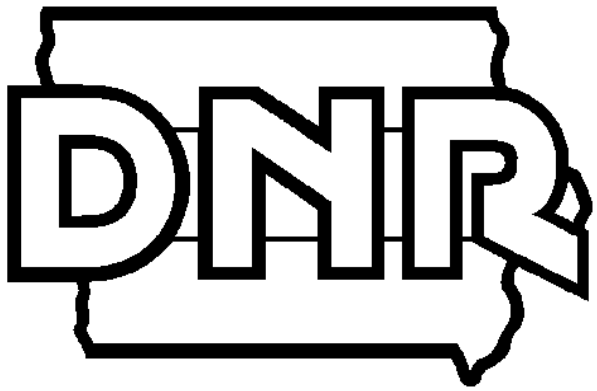
# State of Iowa

# Public Drinking Water Program
# 2000 Annual Compliance Report




Environmental Protection Division
Water Quality Bureau
Drinking Water Supply Section

June 2001

Iowa Department of Natural Resources
Jeffrey R. Vonk, Director

# Table of Contents

# 2000 Iowa Public Drinking Water Program

# Introduction

The Iowa Department of Natural Resources (IDNR) - Environmental Protection Division administers the Public Drinking Water Program in Iowa under delegation of authority from the United States Environmental Protection Agency (EPA).

The 1996 reauthorized Safe Drinking Water Act (SDWA) required that each State with primary enforcement responsibility for the SDWA must prepare, make readily available to the public, and submit to the EPA an annual report on violations of national primary drinking water regulations by public water supply systems (PWSs) in the state.

This report fulfills this responsibility in Iowa for the 2000 calendar year.

In this report, numerous initialisms, such as PWS for Public Water Supply and MCL for Maximum Contaminant Level, are used. For the benefit of the reader, the first time an initialism is used, it is defined. Thereafter, only the initialism is used. There is a glossary of definitions of these initialisms at the end of this report.

This report may also be accessed at the following internet website address:
*http://www.state.ia.us/epd/wtrsuply/report/report.htm*

# Report Summary

## The Annual Compliance Report

This is the annual report on violations of the national primary drinking water regulations incurred by Iowa PWSs. The report includes violations of:

- Maximum Contaminant Levels (MCL),
- Treatment Technique Requirements (TT),
- Action Level (AL) Milestones,
- Variances and Exemptions (V/E) (not applicable in Iowa), and
- Monitoring and Reporting Requirements (M/R) – major violations only.

## The 2000 Report Highlights

- No waterborne disease outbreaks or deaths were reported as being attributed to drinking water from regulated PWSs.

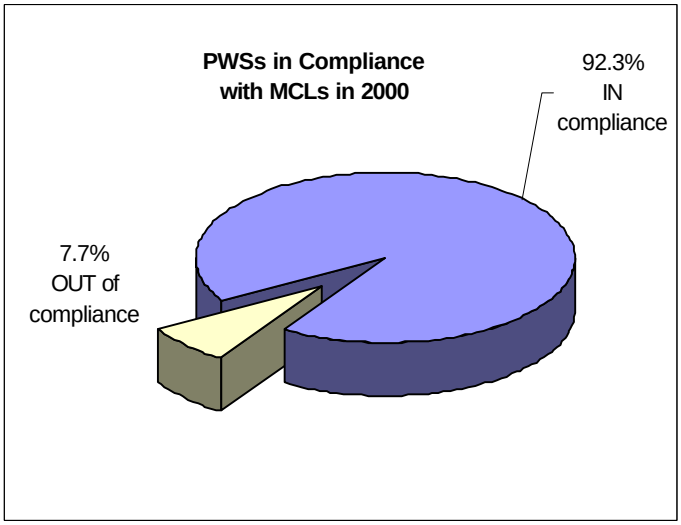
- During the 2000 calendar year, there were 1,995 PWSs that were active during all or part of the year serving a total of 2,628,857 persons.
- 722 community and non-transient non-community PWSs were required to monitor for lead and copper in 2000. Action levels were exceeded in 6.2% or 45 of these PWSs.

