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ANNUAL DRINKING WATER COMPLIANCE REPORT FOR 2009

prepared by the

Drinking Water Program
Municipal Facilities Division
Environmental Health Section
North Dakota Department of Health

July 2010

INTRODUCTION

This Annual Compliance Report has been developed to meet the requirement of section 1414 of the 1996 Amendments to the Safe Drinking Water Act (SDWA). The time period covered in this report is January 1, 2009 through December 31, 2009.

The Drinking Water Program: An Overview

The Environmental Protection Agency (EPA) established the Public Water System Supervision (PWSS) Program under the authority of the 1974 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). 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 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, the Commonwealth of the Northern Mariana Islands, and the Republic of Palau.

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. To receive primacy, States must meet 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 57 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. To receive primacy, a Tribe must meet the same requirements as a State. To date, no Tribes have been granted primacy. Currently, EPA administers PWSS Programs on all Indian lands.

Annual State PWS Report

An automated database called the Safe Drinking Water Information System (SDWIS) has been developed by the EPA to store drinking water information. Primacy States submit data to the federal version of SDWIS (SDWIS/FED) on a quarterly basis. Data include PWS inventory statistics, the incidence of MCLs, Major Monitoring, and Treatment Technique violations, and the enforcement actions taken against violators. The annual compliance report that States are required to submit to EPA will provide a total annual representation of the numbers of violations for each of the four categories listed in section 1414 (c)(3) of the SDWA reauthorization. These four categories are: MCLs, treatment techniques, variances and exemptions, and significant monitoring violations. The EPA Regional Offices report the information for Wyoming, the District of Columbia, and all Indian Lands. Regional offices also report Federal enforcement actions taken. EPA stores this data in SDWIS/FED. This report is based largely on data retrieved from 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), nontransient noncommunity (such as schools or factories), or transient noncommunity systems (such as rest stops or parks). For this report, when the acronym “PWS” is used, it means systems of all types unless specified otherwise.

In North Dakota in 2009, 329 systems were classified as Community Water Systems (CWSs), 22 as Nontransient Noncommunity Water Systems (NTNCWSs), and 148 as Transient Noncommunity Water Systems (TNCWSs) for a total of 499 PWSs.

2009 SDWA Violations

The following tables depict SDWA violations incurred by North Dakota PWSs in calendar year 2009 and include violations that cross calendar year 2010 (i.e., violations determined in 2010 based on 2009 monitoring data). During 2009, a total of 164 major drinking water violations and 51 associated public notification violations were issued. A total of 98 out of 499 systems incurred these violations in North Dakota for 2009. EPA requires the reporting of these major drinking water violations in the Annual Compliance Report.

In addition to the major violations discussed above, the State of North Dakota issued 5 minor drinking water violations with no accompanying public notification violations during 2009. While EPA does not require the reporting of these minor drinking water violations in the Annual Compliance Report, the State of North Dakota does include them throughout the report for public information. Overall, 100 out of 499 systems incurred major and/or minor drinking water violations during 2009.

Availability of Annual Compliance Report (ACR)

A legal notice stating the availability of North Dakota's 2009 ACR was published in six of the state's major newspapers. A press release was also sent to all fifty-three county newspapers. The ND Drinking Water Program will provide a copy of this report to all inquiries. North Dakota's State Report is available by contacting the North Dakota Department of Health, Division of Municipal Facilities, 918 E Divide Ave-3rd Floor, Bismarck, ND 58501-1947, Attention: LeeAnn Tillotson (701)328.5293 (phone), (701)328.5200 (fax), or ltillots@nd.gov (e-mail).

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Organic Contaminants							
1,1,1-Trichloroethane	0.2	0	0			0	0
1,1,2-Trichloroethane	0.005	0	0			0	0
1,1-Dichloroethylene	0.007	0	0			0	0
1,2,4-Trichlorobenzene	0.07	0	0			0	0
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			0	0
1,2-Dichloroethane	0.005	0	0			0	0
1,2-Dichloropropane	0.005	0	0			0	0
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			0	0
Benzo[a]pyrene	0.0002	0	0			0	0
Carbofuran	0.04	0	0			0	0
Carbon tetrachloride	0.005	0	0			0	0

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Chlorobenzene	0.1	0	0			0	0
Chlordane	0.002	0	0			0	0
cis-1,2-Dichloroethylene	0.07	0	0			0	0
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
Dichloromethane	0.005	0	0			0	0
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			0	0
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

