C. The Department shall deny certification to an applicant who does not meet the requirements of R18-5-105 or R18-5-110, or who is ineligible for certification pursuant to a Department order or order of a court.

D. The Department may place an operator on probation or suspend an operator's certificate to address deficiencies in operator performance. The terms of probation or suspension may include completion of additional PDHs, increased reporting of operator activity, limitations on activities the operator may perform, or other terms to address deficiencies in operator performance.

E. During the period of suspension, an individual whose certificate is suspended shall not operate a facility of the class of the suspended certificate.

F. An operator whose certificate is suspended or revoked, or who has been placed on probation, shall immediately notify the owner of a facility where the operator is employed of the suspension, revocation, or probation.

Historical Note

Former Section R9-20-511 repealed, new Section R9-20-511 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-511 amended, renumbered as Section R9-20-509, then renumbered as Section R18-4-109 effective October 23, 1987 (Supp. 87-4). R18-5-109 recodified from R18-4-109 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1). Amended by final rulemaking at 11 A.A.R. 998, effective April 2, 2005 (Supp. 05-1). Amended by final rulemaking at 14 A.A.R. 4527, effective January 31, 2009 (Supp. 08-4).

R18-5-110. Reciprocity

The Department shall issue a certificate to an applicant who holds a valid certificate from another jurisdiction, if the applicant:

1. Passes a written, validated examination in Arizona or in another jurisdiction that administers an examination that is substantially equivalent to the examination in Arizona and validated by the Department, and
2. Submits written evidence of the experience and education required under R18-5-112.

Historical Note

Former Section R9-20-512 repealed, new Section R9-20-512 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-512 amended, renumbered as Section R9-20-510, then renumbered as Section R18-4-110 effective October 23, 1987 (Supp. 87-4). Amended subsection (B) effective November 30, 1988 (Supp. 88-4). R18-5-110 recodified from R18-4-110 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1).

R18-5-111. Repealed

Historical Note

Adopted as Section R9-20-511 and renumbered as Section R18-4-111 effective October 23, 1987 (Supp. 87-4). R18-5-111 recodified from R18-4-111 (Supp. 95-2). Section repealed by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1).

R18-5-112. Experience and Education

A. The Department shall consider the following criteria to determine whether an applicant has the experience and education required for certification in a specific class and grade:
1. Years of experience at a lower grade;
2. Qualifying experience in the same or a related field; and
3. Education in a qualifying discipline.

B. An applicant shall provide written evidence of education in a qualifying discipline. The applicant shall provide transcripts if the Department determines that the transcripts are necessary to verify completion of the education requirements.

C. An applicant shall provide written evidence of qualifying experience in the applicable facility class.

D. An applicant shall meet the following requirements for admission to a certification examination:
1. For Grade 1, high school graduation or the equivalent.
2. For Grade 2, at least:
   a. High school graduation or the equivalent and one year of qualifying experience as a Grade 1 operator or the equivalent of a Grade 1 operator in another jurisdiction;
   b. Two years of postsecondary education in a qualifying discipline and one year of qualifying experience, including six months as a Grade 1 operator or the equivalent of a Grade 1 operator in another jurisdiction; or
   c. A bachelor's degree in a qualifying discipline and six months of qualifying experience.
3. For Grade 3, at least:
   a. High school graduation or the equivalent and two years of qualifying experience, including one year as a Grade 2 operator or the equivalent of a Grade 2 operator in another jurisdiction;
   b. Two years of postsecondary education in a qualifying discipline, and 18 months of qualifying experience as a Grade 2 operator or the equivalent of a Grade 2 operator in another jurisdiction; or
   c. A bachelor's degree in a qualifying discipline and one year of qualifying experience.
4. For Grade 4, at least:
   a. High school graduation or the equivalent and three years of qualifying experience, including one year as a Grade 3 operator or the equivalent of a Grade 3 operator in another jurisdiction;
   b. Two years of postsecondary education in a qualifying discipline and 30 months of qualifying experience, including one year as a Grade 3 operator or the equivalent of a Grade 3 operator in another jurisdiction; or
   c. A bachelor's degree in a qualifying discipline, and two years of qualifying experience.

Historical Note

Former Section R9-20-517 repealed, new Section R9-20-517 adopted effective November 1, 1979 (Supp. 79-6). Amended effective March 19, 1980 (Supp. 80-2). Former Section R9-20-517 amended, renumbered as Section R9-20-512, then renumbered as Section R18-4-112 effective October 23, 1987 (Supp. 87-4). R18-5-112 recodified from R18-4-112 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1). Amended by final rulemaking at 7 A.A.R. 5079, effective October 16, 2001 (Supp. 01-4).

R18-5-113. Classes of Facilities

A. The Department shall classify a facility in one of four classes:
1. Water treatment plant,
2. Water distribution system,
3. Wastewater treatment plant, or
4. Wastewater collection system.

