

SUMMARY OF ANNUAL DRINKING WATER COMPLIANCE REPORT FOR 1997

prepared by the

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

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INTRODUCTION

The Federal Safe Drinking Water Act (SDWA) was significantly amended in 1996. The amended SDWA contains many new provisions, several of which are intended to improve consumer awareness on drinking water compliance issues. One such provision requires states to prepare and submit to the U.S. Environmental Protection Agency (EPA) an annual report on public water system (PWS) violations within their state. The EPA, in turn, is required to summarize the states' reports in an annual national report and make the report available to the public.

This report represents a summary of the full 1997 report provided to the EPA to satisfy the requirement. Please note that there are only minor differences between this summary report and the full report. The full report describes all other SDWA contaminants for which there were no violations incurred by North Dakota PWSs (including associated definitions). Otherwise, the reports are identical.

Public Water System

A 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, 319 systems are classified as Community Water Systems (CWSs), 37 as Nontransient Noncommunity Water Systems (NTNCWSs), and 230 as Transient Noncommunity Water Systems (TNCWSs) for a total of 586 PWSs.

1997 SDWA Violations

The following tables depict SDWA violations incurred by North Dakota PWSs in calendar year 1997 and include: unresolved violations (from previous calendar years); and, violations that cross calendar year 1997 (i.e., violations determined in 1998 based on 1997 monitoring data).

State: North Dakota

Reporting Interval:

January 1997 - December 1997

	MCL (mg/L) 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
ORGANIC CONTAMINANTS							
Acrylamide				1	1		
Benzene	0.005	1	1				
Subtotal		1	1	1	1		
INORGANIC CONTAMINANTS							
Arsenic	0.05	2	2				
Fluoride	4.0	3	3				
Total nitrate and nitrite	10 (as Nitrogen)	3	3			1	1
Subtotal		8	8			1	1
TOTAL COLIFORM RULE							
Acute MCL violation	Presence	4	4				
Non-acute MCL violation	Presence	33	24				
Major routine and follow up monitoring						133	93
Subtotal		37	28			133	93

State: North Dakota

Reporting Interval:

January 1997 - December 1997

	MCL (mg/L) 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
SURFACE WATER TREATMENT RULE							
Filtered systems							
Monitoring, routine/repeat						1	1
Treatment techniques				9	6		
Subtotal				9	6	1	1
LEAD AND COPPER RULE							
Initial lead and copper tap M/R						1	1
Follow-up or routine lead and copper tap M/R						3	3
Public Education				3	3		
Subtotal				3	3	4	4

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.

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: 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.

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].

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, 1998, is from January 1, 1997 through December 31, 1997.

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 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.

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

VARIANCES AND EXEMPTIONS

North Dakota presently has no PWSs operating under a variance or exemption.

CONCLUSION

The vast majority of PWSs in North Dakota maintain an excellent SDWA compliance record. Annually, approximately 400 Certificates of Compliance are issued to operators who maintain full compliance.

The following tables illustrate the high compliance rate (for calendar year 1997) 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 30 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)	319	99.4%			319	100%
Nontransient Noncommunity Water Systems (NTNCWS)	37	100%			37	100%
Transient Noncommunity Water Systems (TNCWS)	0				0	
Inorganic Contaminants						
CWS	319	98.4%			319	99.7%
NTNCWS	37	100%			37	100%
TNCWS	230	98.7%			230	100%

	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
Radionuclides						
CWS	319	100%			319	100%
NTNCWS	37	100%			37	100%
TNCWS	0				0	
Total Coliform Rule						
CWS	319	95.6%			319	84%
NTNCWS	37	97.3%			37	89.2%
TNCWS	230	95.6%			230	83.5%
Surface Water Treatment Rule¹						
CWS			20	80%	20	100%
NTNCWS			8	75%	8	87.5%
TNCWS			2	100%	2	100%
Lead and Copper Rule						
CWS			319	99%	319	98.7%
NTNCWS			37	100%	37	100%
TNCWS			0		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 1997¹

Organic Violations

Community and Noncommunity Water Systems

Acrylamide Treatment Technique Violation

Beulah

Benzene Maximum Contaminant Level (MCL) Violation

Carrington - unresolved violation from previous calendar year

Source of Benzene contamination under remediation

Compliance achieved 9/97

Inorganic Violations

Community and Noncommunity Water Systems

Arsenic MCL Violation

Strasburg - unresolved violation from previous calendar year

Galesburg

Fluoride MCL Violations

Glen Ullin - unresolved violation from previous calendar years

Has signed a service contract with Southwest Pipeline to resolve compliance problem

Hettinger - unresolved violation from previous calendar years

100% consecutive user of Southwest Pipeline

Compliance achieved 12/97

Reeder - unresolved violation from previous calendar years

100% consecutive user of Southwest Pipeline

Compliance achieved 12/97

Total Nitrate and Nitrite MCL Violations

Towner State Nursery (McHenry County)

Irrigation wells put in to remediate contamination

Two Way Inn & Bar (Mountrail County) - unresolved violation from previous calendar years

Signed contract to be 100% consecutive user of City of Stanley

Deactivation of PWS anticipated in 1998

Woodland Park Inn (Barnes County) - unresolved violation from previous calendar years

Possible consecutive user to Valley City or Barnes Rural Water

Total Nitrate and Nitrite Failure to Monitor Violation

Colony Trailer Park (Ward County)

