State of Georgia
Department of Natural Resources
Environmental Protection Division

Public Water System
2014 Compliance Summary Report

This Annual Compliance Report provides a summary of maximum contaminant level (MCL), significant monitoring/reporting (M/R), and treatment technique (TT) violations during the calendar year 2014 for public water systems (PWSs) in the State of Georgia.

Introduction

The US Environmental Protection Agency (EPA) established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (SDWA). Under the SDWA and the 1986 Amendments, EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs) and Maximum Residual Disinfectant Levels (MRDLs). For some regulations, EPA established treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in drinking water. The Agency also regulates how often public water systems (PWSs) monitor their drinking water for contaminants and report the monitoring result to the states or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data for future regulatory development. Finally, EPA requires PWSs to notify the public when they have violated these regulations. The 1996 Amendments to the SDWA require public notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects, steps that the PWS is undertaking to correct the violation and the possibility of alternative water supplies during the violation.

The SDWA applies to the 50 States, the District of Columbia, Indian Lands, Puerto Rico, the Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

The SDWA allows states, tribes, and territories to seek EPA approval to administer their own PWSS programs. The authority to run a PWSS Program is called primacy. For a state to receive primacy, EPA must determine that the state meets certain requirements laid out in the SDWA and federal regulations, including the adoption of drinking water regulations that are at least as stringent as the federal regulations and a demonstration that they can enforce the program requirements. Of the 56 states and territories, all but Wyoming and the District of Columbia have Primacy. The EPA Regional Offices administer the PWSS Programs within these two jurisdictions.

The 1986 SDWA Amendments gave Indian Tribes the right to apply for and receive primacy. EPA currently administers PWSS Programs on all Indian lands except the Navajo Nation, which was granted primacy in late 2000.

Annual State PWS Report

Each quarter, primacy states submit data to the Safe Drinking Water Information System (SDWIS/FED), an automated database maintained by EPA. The data submitted include, but are not limited to, PWS inventory statistics, the incidence of maximum contaminant level, maximum residual disinfectant level, monitoring, and treatment technique violations, and the enforcement actions taken against violators. Section 1414(c)(3) of the Safe Drinking Water Act requires states to provide EPA with an annual report of violations of the primary drinking water standards. The annual compliance report provides the numbers of violations in each of six categories: MCLs, MRDLs, treatment techniques, variances and exemptions, significant monitoring violations, and significant consumer notification violations. The EPA Regional Offices report the information for Wyoming, the District of Columbia, and all Indian Lands but the Navajo Nation. EPA stores this data in an automated database called the Safe Drinking Water Information System (SDWIS). This report is based on data in Georgia Safe Drinking Water Information System (SDWIS/STATE) and retrieved from the federal version of the Safe Drinking Water Information System (SDWIS/FED).

Public Water System

A Public water system (PWS) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. There are three types of PWSs. PWSs can be community (such as towns), non-transient non-community (such as schools or factories), or transient non-community systems (such as rest stops or parks). For this report, when the acronym PWS is used, it means systems of all types unless specified in greater detail.

Maximum Contaminant Level

Under the Safe Drinking Water Act (SDWA), the EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs).

Maximum Residual Disinfection Level

The EPA sets national limits on residual disinfection levels in drinking Water to reduce the risk of exposure to disinfectant byproducts formed when public water systems add chemical disinfection for either primary or residual treatment. These limits are known as Maximum Residual Disinfectant Levels (MRDLs).

Treatment Techniques

For some regulations, the EPA establishes treatment techniques (TTs) in lieu of an MCL to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, some bacteria, and turbidity.

Variances and Exemptions

Although the State of Georgia currently does not grant them, the Safe Drinking Water Act Amendments of 1996 allows for variances and exemptions to specific requirements of the Act to be granted under certain circumstances. If, due to the characteristics of the raw water sources reasonably available, a PWS cannot meet the MCL, a primacy state can grant the PWS a variance from the applicable primary drinking water regulation on the condition that the system installs the best available technology, treatment techniques, or other means which the Director finds are available (taking cost into account). The state must find that the variance will not result in an unreasonable risk to health, and shall prescribe, at the time the variance is granted, a schedule (including increments of progress) in accordance with which the PWS must come into compliance with the MCL.