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
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			0	0
Oxamyl (Vydate)	0.2	0	0			0	0
para-Dichlorobenzene	0.075	0	0			0	0
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			0	0
Tetrachloroethylene	0.005	0	0			0	0
Toluene	1	0	0			0	0
Total polychlorinated biphenyls	0.0005	0	0			0	0
Toxaphene	0.003	0	0			0	0
trans-1,2-Dichloroethylene	0.1	0	0			0	0
Trichloroethylene	0.005	0	0			0	0
Vinyl chloride	0.002	0	0			0	0
Xylenes (total)	10	0	0			0	0

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Inorganic Contaminants							
Antimony	0.006	0	0			0	0
Arsenic	0.05	18	6			0	0
Asbestos	7 million fibers/L ≤ 10 μm long	0	0			0	0
Barium	2	0	0			0	0
Beryllium	0.004	0	0			0	0
Cadmium	0.005	0	0			0	0
Chromium	0.1	0	0			0	0
Cyanide (as free cyanide)	0.2	0	0			0	0
Fluoride	4.0	4	1			0	0
Mercury	0.002	0	0			0	0
Nitrate	10 (as Nitrogen)	0	0			0	0
Nitrite	1 (as Nitrogen)	0	0			0	0
Selenium	0.05	4	1			0	0

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Thallium	0.002	0	0			0	0
Total nitrate and nitrite	10 (as Nitrogen)	1	1			1	1
Subtotal		27	9			1	1

Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled. So, the sum of 'NUMBER OF PWS's IN VIOLATION', over the various violation types or contaminants, may not add up to the total number of violations.

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Radionuclide MCLs							
Gross alpha	15 pCi/L	0	0			0	0
Radium-226 and radium-228	5 pCi/L	0	0			0	0
Gross beta	4 mrem/yr	0	0			0	0
Uranium	30ug/l	0	0			0	0
Subtotal		0	0			0	0

Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled. So, the sum of 'NUMBER OF PWS's IN VIOLATION', over the various violation types or contaminants, may not add up to the total number of violations. * (Violations for radionuclides were reported as a radionuclide group.)

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Total Coliform Rule							
Acute MCL violation	Presence	3	3				
Non-acute MCL violation	Presence	19	15				
Major routine and follow up monitoring						61	52
Sanitary survey						0	0
Subtotal		22	18			61	52

Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled. So, the sum of 'NUMBER OF PWS's IN VIOLATION', over the various violation types or contaminants, may not add up to the total number of violations.

Minor routine and follow up monitoring						2	2
NOTE: EPA does not require minor monitoring violations to be counted for the ACR							

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Surface Water Treatment Rule (SDWA 1993)							
Filtered systems							
Monitoring, routine/repeat						0	0
Treatment techniques				0	0		
Unfiltered systems							
Monitoring, routine/repeat							
Failure to filter							
Subtotal				0	0	0	0
Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR)							
Filtered systems							
Monitoring, routine/repeat						0	0
Treatment techniques				0	0		
Unfiltered systems							
Monitoring, routine/repeat							
Failure to filter							
Subtotal				0	0	0	0

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)							
Filtered systems							
Monitoring, source water						0	0
Treatment techniques							
Unfiltered systems							
Monitoring, routine/repeat							
Failure to filter							
Subtotal						0	0

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
LT1ESWTR Failure to Monitor Minor NOTE: EPA does not require minor monitoring violations to be counted for the ACR						0	0

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Surface Water Treatment Rule (SDWA 1993)							
Record keeping for Ind. Filter							
Failure to Produce Filter Assessment/ Failure to Produce CPE							
Failure to Profile/Consult							
Failure to Monitor/Routine, Major						0	0
Single Combined Filter Effluent				0	0		
Monthly Combined Filter Effluent				0	0		
Uncovered Storage Facility				0	0		
Subtotal				0	0	0	0

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Long Term 1 Enhanced Surface Water Treatment Rule							
Record keeping for Ind. Filter						0	0
Failure to Produce Filter Assessment/ Failure to Produce CPE						0	0
Failure to Profile/Consult						0	0
Failure to Monitor Routine, Major						0	0
Single combined Filter Effluent				1	1		
Monthly Combined Filter Effluent				1	1		
Uncovered Storage Facility				0	0		
Subtotal				2*	1*	0	0
				*The same system incurred both of these violations; therefore, the system is counted only once per population subtotal.			

