

**North Carolina's Annual State Public Water Systems Compliance Report**  
**For the Calendar Year 2006**

Contaminant Name	MCL (mg/l) <sup>1</sup>	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
Organic Contaminants							
1,1,1-Trichloroethane (VOC)	0.2	0	0			137	86
1,1-Dichloroethylene (VOC)	0.007	4	1			137	86
1,1,2-Trichloroethane (VOC)	.005	0	0			137	86
1,2,4-Trichlorobenzene (VOC)	.07	0	0			137	86
1,2-Dibromo-3-chloropropane (DBCP) (SOC)	0.0002	0	0			81	45
1,2-Dichloroethane (VOC)	0.005	0	0			137	86
1,2-Dichloropropane (VOC)	0.005	0	0			137	86
2,3,7,8-TCDD (Dioxin) (SOC)	3x10 <sup>-8</sup>	State-wide waiver	State-wide waiver			State-wide waiver	State-wide waiver
2,4,5-TP (Silvex) (SOC)	0.05	0	0			81	45
2,4-D (SOC)	0.07	0	0			85	47
Acrylamide (SOC)				0	0		
Alachlor (SOC)	0.002	0	0			78	44
Atrazine (SOC)	0.003	0	0			82	46
Benzene (VOC)	0.005	0	0			137	86
Benzo(a)pyrene (SOC)	0.0002	0	0			80	45
Carbofuran (SOC)	0.04	0	0			84	45
Carbon tetrachloride (VOC)	0.005	0	0			137	86
Chlordane (SOC)	0.002	0	0			83	48
Cis-1,2-Dichloroethylene (VOC)	0.07	0	0			137	86
Dalapon (SOC)	0.2	0	0			85	47
Di(2-ethylhexyl)adipate (SOC)	0.4	0	0			114	78

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		Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
Di(2-ethylhexyl)phthalate (SOC)	0.006	0	0			101	59
Dichloromethane (VOC)	0.005	2	1			137	86
Dinoseb (SOC)	0.007	0	0			81	45
Diquat (SOC)	0.02	State-wide waiver	State-wide waiver			State-wide waiver	State-wide waiver
Endothall (SOC)	0.1	State-wide waiver	State-wide waiver			State-wide waiver	State-wide waiver
Endrin (SOC)	0.002	0	0			78	44
Epichlorohydrin (SOC)				0	0		
Ethylbenzene (VOC)	0.7	0	0			137	86
Ethylene dibromide (EDB) (SOC)	0.00005	3	1			82	46
Glyphosate (SOC)	0.7	State-wide waiver	State-wide waiver			State-wide waiver	State-wide waiver
Heptachlor (SOC)	0.0004	0	0			78	44
Heptachlor epoxide (SOC)	0.0002	0	0			85	47
Hexachlorobenzene (SOC)	0.001	0	0			78	44
Hexachlorocyclopentadiene (SOC)	0.05	0	0			78	44
Lindane (SOC)	0.0002	0	0			78	44
Methoxychlor (SOC)	0.04	0	0			78	44
Monochlorobenzene (VOC)	0.1	0	0			137	86
o-Dichlorobenzene (VOC)	0.6	0	0			137	86
para-Dichlorobenzene (VOC)	0.075	1	1			137	86
Total polychlorinated biphenyls (PCBs) (SOC)	0.0005	0	0			84	45
Pentachlorophenol (SOC)	0.001	0	0			82	46
Tetrachloroethylene (VOC)	0.005	0	0			137	86
Trichloroethylene (VOC)	0.005	0	0			137	86
Styrene (VOC)	0.1	0	0			137	86
Toluene (VOC)	1	0	0			137	86
Trans-1,2-Dichloroethylene (VOC)	0.1	0	0			137	86

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		Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
Xylenes (total) (VOC)	10	0	0			137	86
Toxaphene (SOC)	0.003	0	0			84	45
Oxamyl (Vydate) (SOC)	0.2	0	0			84	45
Pichloram (SOC)	0.5	0	0			82	45
Simazine (SOC)	0.004	0	0			79	45
Vinyl chloride (VOC)	0.002	2	1			137	86
<b>SUBTOTAL</b>		12	5			5042	3028