Microbiological Violations

Community Water Systems

Acute Maximum Contaminant Level Violations (MCLA)

Alexander

Selfridge

Maximum Contaminant Level Violations (MCL)

Alexander

Battleground Addition (Ward County)

Berthold - 3

Dazey

Goodrich - 2

Lehr

Linton

Oxbow

Selfridge

Selkirk Settlement (Cass County)

Souris

Tolna

Underwood

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

Almont - 3

Aneta

Argusville

Arthur

Barney - 2

Battleground Addition (Ward County) - 3

Buffalo

Colony Trailer Park (Ward County)

Crary - 2

Dazey
Dodge
Dunseith
FMma and MaR con't
Ellendale
Elliot - 4
Flaxton
Forman
Fradets Orchard Water System (Cass County)
Gackle
Glenfield
Golva - 2
Halliday
Havana - North System
Hay Creek Court (Burleigh County)
Horseshoe Bend Addition (Cass County) - 2
Langdon Rural Water
Litchville - 5
Meadowbrook Park Road & Water Inc (Cass County)
Medora
Mercer - 2
Monango - 6
New Town - 3
Oriska - 2
Park River
Pekin
Portal
Ross
Rutland
Selfridge
Sibley
Sleepy Hollow Water Company (Cass County) - 2
Solen
Talbot Trailer Court (Ward County)
Trenton Water Users
Tri-County Water Users (Nelson County)
Tuttle
Walcott

Watford City
Wildrose
Wimbledon - 2
Wishek
Woodworth

Microbiological Violations

Noncommunity Water Systems

Acute Maximum Contaminant Level Violations (MCLA)

Franks Place (McHenry County)
Schoolhouse Cafe (Foster County)

Maximum Contaminant Level Violations (MCL)

Alexander Water Spring (McKenzie County)
Brendles Travel Trailer (Mountrail County)
Carlsons Water Service (Ward County)
Eagles Aerie #2968 (Ransom County) - 2
Franks Place (McHenry County) - 2
Garden Valley School (Williams County) - 3
Glen Berg Water Hauler (Ward County) - 2
Knickerbocker Liquor Locker (Cass County) - 2
Park River Bible Camp (Walsh County)
Schoolhouse Cafe (Foster County)
Strawberry Lake Campground (Bottineau County)

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

ADM Corn Processing (Pembina County)
Arnegard Ballpark (McKenzie County)
Arnegard Cafe (McKenzie County)
Asbury Camp Meeting (McLean County)
Border Central High School (Cavalier County)
Coyote Station (Mercer County)
Dakota's Bar and Diner (Hettinger County)
East Quarter Restaurant (Stark County)
Enderlin Golf Course (Ransom County)
Franks Place (McHenry County)
George's Gathering (Rolette County) - 2

Grandview Motel (Williams County) - 3
Heart Butte F U Camp (Grant County)
Henry Topolski Water Hauler (Burke County)- 3
Home Plate Cafe (Logan County)
Kelvin Clinic Bar (Rolette County)
Knickerbocker Liquor Locker (Cass County)
Lady Bird Restaurant (Cass County)

FMma and MaR con't

Lake View Supper Club (Richland County)
Lamoure County Memorial Park (Lamoure County)
Larsons Drive Inn (Grand Forks County)
Leonard Cafe & Grocery (Cass County) - 3
Long X Saloon (McKenzie County) - 3
Mouse River F U Camp (McHenry County)
Mt Carmel Rec Area (Cavalier County)
Napoleon Livestock Cafe (Logan County)
Park River Bible Camp (Walsh County)
Schoolhouse Cafe (Foster County)
Simons Cafe (Walsh County)
Solid Comfort Inc (Cass County)
Springbrook Bar (Williams County)
Stake Out (Adams County)
Strawberry Lake Campground (Bottineau County)
The Bar (Williams County) - 3
The Big Opening (McKenzie County) - 2
Tobacco Garden Rec Area (McKenzie County) - 2
Triangle Y Camp (McLean County)
Turtle Mountain Lodge (Bottineau County)
VFW Club (Williams County)
Wheel Inn Lounge (Pierce County)
Woodland Park Inn (Barnes County) - 2
Woodland Resort (Ramsey County)

Surface Water Treatment Rule

Community and Noncommunity Water Systems

Treatment Technique Violations

Antelope Valley Station (Mercer County)
Fargo

Minot
Pick City
ProGold Corn Wet Milling Plant (Richland County) - 2
Washburn - 3

Failure to Monitor Routine/Repeat Violations

ProGold Corn Wet Milling Plant (Richland County)

Lead and Copper Rule

Community and Noncommunity Water Systems

Initial Lead and Copper Tap Failure to Monitor/Report Violations

Almont - unresolved violation from previous calendar years
Sampled in January - June 1997 & July - December 1997
Compliance achieved 12/97

Follow-Up or Routine Lead and Copper Tap Failure to Monitor/Report Violations

Colony Trailer Park (Ward County)
Fullerton
Ryder

Public Education Violations

Edgeley
Materials received 1/98
Compliance achieved 1/98
Plaza
Talbot Trailer Court (Ward County)
Materials received 1/98
Compliance achieved 1/98

1. Multiple violations within a specified category are represented by a number following the system name (i.e., "Berthold - 3" under Microbiological Violations, Community Water Systems, MCL Violations means Berthold incurred 3 MCL violations during the reporting period).