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Long Term 2 Enhanced Surface Water Treatment Rule							
Failure to meet sampling schedule requirements						0	0
Failure to meet sampling location requirements						0	0
Failure to meet analytical laboratory requirements						0	0
Failure to meet reporting requirements						0	0
Subtotal						0	0
Filter Backwash Recycle Rule							
Failure to Properly Recycle				0	0		
Recordkeeping						0	0
Subtotal				0	0	0	0

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Stage 1 Disinfectants and Disinfection By-products Rule							
Haloacetic Acids	0.060	3	1*			0	0
Total Trihalomethane	0.080	6	3*			0	0
Total Organic Carbon				0	0	0	0
Alkalinity				0	0	0	0
Chlorine/Chloramine	MRDL=4.0	0	0			31	31
Bromate/Bromide	0.01	0	0			0	0
Subtotal		9	3	0	0	31	31

* Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled. So, the sum of 'NUMBER OF PWS'S IN VIOLATION', over the various violation types or contaminants, may not add up to the total.

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Lead and Copper Rule							
Initial lead and copper tap M/R						1	1
Follow-up or routine lead and copper tap M/R						6	6
Treatment installation				0	0		
Public education						1	1
Consumer Notice						3	3
Subtotal				0	0	11	11
<p>Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled. So, the sum of 'NUMBER OF PWS'S IN VIOLATION', over the various violation types or contaminants, may not add up to the total.</p>							
Consumer Confidence Report Rule							
CCR Report Violation						0	0
Subtotal						0	0

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
CCR Adequacy/Availability/ Content Violation (MINOR Violation) NOTE: EPA does not require reporting of minor violations of Adequacy/Availability/ Content to be included in the ACR.						3	3
Public Notification Rule							
Public Notice Violations						51	36
Subtotal						51	36

State: North Dakota

Reporting Interval:

January 2009 - December 2009

	MCL/ MRDL (mg/L) ¹	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
Public Notice Violations for MINOR and/or ON-GOING Violations NOTE: EPA does not require Public Notice Violations pertaining to minor monitoring or on-going violations to be counted for the ACR						0	0

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

Definitions for Summary of Violations Table

The following definitions apply to the Summary of Violations Table.

Consumer Confidence Report (CCR) Rule: The CCR Rule requires all community water systems to issue annual drinking water quality reports to their customers. States are to report two categories of violations:

CCR Report Violation: A violation that exists when a PWS fails to produce and deliver the report to the public and provide a copy to the State by the annual due date or the State determines the report was grossly inadequate and must be regenerated and delivered providing a copy to the State.

CCR Adequacy/Availability/Content Violation: A violation where the State determines the report is deficient in language, content, and/or meeting availability requirements or if a community public water system fails to submit a completed certification form.

Stage 1 Disinfectants/Disinfection By-products (D/DBP) Rule: The D/DBP Rule currently requires community water systems supplied by surface water sources with a population serving greater than 10,000 to test for the regulated by-products potentially produced from the use of the disinfectants ozone, chlorine dioxide and chlorine.

Filter Backwash Recycle Rule (FBRR): The Filter Backwash Recycle Rule requires monitoring/reporting and treatment techniques for those public water systems that use surface water or ground water under the influence of surface water, practice conventional or direct filtration, and recycle spent filter backwash, thickener supernatant, or liquids from de-watering processes.

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].

Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR): The Long Term 1 Enhanced Surface Water Treatment Rule requires monitoring and treatment to improve control of microbial pathogens, specifically the protozoan cryptosporidium, in drinking water and to address risk trade-offs with disinfection by-products.

Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR): The Long Term 2 Enhanced Surface Water Treatment Rule requires monitoring data be collected so systems can categorize the source water cryptosporidium concentration into one of four bin classifications as associated with the rule.

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: 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 or source water treatment 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.

Maximum Residual Disinfectant Level (MRDL): 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.

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].

Public Notification Rule: This rule requires a public water system to notify the public anytime the system violates national primary drinking water regulations or has other situations posing a risk to public health.

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 the 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 the MCL of 5 pCi/L.

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

Uranium: A violation for uranium above the MCL of 30 ug/l.

Reporting Interval: The reporting interval for violations to be included in the Annual Compliance Report, which is to be submitted to EPA by July 1, 2009, 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.