B. The Department shall classify a facility as one of four grades, Grades 1–4. The grade corresponds with the level of system complexity, with Grade 1 being the most simple and Grade 4 being the most complex.

C. For a multi-facility system, the Department shall grade each facility according to complexity and the total population or population equivalent served.

Historical Note

Adopted as Section R9-20-513 and renumbered as Section R18-4-113 effective October 23, 1987 (Supp. 87-4). Amended subsections (A) and (C) effective November 30, 1988 (Supp. 88-4). R18-5-113 recodified from R18-4-113 (Supp. 95-2). Section repealed; new Section adopted by final rulemaking at 7 A.A.R. 1171, effective February 16, 2001 (Supp. 01-1).

R18-5-114. Grades of Wastewater Treatment Plants and Collection Systems

The Department shall grade a wastewater treatment plant or collection system according to population equivalent served, degree of hazard to public health, class of facility, and degree of treatment, as follows:
1. Grade 1 includes:
   a. A stabilization pond that serves 2,000 or fewer persons;
   b. A wastewater treatment plant not designated as Grade 2, 3, or 4; or
   c. A collection system that serves 2,500 or fewer persons.
2. Grade 2 includes:
   a. A stabilization pond that is designed to serve more than 2,000 persons;
   b. An aerated lagoon;
   c. A facility that employs biological treatment based upon the activated sludge principle or trickling filters and is designed to serve 5,000 or fewer persons, except as provided in subsection (3)(c); or
   d. A collection system that serves between 2,501 to 10,000 persons.
3. Grade 3 includes:
   a. A facility that employs biological treatment based upon the activated sludge principle and is designed to serve 5,001 to 20,000 persons;
   b. A facility that employs trickling filtration and is designed to serve 5,001 to 25,000 persons;
   c. A variation of biological treatment based on the activated sludge principle that requires specialized knowledge, including contact stabilization, and is designed to serve 20,000 or fewer persons; or
   d. A collection system that serves 10,001 to 25,000 persons.
4. Grade 4 includes:

effective January 30, 2004 (Supp. 04-1).

R18-5-507. Approval of Construction

A. A person shall not operate a newly constructed facility until an Approval of Construction is issued by the Department.

B. The Department shall not issue an Approval of Construction on a newly constructed public water system, an extension to an existing public water system, or any alteration of an existing public water system that affects its treatment, capacity, water quality, flow, distribution, or operational performance unless the following requirements have been met:

1. A professional engineer registered in Arizona or a person under the direct supervision of a professional engineer registered in Arizona, has completed a final inspection and submitted a Certificate of Completion on a form approved by the Department to which the seal and signature of the professional engineer registered in Arizona have been affixed;
2. The construction conforms to approved plans and specifications, as indicated in the Certificate of Completion, and all changes have been documented by the submission of record drawings under R18-5-508;
3. An operations and maintenance manual has been submitted and approved by the Department if construction includes a new water treatment facility; and
4. An operator, who is certified by the Department at a grade appropriate for each facility, is employed to operate each water treatment plant and the potable water distribution system.

C. The Department may conduct the final inspection required in subsection (B)(1), at a public water system's request, if both of the following notification requirements are met:

1. The public water system notifies the Department at least seven days before beginning construction on a public water system installation, change, or addition that is authorized by an Approval to Construct; and
2. The public water system notifies the Department of completion of construction at least 10 working days before the expected completion date.

Historical Note

Section recodified from R18-4-507 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-5-508. Record Drawings

A. A professional engineer registered in Arizona shall clearly and accurately record or mark, on a complete set of working project drawings, each deviation from the original plan and the dimensions of the deviation. The set of marked drawings becomes the record drawings, reflecting the project as actually built.

B. The professional engineer registered in Arizona shall sign, date, and place the engineer's seal on each sheet of the record drawings and submit them to the Department upon completion of the project. The record drawings shall be accompanied by an Engineer's Certificate of Completion, signed by the professional engineer registered in Arizona, and submitted on a form approved by the Department for any project inspected under R18-5-507(B).

C. Quality control testing results and calculations, including pressure and microbiological testing, and disinfectant residual records, shall be submitted with the Engineer's Certificate of Completion together with field notes and the name of the individual witnessing the tests.

Historical Note

Section recodified from R18-4-508 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-5-509. Modification to Existing Treatment Process

Before a public water system may make a modification to its existing treatment process, the public water system shall submit and obtain the Department's approval for a detailed plan that explains the proposed modifications and the safeguards that the public water system will implement to ensure that the quality of the water served by the system will not be adversely affected by the modification. The public water system shall comply with the provisions in the approved plans.

Historical Note

Section recodified from R18-4-509 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).