Contaminant Name	MCL (mg/l) <sup>1</sup>	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
Inorganic Contaminants							
Antimony	0.006	0	0			2	2
Arsenic	0.01**	5	2			2	2
Asbestos	7 million fibers/L# 10 Φm long	0	0			0	0
Barium	2	0	0			2	2
Beryllium	0.004	0	0			2	2
Cadmium	0.005	0	0			2	2
Chromium	0.1	0	0			2	2
Cyanide (as free cyanide)	0.2	0	0			2	2
Fluoride	4.0	0	0			2	2
Mercury	0.002	0	0			2	2
Nitrate	10 (as Nitrogen)	14	10			654	624
Nitrite	1 (as Nitrogen)	0	0			194	190
Selenium	0.05	0	0			2	2
Thallium	0.002	0	0			6	4

Contaminant Name	MCL (mg/l) <sup>1</sup>	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
<b>SUBTOTAL</b>		19	12			874	838

\*\*North Carolina lowered the Arsenic Maximum Contaminant Level to 0.01ppm in the year 2002.

Contaminant Name	MCL (mg/l) <sup>1</sup>	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
Radionuclides							
Gross alpha	15 pCi/L	32	16			5	4
Uranium	20.1 pCi/L	37	16			5	4
Radium-226 and radium-228	5 pCi/L	248	43			29	16
Radium-226	3 pCi/L	0	0			2	2
Radium-228	2 pCi/L	0	0			2	2
Gross beta	4 mrem/yr	0	0			0	0
<b>SUBTOTAL</b>		317	75			43	28

Contaminant Name	MCL (mg/l) <sup>1</sup>	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 Coliform Rule							
Acute MCL Violation	Presence	15	13				
Non-acute MCL violation	Presence	296	238				
Major routine and follow-up monitoring						3013	1654
Sanitary survey <sup>2</sup>						0	0
<b>SUBTOTAL</b>		311	251			3013	1654

Contaminant Name	MCL (mg/l) <sup>1</sup>	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
<u>Surface Water Treatment Rule (SWTR)</u>							
Filtered systems							
Monitoring, routine/repeat						0	0
Treatment techniques				0	0		
Unfiltered systems							
Monitoring routine/repeat						0	0
Failure to filter				0	0		
<u>Interim Enhanced Surface Water Treatment Rule (IESWTR)</u>							
Monitoring, routine/repeat						0	0
Treatment techniques				0	0		
<b>SUBTOTAL</b>				0	0	0	0

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		Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
<u>Lead and Copper Rule</u>							
Initial lead and copper tap M/R						20	19
Follow-up or routine lead and copper tap M/R						2	1
Treatment installation				0	0		
Public Education				9	9		
<b>SUBTOTAL</b>				9	9	22	20

Contaminant Name	MCL (mg/l) <sup>1</sup>	MCLs/MRDLS		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
<u>Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR)</u>							
Total Organic Carbon						8	6
Chlorine	4.0	0	0			579	273

Contaminant Name	MCL (mg/l) <sup>1</sup>	MCLs/MRDLs		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
Chloramines						6	3
Chlorite	1.0	1	1			0	0
Bromate	0.010	0	0			0	0
Total Haloacetic Acids	0.060	61	34			68	62
Total Trihalomethanes	0.08	134	61			66	61
Treatment technique				5	3		
<b>SUBTOTAL</b>		196	96			697	405

Contaminant Name	MCL (mg/l) <sup>1</sup>	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
Consumer Confidence Report (CCR)							
Complete Failure to Report						1027	880
Public Notices (PN)							
Complete Failure to Report						399	128
<b>SUBTOTAL</b>						1426	1008

- 1 Values are in milligrams per liter (mg/L), unless otherwise specified.
- 2 Number of major monitoring violations for sanitary survey under the Total Coliform Rule.

### The Drinking Water Program: An Overview

The 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 the Maximum Residual Disinfectant Levels (MRDLs). For some regulations, EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in water. The Agency also regulates how often public water systems (PWSs) monitor their water for contaminants and report the monitoring results 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 their consumers when they have violated these regulations. The 1996 Amendments to the SDWA require consumer 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 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 the 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 Navaho 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 information, the incidence of Maximum Contaminant Level, Maximum Residual Disinfectant Level, monitoring, and treatment technique violations; and information on enforcement activity related to these violations. 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. This 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 Navaho Nation. EPA Regional offices also report Federal enforcement actions taken. Data retrieved from SDWIS/FED form the basis of this report.