Small systems (serving 3,300 or fewer persons; or 10,000 or fewer persons with the Director's approval) may be granted variances if they cannot afford (as determined by application of the Director's affordability criteria) to comply with certain MCLs (non-microbial, promulgated after January 1, 1986) by means of treatment, alternative source of water, or restructuring or consolidation. Small systems must, within 3 years, install and operate EPA approved small system variance technology. The variance must ensure adequate protection of human health, and the variance shall be reviewed not less than every 5 years to determine whether the system remains eligible for the variance. A primacy state may by exemption relieve a PWS of its obligation to comply with an MCL, treatment technique, or both if the system's noncompliance results from compelling factors (which may include economic factors, the system was in operation on the effective date of the MCL or treatment technique requirement) or if not in operation by that date, only if no reasonable alternative source of drinking water is available to such new systems, management or restructuring changes cannot reasonably be made that will result in compliance with the SDWA or improvement of water quality, and the exemption will not result in an unreasonable risk to public health. The State will require the PWS to comply with the MCL or treatment technique as expeditiously as practicable, but not later than 3 years after the otherwise applicable compliance date.

Monitoring

A PWS is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL. If a PWS fails to have its water tested as required or fails to report test results correctly to the primacy agent, then a monitoring violation occurs.

Significant Monitoring Violations

For this report, significant monitoring violations are defined as any major monitoring violation that has occurred during the specified report interval. A major monitoring violation (expect for the Surface Water Treatment Rule) occurs when no samples were taken or no results are reported during a compliance period. A major Surface Water Treatment Rule M/R violation occurs when fewer than 10% of the required samples are taken or no results are reported during a reporting interval. A minor violation occurs when some but not all of the required numbers of samples are taken.

Consumer Notification

Every Community Water System is required to deliver to its customers a brief annual water quality report. This report is to include some educational material, and will provide information on the source water, the levels of any detected contaminants, and compliance with drinking water regulations.

Significant Consumer Notification Violations

For this report, a significant public notification violation occurred if a community water system completely failed to provide its customers the required annual water quality report.

Public Notice Violation

The Public Notification Rule requires all PWS to notify their consumers any time a PWS violated a national primary drinking water regulation or has a situation posing a risk to public health. Notices must be provided to persons served (not just billing consumers).

Obtaining Copy of 2014 Public Water Systems Report

As required by the Safe Drinking Water Act, the State of Georgia has made the 2014 Public Water Systems report available to the public. Interested individuals can obtain a copy of the 2014 Annual Public Water Systems Report for Georgia by accessing the Department of Natural Resources' website at www.gaeorgiaepd.org.

Georgia 2014 Compliance Summary Report

MCLs, Treatment Techniques, and Significant Monitoring/Reporting
January 1, 2014 to December 31, 2014

Definitions

Filtered Systems: Water systems that have installed filtration treatment [40 CFR 141, Subpart H].

Inorganic Contaminants: Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

Lead and Copper Rule: This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. Pennsylvania reports violations of the Lead and Copper Rule in the following six categories:

Initial Lead and Copper Tap M/R: A violation where a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

Follow-up or Routine Lead and Copper Tap M/R: A violation where a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

Treatment Installation: Violations for a failure to install optimal corrosion control treatment system or source water treatment system which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in both categories].

Lead Service Line Replacement: A violation for a system's failure to replace lead service lines on the schedule required by the regulation.

Public Education: A violation where a system did not provide required public education about reducing or avoiding lead intake from water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) unless otherwise specified.

Monitoring: EPA specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violation [40 CFR 141].

States must report monitoring violations that are significant as determined by the EPA Administrator in consultation with the States. For purposes of this report, significant monitoring violations are major violations and they occur when no samples are taken or no results are reported during a

compliance period. A major monitoring violation for the surface water treatment rule occurs when at least 90% of the required samples are not taken or results are not reported during the compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

Radionuclides: Radioactive particles which can occur naturally in water or result from human activity. EPA has set legal limits on four types of radionuclides: radium-226, radium-228, gross alpha, and beta particle/photon radioactivity [40 CFR 141]. Violations for these contaminants are to be reported using the following three categories:

Gross Alpha: A violation for alpha radiation above MCL of 15 picocuries/liter. Gross alpha includes radium-226 but excludes radon and uranium.

Combined Radium-226 and Radium-228*:* A violation for combined radiation from these two isotopes above MCL of 5 pCi/L.

Gross Beta*:* A violation for beta particle and photon radioactivity from man-made radionuclides above 4 millirem/year.

Reporting Interval: The reporting interval for violations to be included in the first PWS Annual Compliance Report, which was submitted to EPA by January 1, 1998, was from January 1, 1996 through December 31, 1996. Subsequent compliance reports will be submitted to EPA by July 1 for the preceding calendar year.

SDWIS Code: Specific numeric codes from the Safe Drinking Water Information System (SDWIS) have been assigned to each violation type included in this report. The violations to be reported include exceeding contaminant MCLs, failure to comply with treatment requirements, and failure to meet monitoring and reporting requirements. Four-digit SDWIS Contaminant Codes have also been included in the chart for specific MCL contaminants.