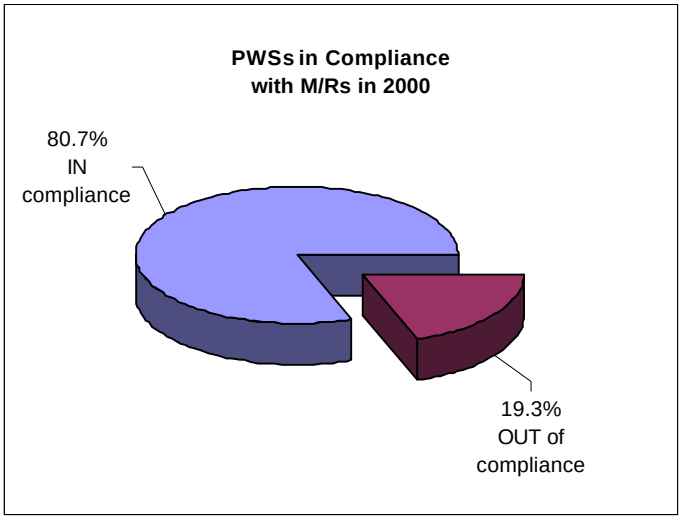
- 92.3% of all of the regulated PWSs were in compliance with all MCLs. 153 PWSs received MCL violations for one or more contaminants.
  - There were 277 MCL violations issued, of which 55.2% achieved compliance as of June 2001.
    - 66.4% of these violations were issued for exceeding the coliform bacteria MCL.
    - 27.8% of these violations were issued for exceeding the nitrate MCL.
    - 0.7% of these violations were issued for exceeding the nitrite MCL.
    - 5.1% of these violations were issued for exceeding other chemical MCLs.
  - Eight of the 83 regulated compounds were found at levels above the MCL**:**
    - combined radium 226/228
    - di(2-ethylhexyl)-phthalate
    - fluoride
    - gross alpha, excluding radon and uranium
    - nitrate
    - nitrite
    - total coliform
    - total trihalomethanes

- 80.7% of all of the regulated PWSs were in compliance with all M/R requirements. 373 PWSs received M/R violations for one or more contaminants.
  - There were 1409 M/R violations issued, of which 93.0% achieved compliance as of June 2001.
    - 35.0% of these violations were issued for failing to monitor for volatile organic compounds (VOCs).
    - 21.6% of these violations were issued for failing to monitor for coliform bacteria.
    - 18.5% of these violations were issued for failing to monitor for synthetic organic com pounds (SOCs).
    - 16.2% of these violations were issued for failing to monitor for nitrate.
    - 4.2% of these violations were issued for failing to monitor for inorganic compounds, excluding nitrate and nitrite.
    - 2.1% of these violations were issued for failing to monitor for lead and copper.
    - 1.8% of these violations were issued for failing to monitor for nitrite.
    - 0.6% of these violations were issued for failing to monitor for other chemicals.

## Summary of Data

Specific details of the program and violation data are explained in the Full Report.




For Community Water Systems (CWS) the following statistics apply for the reported year:

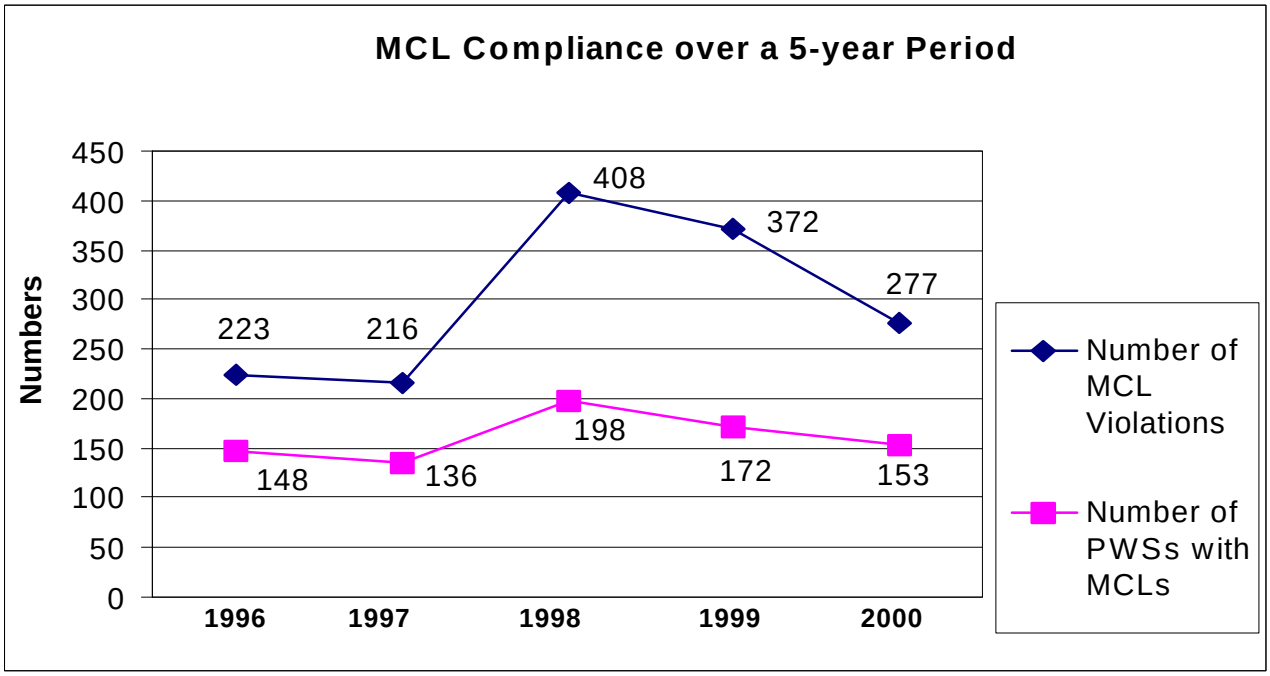
- 66 CWS incurred 121 MCLs, which affected 2.4% of the total number of consumers.
- 131 CWSs received 813 M/Rs, which affected 5.6% of the total number of consumers.

Number of Samples Collected
There were a total of 80,640 samples collected from all the PWSs for compliance purposes. The largest number of samples reported (36.7%) were for coliform bacteria, which is collected monthly for all CWSs.

Public Notification
31.6 % of all PNs required have achieved compliance with the PN requirements.