### **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), nontransient noncommunity (such as schools or factories), or transient noncommunity systems (such as rest stops or parks). For this report when the acronym APWS@ 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 Disinfectant Level**

The EPA sets national limits on residual disinfectant levels in drinking water to reduce the risk of exposure to disinfectant byproducts formed, when public water systems add chemical disinfectant 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**

A primacy state can grant a PWS a variance from a primary drinking water regulation if the characteristics of the raw water sources reasonably available to the PWS do not allow the system to meet the MCL. To obtain a variance, the system must agree to install the best available technology, treatment techniques, or other means of limiting drinking water contamination that the Administrator finds are available (taking costs into account), and the state must find that the variance will not result in an unreasonable risk to public health. The variance shall be reviewed not less than every 5 years to determine if the system remains eligible for the variance.

A primacy state can grant an exemption temporarily relieving 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) and the system was in operation on the effective date of the MCL or treatment technique requirement. 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, a monitoring violation occurs.

### **Significant Monitoring Violations**

For this report, significant monitoring violations are generally defined as any Significant monitoring violation that occurred during the calendar year of the report. A Significant monitoring violation, with rare exceptions, occurs when no samples were taken or no results were reported during a compliance period.

### **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.

## **OBTAINING COPY OF 2006 PUBLIC WATER SYSTEMS REPORT**

As required by the Safe Drinking Water Act the State of North Carolina has made the 2006 Public Water Systems report available to public. Interested individuals can obtain a copy of the 2006 Annual Public Water Systems Report for North Carolina by accessing:

Ask, or look, for the Annual Compliance Report for 2006.

State Website: <http://www.deh.enr.state.nc.us/pws/>

Telephone: 919-733-2321

Fax Number: 919-715-4374

Contact Name: Martha Fillinger

E-Mail: [Martha.Fillinger@ncmail.net](mailto:Martha.Fillinger@ncmail.net)

Address of Responsible State Department: Public Water Supply Section, 1634 Mail Service Center, Raleigh, NC 27699-1634

## **INVENTORY INFORMATION VS VIOLATION INFORMATION**

The information in the tables at the beginning of this report is based on data retrieved from the state's computer system/databases—the state's version of the Safe Drinking Water Information System (SDWIS/State). The SDWIS/Fed (EPA) computer system/databases were used for comparative purposes only.

The Violation Tables contain only certain violation types per EPA's Annual Public Water Systems Compliance Report instructions. EPA does not include some Minor violations. The below information and statistics are based on ALL of the 2006 violations the State of North Carolina generated.

At the end of 2006, North Carolina had 2,166 active 'community' systems, 3,845 active 'transient non-community' systems, 508 active 'non-transient non-community' systems, 92 active 'adjacent community' systems (State defined), 20 active 'adjacent recreational community' systems (State defined), 2 active 'adjacent non-transient non-community'



systems (State defined), 13 active 'seasonal community' systems (State defined), and 184 active 'recreational community' systems (State defined), which is a total of 6,830 active public water systems (Federal and State).

For the calendar year of 2006, or for compliance periods which covered any part of 2006, North Carolina generated 7,536 violations. These violations were acquired by 3,153 water systems. Of these 3,153 water systems, 100 water systems became "inactive" during 2006 and 61 water systems became "inactive" so far in 2007. Which means 3,677 water systems did not receive a violation for or during 2006.

Of these 3,153 water systems:

- 1,578 had 1 violation (63 water systems became "inactive") (50%);
- 658 had 2 violations (52 water systems became "inactive") (21%);
- 345 had 3 violations (17 water systems became "inactive") (11%);
- 212 had 4 violations (13 water systems became "inactive") (7%);
- 169 had 5 violations (5 water systems became "inactive") (5%);
- 58 had 6 violations (3 water systems became "inactive") (2%);
- 40 had 7 violations (2 water systems became "inactive") (1%);
- 19 had 8 violations (1 water systems became "inactive") (<1%);
- 19 had 9 violations (3 water systems became "inactive") (<1%);
- 7 had 10 violations (0 water system became "inactive") (<1%); and
- 48 had 11 or more violations (2 water systems became "inactive") (2%).