Surface Water Treatment Rule (SDWA 1993): 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 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 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 reported for the sum of violations in these two categories.

Sanitary Survey: A major monitoring violation where a system fails to collect 5 routine monthly microbiological samples if a sanitary survey has not been performed during the previous 5 years.

Treatment Techniques: Treatment or other measures that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet operational and system requirements under the Surface Water Treatment Rule, the Lead and Copper Rule, and the Phase II Rule (Acrylamide and Epichlorohydrin) have been included in this category of violation for the purposes of this report.

Unfiltered Systems: Water systems (using surface water or groundwater under the direct influence of surface water) that are not required to filter their water prior to disinfection due to source and site-specific conditions [40 CFR, Subpart H].

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

VARIANCES AND EXEMPTIONS

Exemptions were granted for the following systems:

- An exemption from compliance with the Arsenic Rule was granted to the City of Dazey through January 23, 2009. The city has since become a consecutive user of Barnes Rural Water, which is a new source of water for the system, and has therefore returned to compliance.
- An exemption from compliance with the Arsenic Rule was granted to the City of Devils Lake through January 23, 2009. The City of Devils Lake began using an alternate source of water in April 2009. Recent monitoring for Arsenic indicates that the level of Arsenic in the water is below the MCL.

CONCLUSION

The vast majority of PWSs in North Dakota maintain an excellent SDWA compliance record. During 2009, 272 certificates of compliance were issued to operators and public water systems that maintained full compliance.

The following tables illustrate the high compliance rate (for calendar year 2009) maintained by North Dakota PWSs. It is the responsibility of each PWS under the SDWA to properly comply with all drinking water monitoring, reporting, MCL and treatment technique requirements.

Under the TCR, all PWSs are required to collect and submit a prescribed number of microbiological samples (based on population served) each month or quarter to a certified laboratory for analysis on an ongoing basis. Under the SWTR, PWSs that utilize surface water (currently 21 in North Dakota) are required to maintain finished water turbidity at or below certain target levels. Such systems are also required to maintain residual disinfectant concentrations at or above certain target levels (applies both to water entering and within the distribution system).

As it is nationwide, North Dakota's predominant compliance problem is ensuring that all required microbiological samples are collected. The department will continue to work with the PWSs in the state to improve compliance.

	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations
Organic Contaminants						
Community Water Systems (CWS)	329	100%	329	100%	329	100%
Nontransient Noncommunity Water Systems (NTNCWS)	22	100%	22	100%	22	100%
Transient Noncommunity Water Systems (TNCWS)	0				0	
Inorganic Contaminants						
CWS	329	99.3 %			329	100%
NTNCWS	22	95.5 %			22	100%
TNCWS	148	100 %			148	99.3 %

	MCLs/MRDLs		Treatment Techniques		Significant Monitoring/Reporting	
	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations
Radionuclides						
CWS	329	100%			329	100%
NTNCWS	0				0	
TNCWS	0				0	
Total Coliform Rule						
CWS	329	96.96 %			329	90.3 %
NTNCWS	22	90.9 %			22	100 %
TNCWS	148	95.94 %			148	86.49 %
Surface Water Treatment Rule¹ SDWA 1993						
CWS			0	100%	0	100%
NTNCWS			0		0	
TNCWS			0		0	
Long Term 1 Enhanced Surface Water Treatment Rule						
CWS			16	93.75 %	16	100%
NTNCWS			5	100 %	5	100%
TNCWS			0		0	
Long Term 2 Enhanced Surface Water Treatment Rule						
CWS			16	100%	16	100%
NTNCWS			4		4	
TNCWS			0		0	

	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Provide Report	Percentage of Systems with <u>No</u> Violations
Stage 1 Disinfectants/Disinfection By-products Rule²						
CWS	144	97.9 %	14	100%	144	78.47 %
NTNCWS	8	100%	5	100%	8	100%
TNCWS						
	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Provide Report	Percentage of Systems with <u>No</u> Violations
Lead and Copper Rule						
CWS			329	100 %	329	96.7 %
NTNCWS			22	100%	22	100%
TNCWS			0		0	
	MCLs					
	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Provide Report	Percentage of Systems with <u>No</u> Violations
Consumer Confidence Rule						
CWS					329	100%
NTNCWS					0	
TNCWS					0	

1. Only those systems that use surface water are required to monitor under and comply with the SWTR.

LIST OF SYSTEMS WITH VIOLATIONS IN 2009¹

Organic Contaminants

No violations for organic contaminants were issued in 2009.

