

Chemical/Radiological Monitoring								
SDWIS Codes	Contaminant	MCL (mg/*) <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>Organic Contaminants</b>								
2981	1,1,1-Trichloroethane	0.2	0	0			5	5
2977	1,1-Dichloroethylene	0.007	0	0			5	5
2985	1,1,2-Trichloroethane	0.005	0	0			5	5
2378	1,2,4-Trichlorobenzene	0.07	0	0			5	5
2931	1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			0	0
2980	1,2-Dichloroethane	0.005	0	0			5	5
2983	1,2-Dichloropropane	0.005	0	0			5	5
2063	2,3,7,8-TCDD (Dioxin)	3x10-8	0	0			0	0
2110	2,4,5-TP	0.05	0	0			1	1
2105	2,4-D	0.07	0	0			1	1
2265	Acrylamide				0	0		
2051	Alachlor	0.002	0	0			1	1
2050	Atrazine	0.003	0	0			1	1
2990	Benzene	0.005	0	0			5	5
2306	Benzo[a]pyrene	0.0002	0	0			0	0
2046	Carbofuran	0.04	0	0			1	1
2982	Carbon Tetrachloride	0.005	0	0			5	5
2959	Chlordane	0.002	0	0			1	1
2380	cis-1,2-Dichloroethylene	0.07	0	0			5	5
2031	Dalapon	0.2	0	0			0	0
2035	Di(2-ethylhexyl)adipate	0.4	0	0			0	0
2039	Di(2-ethylhexyl)phthalate	0.006	0	0			0	0
2964	Dichloromethane	0.005	0	0			5	5
2041	Dinoseb	0.007	0	0			1	1
2032	Diquat	0.02	0	0			0	0
2033	Endothall	0.1	0	0			0	0
2005	Endrin	0.002	0	0			1	1
2257	Epichlorohydrin				0	0		
2992	Ethylbenzene	0.7	0	0			5	5
2946	Ethylene dibromide	0.00005	0	0			0	0
2034	Glyphosate	0.7	0	0			0	0
2065	Heptachlor	0.0004	0	0			1	1
2067	Heptachlor epoxide	0.0002	0	0			1	1
2274	Hexachlorobenzene	0.001	0	0			1	1
2042	Hexachlorocyclopentadiene	0.05	0	0			1	1

2010	Lindane	0.0002	0	0			1	1
2015	Methoxychlor	0.04	0	0			1	1
2989	Monochlorobenzene	0.1	0	0			5	5
2968	o-Dichlorobenzene	0.6	0	0			5	5
2969	p-Dichlorobenzene	0.075	0	0			5	5
2383	Total polychlorinated biphenyls	0.0005	0	0			1	1
2326	Pentachlorophenol	0.001	0	0			1	1
2987	Tetrachloroethylene	0.005	0	0			5	5
2984	Trichloroethylene	0.005	0	0			5	5
2996	Styrene	0.1	0	0			5	5
2991	Toluene	1	0	0			5	5
2979	trans-1,2-Dichloroethylene	0.1	0	0			5	5
2955	Xylenes (total)	10	0	0			5	5
2020	Toxaphene	0.003	0	0			1	1
2036	Oxamyl (Vydate)	0.2	0	0			1	1
2040	Picloram	0.5	0	0			1	1
2037	Simazine	0.004	0	0			1	1
2976	Vinyl chloride	0.002	0	0			5	5
<b>Inorganic Contaminants</b>								
1074	Antimony	0.006	0	0			1	1
1005	Arsenic	0.05	114	114			13	12
1094	Asbestos	7 million fibers/	0	0			0	0
1010	Barium	2	0	0			1	1
1075	Beryllium	0.004	0	0			1	1
1015	Cadmium	0.005	0	0			1	1
1020	Chromium	0.1	0	0			1	1
1024**	Cyanide (as free cyanide)**	0.2	0	0			1	1
1025	Fluoride	4	0	0			1	1
1035	Mercury	0.002	0	0			1	1
1040**	Nitrate**	10 (as Nitrogen)	15	15			440	429
1041	Nitrite	1 (as Nitrogen)	0	0			1	1
1045	Selenium	0.05	0	0			1	1
1085	Thallium	0.002	0	0			1	1
1038	Total nitrate and nitrite	10 (as Nitrogen)	0	0			0	0