Of these 7,536 violations:

- 560 (7%) were MCL/MRDL violations for 164 water systems: (This makes 2% of North Carolina's public water systems having had a water quality issue in 2006.)
  - 24 received by transient non-community water systems (4 water systems became "inactive") (4%);
  - 518 received by community water systems (7 water systems became "inactive") (93%); and
  - 18 received by non-transient non-community water systems (4 water systems became "inactive") (3%);
- 4,979 (66%) were Monitoring/Reporting violations for 2,196 water systems:
  - 3,068 received by transient non-community water systems (126 water systems became "inactive") (62%);
  - 1,389 received by community water systems (22 water system became "inactive") (28%);
  - 343 received by non-transient non-community water systems (21 water systems became "inactive") (7%);
  - 111 received by recreational community water systems (1 water systems became "inactive") (2%);
  - 55 received by adjacent community water systems (2 water systems became "inactive") (1%); and
  - 13 received by adjacent recreational community water system (0 water systems became "inactive") (<1%);
- 1,997 (27%) were 'other' violations which are the Public Notice (PN) violations, Consumer Confidence Report (CCR) violations, CCR Certification Form violations, Lead Public Education violations, other TCR violations, SWTR and IESWTR violations, and Treatment Technique for TOCs for 1,285 water systems:
  - 543 received by transient non-community water systems (13 water systems became "inactive") (27%);
  - 1,380 received by community water systems (19 water systems became "inactive") (69%);
  - 47 received by non-transient non-community water systems (0 water systems became "inactive") (2%);
  - 8 received by recreational community water systems (0 water systems became "inactive") (<1%);
  - 14 received by adjacent community water systems (0 water systems became "inactive") (<1%);
  - 3 received by adjacent recreational community water systems (0 water systems became "inactive") (<1%); and
  - 2 received by seasonal community water systems (0 water systems became "inactive") (<1%);

In 2006, North Carolina's field staff performed 2,945 sanitary surveys. There were 4,261 other on-sites visit reasons which were performed as well. Examples of these other on-sites reasons are such items as "sample collection", "technical assistance", "investigations of complaints or violations", "emergency assistance", "engineering determination/advice", etc. Some of these 4,261 "reasons" were performed at the same time as the sanitary survey.

North Carolina allows variances and exemptions, but none were issued in 2006.

North Carolina requires all 48 unregulated (SOC and VOC) contaminants under the old section 141.40 to be tested along with the regulated contaminants.

### Definitions for Violation Table

**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. States report violations of the Lead and Copper Rule in the following six categories:

*Initial lead and copper tap M/R:* SDWIS Violation Code 51 indicates that 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:* SDWIS Violation Code 52 indicates that a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

*Treatment installation:* SDWIS Violation Codes 58 AND 62 indicate a failure to install optimal corrosion control treatment system (58) or source water treatment system (62) which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in these two categories].

*Public education:* SDWIS Violation Code 65 shows that 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 and 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:* SDWIS Contaminant Code 4000 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:* SDWIS Contaminant Code 4010 for combined radiation from these two isotopes above MCL of 5 pCi/L.

*Gross beta:* SDWIS Contaminant Code 4101 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 is to be submitted to EPA by January 1, 1998, is from July 1, 1996 through June 30, 1997. This interval will change for future annual reports. See guidance language for these intervals.

**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):* SDWIS Violation Code 36 indicates a system’s failure to carry out required tests, or to report the results of those tests.

*Treatment techniques (for filtered systems):* SDWIS Violation Code 41 shows a system’s failure to properly treat its water.

*Monitoring, routine/repeat (for unfiltered systems):* SDWIS Violation Code 31 indicates a system’s failure to carry out required water tests, or to report the results of those tests.

*Failure to filter (for unfiltered systems):* SDWIS Violation Code 42 shows 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:* SDWIS Violation Code 21 indicates that the system found fecal coliform or E. coli, potentially harmful bacteria, in its water, thereby violating the rule.

*Non-acute MCL violation:* SDWIS Violation Code 22 indicates that 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:* SDWIS Violation Codes 23 AND 25 show that a system did not perform any monitoring. [One number is to be reported for the sum of violations in these two categories.]

*Sanitary Survey:* SDWIS Violation Code 28 indicates 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.