Surface Water Treatment Rule: The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface-water sources, or ground-water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Violations of the "Surface Water Treatment Rule" are to be reported for the following four categories:

Monitoring, Routine/Repeat (for filtered systems): A violation for a system's failure to carry out required tests, or to report the results of those tests.

Treatment Techniques (for filtered systems): A violation for a system's failure to properly treat its water.

Monitoring, Routine/Repeat (for unfiltered systems): A violation for a system's failure to carry out required water tests, or to report the results of those tests.

Failure to Filter (for unfiltered systems): A violation for a system's failure to properly treat its water. Data for this violation code will be supplied to the states by EPA.

Total Coliform Rule (TCR): The Total Coliform Rule establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one month compliance period, a significant monitoring violation occurs. States are to report four categories of violations:

Acute MCL violation: A violation where the system found fecal coliform or E. coli, potentially harmful bacteria, in its water, thereby violating the rule.

Non-acute MCL violation: A violation where the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

Major Routine and Follow-up Monitoring: A violation where a system did not perform any monitoring. [One number is to be reported for the sum of violations in these two categories.]

Sanitary Survey: A major monitoring violation if a system fails to collect 5 routine monthly samples if sanitary survey is not performed.

Treatment Techniques: A water disinfection process that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the Surface Water Treatment and the Lead and Copper Rules have also been included in this category of violation for purposes of this report.

Unfiltered Systems: Water systems that do not need to filter their water before disinfecting it because the source is very clean [40 CFR, Subpart H].

Violation: A failure to meet any state or federal drinking water regulation.

State of Georgia 2014
MCL/MRDL & Treatment Technique Violations Summary Tables

Volatile and Synthetic Organic Contaminants

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
1,1,1-Trichloroethane	0.20	0	0			1	1
1,1,2-Trichloroethane	0.005	0	0			1	1
1,1-Dichloroethylene	0.007	0	0			1	1
1,2,4-Trichlorobenzene	0.07	0	0			1	1
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			0	0
1,2-Dichlorethane	0.005	0	0			1	1
1,2-Dichloropropane	0.005	0	0			1	1
2,3,7,8-TCDD (Dioxin)	$3x10^{-8}$	0	0			0	0
2,4,5-TP	0.05	0	0			0	0
2,4-D	0.07	0	0			0	0
Acrylamide				0	0		
Alachlor	0.002	0	0			0	0
Atrazine	0.003	0	0			0	0
Benzene	0.005	0	0			1	1
Benzo[a]pyrene	0.0002	0	0			0	0
Carbofuran	0.04	0	0			0	0
Carbon tetrachloride	0.002	0	0			1	1
Chlordane	0.002	0	0			0	0
Chlorobenzene	0.10	0	0			1	1
cis-1,2-Dichloroethylene	0.07	0	0			1	1
Dalapon	0.2	0	0			0	0
Di(2-ethylhexyl)adipate	0.4	0	0			0	0
Di(2-ethylhexyl)phthalate	0.006	0	0			0	0

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Dichloromethane	0.005	0	0			1	1
Dinoseb	0.007	0	0			0	0
Diquat	0.02	0	0			0	0
Endothall	0.1	0	0			0	0
Endrin	0.002	0	0			0	0
Epichlorohydrin				0	0		
Ethylbenzene	0.7	0	0			1	1
Ethylene dibromide	0.00005	0	0			0	0
Glyphosate	0.7	0	0			0	0
Heptachlor	0.0004	0	0			0	0
Heptachlor epoxide	0.0002	0	0			0	0
Hexachlorobenzene	0.001	0	0			0	0
Hexachlorocyclopentadiene	0.05	0	0			0	0
Lindane	0.0002	0	0			0	0
Methoxychlor	0.04	0	0			0	0
Monochlorobenzene	0.1	0	0			0	0
o-Dichlorobenzene	0.6	0	0			1	1
Oxamyl (Vydate)	0.2	0	0			0	0
para-Dichlorobenzene	0.075	0	0			1	1
Pentachlorophenol	0.001	0	0			0	0
Picloram	0.5	0	0			0	0
Simazine	0.004	0	0			0	0
Styrene	0.1	0	0			1	1
Tetrachloroethylene	0.005	0	0			1	1
Toluene	1	0	0			1	1
Total polychlorinated biphenyls	0.0005	0	0			0	0
Toxaphene	0.003	0	0			0	0

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Dichloroethylene	0.1	0	0			1	1
Trichloroethylene	0.005	0	0			1	1
Vinyl chloride	0.002	0	0			1	1
Xylenes (total)	10	0	0			1	1
Subtotal		0	0	0	0	21	21