Radionuclide Contaminants

Failure to Monitor/Report Violations

No violations for radionuclide contaminants were issued in 2009.

Inorganic Contaminant Violations

Community and Noncommunity Water Systems

Arsenic

Maximum Contaminant Level Violation (MCL) Average

Devils Lake, City of-1

Karlsruhe, City of-4

Kenmare, City of-4

Ryder, City of-4

Sundale Hutterian Association-2 (Sargent)

Upham, City of-3

Fluoride

Maximum Contaminant Level Violation (MCL), Average

Lakeshore Estates-4 (Mercer)

Selenium

Maximum Contaminant Level Violation (MCL), Average

Round Prairie School- 4 (Williams)

Nitrate/Nitrite

Maximum Contaminant Level Violation (MCL), Single Sample

Glen Berg Water Hauler (Ward)

Nitrate/Nitrite-Continued

Failure to Monitor/Report Violation

PJ's Crossroads Café (Dunn)

Lead and Copper Rule Violations

Community and Nontransient Noncommunity Water Systems

Initial Tap Sampling

Fessenden, City of

Follow-up or Routine Tap Monitor/Report Violations

Dunseith, City of

Mountain, City of

North Central RW Consortium-Riverdale (McLean)

North Prairie RWU-System II (Ward)

Reeder, City of

Souris, City of

Lead Public Education

Nome, City of

Lead Consumer Notice

Makoti, City of

Sundale Hutterian Association (Sargent)

Velva, City of

Microbiological Violations Community Water Systems¹

Acute Maximum Contaminant Level Violations (MCLA)

Hannaford, City of

Maximum Contaminant Level Violations (MCL)

Bowdon, City of

Brooktree Wells Inc. (Cass)

Country Acres Water Co.-2 (Cass)

Fairview Colony (LaMoure)

Home on the Range (Golden Valley)

Lehr, City of

Plaza, City of

Sibley, City of

Zeeland, City of

Failure to Monitor Major and Follow-Up Monitoring Violations (FMma and MaR)Microbiological Violations

Almont, City of

Colfax, City of

Country Acres MHP (Ward)

Dodge, City of

Dunn Center, City of

Fairview Colony (LaMoure)

Flasher, City of

Fradets Orchard Water System (Cass)

Glen Ullin, City of

Harwood, City of

Hazelton, City of

Hebron, City of

Hope, City of

Leeds, City of

Marmarth, City of

Max, City of

Mckenzie County Rural Water

Mercer, City of-2

Milton, City of

Failure to Monitor Major and Follow-Up Monitoring Violations (FMma and MaR)Microbiological Violations-continued

New Hradec Waterworks (Dunn)

Portland, City of

Rock Lake, City of

Selz Water Users Association (Pierce)

St. John, City of

Stanley, City of

Talbott Trailer Court (Ward)

Tioga, City of

Warwick, City of

West River Water and Sewer (Ward)

Willowbank Colony (LaMoure)

Wyndmere, City of

Failure to Monitor Minor and Follow-Up Monitoring Violations Community Water Systems (FMmi and MiR)

NOTE: EPA does not require minor monitoring violations to be counted for the ACR.

Country Acres Water Co. (Cass)

Zeeland, City of

**Microbiological Violations
Noncommunity Water Systems**

Acute Maximum Contaminant Level Violations (MCLA)

Northgate Port of Entry (Burke) (System Inactivated 8-25-09)
Pat's Motel & Campground (Ward)

Maximum Contaminant Level Violations (MCL)

Beulah Bay Rec Area #2-2 (Mercer)
Cross Ranch State Park-2 (Oliver)
Fordville Public School (Walsh)
Lake Tschida Downstream Campground (Grant)
Mouse River Farmers Union Camp (McHenry)
Tioga Golf and Country Club (Williams)