Radionuclides								
4000	Gross Alpha	15 pCi/l	0	0			4	1
4010	Radium 226 and Radium 228	5 pCi/l	2	2			4	1
4100	Gross Beta	4 mrem/yr	0	0			0	0
<b>All Chemical Groups Subtotal</b>			131	130			597	468

Total Coliform Rule								
SDWIS Codes	Contaminant	MCL (mg/*) <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
21	Acute MCL Violation	Presence	11	9				
22	Non-acute MCL Violation	Presence	371	279				
23, 25	Major routine and follow up monitoring						869	717
28	Monitoring viol. for sanitary survey						0	0
<b>TCR Subtotal</b>			382	287			869	717

Lead and Copper Rule								
SDWIS Codes	Contaminant	MCL (mg/*) <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
51	Initial lead and copper tap M/R						50	35
52	Follow-up or routine lead and copper tap M/R						70	64
58, 62	Treatment Installation				0	0		
65	Public Education				1	1		
<b>LCR Subtotal</b>					1	1	120	98

Consumer Confidence Report Rule								
SDWIS Codes	Contaminant	MCL (mg/*) <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
71	Failure to produce CCR						15	14
<b>CCR Subtotal</b>							15	14

Public Notification Rule								
SDWIS Codes	Contaminant	MCL (mg/*) <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
75	PN for NPDWR violation						9	4
	<b>PN Subtotal</b>						9	4

Surface Water Treatment Rule								
SDWIS Codes	Contaminant	MCL (mg/*) <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>Filter Systems</b>							
36	Monitoring						0	0
41	Treatment Techniques				0	0		
	<b>Unfiltered Systems</b>							
31	Monitoring						0	0
42	Failure to Filter				0	0		
	<b>SWTR Subtotal</b>				0	0	0	0

Interim Enhanced Surface Water Treatment Rule								
SDWIS Codes	Contaminant	MCL (mg/*) <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
37	Failure to profile/consult				0	0		
43	CFE > 1 NTU				0	0		
44	> 5% CFE exceed 0.3 NTU				0	0		
47	Uncovered finished water storage				0	0		
29	Individual filter triggered activities						0	0
38	Monitor/report required parameters						0	0
09	Retain monitoring results						0	0
	<b>IESWTR Subtotal</b>				0	0	0	0

Stage 1 Disinfectants and Disinfection Byproducts Rule								
SDWIS Codes	Contaminant	MCL / MRDL (mg/*) <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
12	Certified treatment plant operator				1	1		
37	Notification of changes to treatment				0	0		
46	DBP precursor removal (TOC)				1	1		
27	Stage 1 DBPR Monitoring/Reporting						5	4
02-1009	Chlorite	1.0	0	0				
02-1011	Bromate	0.010	0	0				
02-2456	HAA5	0.060	4	1				
02-2950	TTHM	0.080	9	3				
11-1006	Chloramines MRDL	4.0	0	0				
11-0999	Chlorine MRDL	4.0	0	0				
11-1008	Chlorine Dioxide MRDL	0.8	0	0				
	<b>Stage 1 DBPR Subtotal</b>		13	2	2	1	5	4

Filter Backwash Recycle Rule								
SDWIS Codes	Contaminant	MCL (mg/*) <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
40	Improper treatment of recycled water				0	0		
39	Failure to notify State of practices						0	0
9	Failure to keep proper records						0	0
	<b>FBRR Subtotal</b>				0	0	0	0

<sup>1</sup> Values are in milligrams per liter (mg/l), unless otherwise specified.

Summary Table	
Total Number of Regulated Systems	11,450
Total Number of Systems in Violation (generally lower than the total number of violations, as one system may violate multiple requirements)	1,347
Total Number of Violations	2,172

## **Definitions for Violations Table**

The following definitions apply to the Summary of Violations 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 2009 PWS Annual Compliance Report is from January 1, 2009 through December 31, 2009.

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 TCR 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 TCR 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.