Inorganic Contaminants

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Antimony	0.006	0	0			1	1
Arsenic	0.05	1	1			1	1
Asbestos	7 million fibers/□ 10um long	0	0			0	0
Barium	2	0	0			1	1
Beryllium	0.004	0	0			1	1
Cadmium	0.005	0	0			1	1
Chromium	0.1	0	0			1	1
Cyanide (as free cyanide)	0.2	0	0			1	1
Fluoride	4.0	0	0			1	1
Mercury	0.002	0	0			1	1
Nickel	0.1	0	0			1	1
Nitrate	10 (as Nitrogen)	0	0			35	29
Nitrite	1 (as Nitrogen)	0	0			1	1
Selenium	0.05	0	0			1	1
Thallium	0.002	0	0			1	1
Subtotal		1	1			48	42

Stage 1 Disinfectants and Disinfection By-products Rule

	MCL (mg/□)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Total Trihalomethanes (TTHM)	0.080	8	2			1	1
DBP violations				3	3		
Total Haloacetic Acids (HAA5)	0.060	2	1			1	1
Subtotal		10	3	3	3	2	2

Stage 2 Disinfectants and Disinfection By-products Rule

	MCL (mg/□)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Total Trihalomethanes (TTHM)	0.080	29	7			8	8
Total Haloacetic Acids (HAA5)	0.060	18	4			8	8
Subtotal		47	11			16	16

Radionuclides

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Gross alpha, excl radon and uranium	15pCi/P	1	1			5	5
Radium-226 and radium-228	5pCi/P	1	1			5	5
Gross beta	4mrem/yr	0	0			0	0
Uranium	30 ug/L	0	0			4	4
Subtotal		2	2			14	14

Total Coliform Rule

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
MCL Violations	Presence	65	61				
Monitoring, Routine Major (TCR)						243	188
Monitoring, Routine Minor (TCR)						25	25
Monitoring, Repeat Major (TCR)						20	19
Monitoring, Repeat Minor (TCR)						8	8
Sanitary survey						0	0
Subtotal		65	61			296	240

Groundwater Rule

	MCL (mg/P)[1]			Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Failure to Conduct Assessment Monitoring						1	1
Failure to Address Deficiency		7	4				
Subtotal		7	4			1	1

Surface Water Treatment Rule

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Filtered systems							
Monitoring, routine/repeat						0	0
Treatment techniques				0	0		
Unfiltered systems							
Monitoring, routine/repeat						0	0
Failure to filter				0	0		
Subtotal				0	0	0	0

Lead and Copper Rule

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Initial Lead and Copper tap M/R						23	20
Follow-up or routine Lead and Copper tap M/R						268	214
Treatment Installation				2	2		
Public Education				0	0	2	2
Subtotal				2	2	293	263

Public Notice Rule

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Public Notification Violations						3	3
Subtotal						3	3

Consumer Confidence Report

	MCL (mg/P)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Failed to submit report						709	621
Subtotal				0	0	709	621

1. Values are in milligrams per liter (mg/L), unless otherwise specified.

2. Dioxin, Asbestos, and Cyanide sampling have been waved by the State based on special sampling for these potential contaminants.

3. Number of major monitoring violations for sanitary survey under the Total Coliform Rule.

4. Due to some system returning to compliance, the actual subtotal of systems with violations may be less than what is reported above.

5. Appendix A is a listing of Georgia's public water systems that had violations for calendar year 2014.

Summary

The purpose of this report is to inform and educate the public of Public Water System compliance with the Safe Drinking Water Act.

The majority of all drinking water violations for calendar year 2014 involved failure to submit a sample, failure to report test results, or failure to provide and annual Consumer Confidence Report. These administrative violations do not mean there were any problems with the quality of the drinking water being served.

There were approximately 960 violations that occurred in calendar year 2014. There were 844 community water systems, 31 non-transient non-community water systems, and 85 transient non-community water systems that had violations (see Appendix A). It is important to note that most violations are brief in duration and quickly resolved.

EPD is working with public water systems in Georgia to ensure that corrosive water does not cause public health problems. The reaction between corrosive water and lead and copper piping can result in unsafe levels of lead and copper in drinking water. More than 2,000 public water systems have participated in a phased monitoring program which began in 1992.

Georgia's 2014 Annual Compliance Summary Report was published on June 29, 2015 on Georgia's Department of Natural Resources website at http://www.epd.georgia.gov. A detailed copy of this report is available for review at 2 MLK, Jr. Dr. S.W., Suite 1152, Atlanta, GA 30334 between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday.

For additional information about this report contact:

Carla Foy, Program Manager
Department of Natural Resources
Environmental Protection Division
Drinking Water Compliance Program
2 Martin Luther King, Jr. Drive, Suite 1152 East
Atlanta, GA 30334
Phone: (404) 656-5961
E-mail: carla.foy@dnr.ga.gov