**Failure to Monitor Major and Follow-Up Monitoring Violations
(FMma and MaR)**

A&J Lodge-2 (Barnes)
Badlands Ministries (Billings)
Deepwater Bay MHP (Mountrail)
Fort Rice B & G Inc (Morton)
Indian Hills Resort (McLean)
Kelvin Clinic Bar (Rolette)
LaMoure County Memorial Park (LaMoure)
Lewis & Clark State Park-4 (Williams)
Long X Saloon (McKenzie)
Manikowski Well Drilling Inc.-2 (Sargent)
Pat's Motel and Campground (Ward)
PJs Crossroads Café-2 (Dunn)
Sand Dune Saloon (Ransom)
Sarles Bar (Cavalier)
Stockmen's Livestock Café (Stark)
Sully Creek State Park (Billings)
Sullys Hill Nat'l Game Preserve (Billings)
Tobacco Garden Recreation Area (McKenzie)
Triangle Y Camp (McLean)
Voyager Cove Camp (Mercer)
Waldos Bar (Walsh)

**Microbiological Violations
Noncommunity Water Systems-continued
Failure to Monitor Minor and Follow-Up Monitoring Violations
(FMmi and MiR) NOTE: EPA does not require minor monitoring
violations to be counted for the Annual Compliance Report.**
none

**Surface Water Treatment Rule Violations
(SDWA 1993)**

**Long-Term 1 Interim Enhanced Surface Water Treatment Rule
Violations**

Single Combined Filter Effluent (IESWTR/LT1)
Washburn, City of

Monthly Combined Filter Effluent(IESWTR/LT1)
Washburn, City of

Stage 1 Disinfection By-Products Rule Violations

Total Haloacetic Acids(HAA5)

Maximum Contaminant Level Violation (MCL), Average
Washburn-3

Total Trihalomethanes(TTHM)

Maximum Contaminant Level Violation (MCL), Average
Dakota Rural Water District South (Griggs)
Drayton, City of-2
Washburn, City of-3

Chloramine

Failure to Monitor Major Violations

Almont, City of
Dodge, City of
Dunn Center, City of
Flasher City of
Hebron, City of
Max, City of
New Hradec Waterworks (Dunn)
Regent, City of
Talbott Trailer Court (Ward)
Trenton Water Users Assoc (Williams)
Zeeland, City of

Chlorine

Failure to Monitor Major Violations

Bisbee, City of
Coleharbor, City of
Country Acres MHP (Ward)
Flaxton, City of
Galesburg, City of
Harwood, City of
Marmarth, City of
McKenzie County Rural Water
Mercer, City of
Milton, City of
Missouri River Correctional Center (Burleigh)
Mountain, City of
Portland, City of
Rock lake, City of
Selz Water Users Association (Pierce)
Sibley, City of
Stanley, City of
Tioga, City of
Warwick, City of
Wyndmere, City of

Consumer Confidence Rule Report Violations (Minor)

Adequacy/Availability/Content

Colfax, City of
Riverview Heights (Morton)
Rock Lake, City of

Public Notification Rule Violations

Community Water Systems

Almont, City of-2
Country Acres MHP-2 (Ward)
Dunn Center, City of
Dunseith, City of
Fairview Colony-2 (LaMoure)
Flaxton, City of
Fradets Orchard Water System (Cass)
Marmarth, City of-2
Mercer, City of
New Hradec Waterworks (Dunn)
North Prairie RWU-System II (Ward)
Regent, City of
Rock Lake, City of-2
Selz Water Users Association (Pierce)
Souris, City of
Stanley, City of-2
Talbott Trailer Court-2 (Ward)
Warwick, City of-2
Willowbank Colony (LaMoure)
Zeeland, City of

Public Notification Rule Violations

Noncommunity Water Systems

A & J Lodge-2 (Barnes)

Deepwater Bay MHP Mountrail)

Fort Rice B & G Inc. (Morton)

Glen Berg Water Hauler (Ward)

Indian Hills Resort (McLean)

LaMoure County Memorial Park

Lewis & Clark State Park-4 (Williams)

Long X Saloon (McKenzie)

Manikowski Well Drilling Inc.-2 (Sargent)

Mouse River Farmers Union Camp (McHenry)

Pat's Motel & Campground (Ward)

PJs Crossroads Café-3 (Dunn)

Round Prairie School (Williams)

Sarles Bar (Cavalier)

Tobacco Garden Recreation Area (McKenzie)

Voyager Cove Camp (Mercer)

1. Multiple violations within a specified category are represented by a number following the system name (i.e., "Karlsruhe, City of -4" under Arsenic Maximum Contaminant Level Violation (MCL) Average means that the City of Karlsruhe incurred 4 MCL violations during the reporting period). Counties are in parentheses.