## Comparison with Previous Years – MCL Violations and PWSs

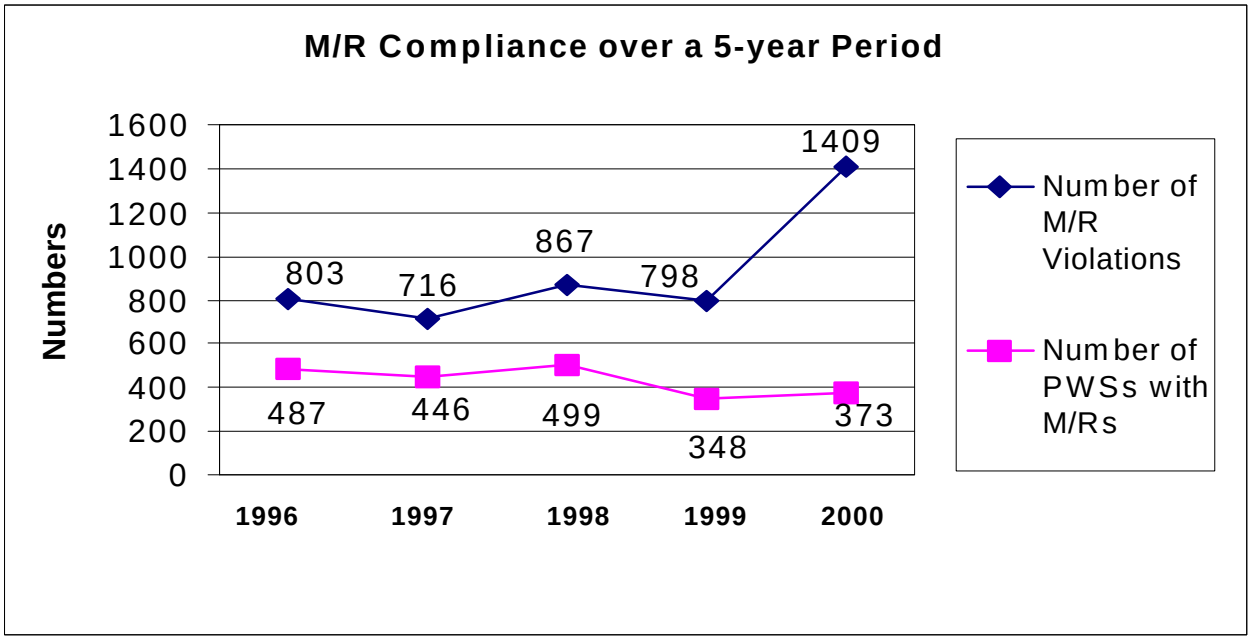
This chart compares compliance with all MCLs over the 5 years this report has been available.




The data in this chart indicates that MCL violations increased between 1997 and 1998, but have decreased since that date. This variation is due to a number of factors:

- An increase in staff in 1998 enhanced our ability to increase and improve our enforcement capabilities. Hence, the number of MCL violations increased starting that year.
- Starting 1998 the department stepped up its compliance efforts, issuing MCL violations for nitrate exceedance monthly instead of quarterly as had been done in prior years, therefore the number of MCL violations issued increased significantly.
- Enhanced computer capability also meant that staff were able to track MCL and M/R violations more accurately and respond more quickly.
- The increased number of staff in both the central office and field offices provided the opportunity for increased technical assistance to PWS operators to instruct them in their requirements and assist with compliance.
- Reflected in the 1999 and 2000 data, the decrease in violations and in the number of PWSs that violated indicates that the above steps taken to enforce MCL and M/R criteria proved successful.
- While annual weather patterns can have a major influence on the number of MCLs incurred, this factor has not been included in this analysis.

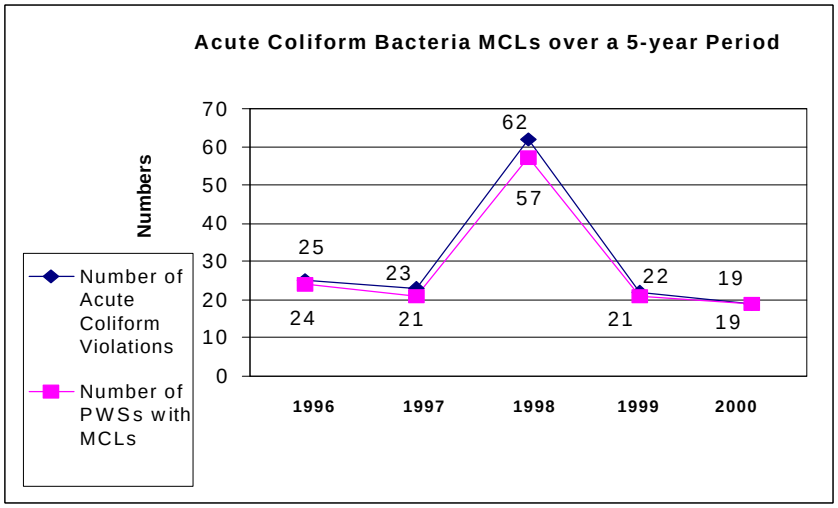
## Comparison with Previous Years – M/R Violations and PWSs

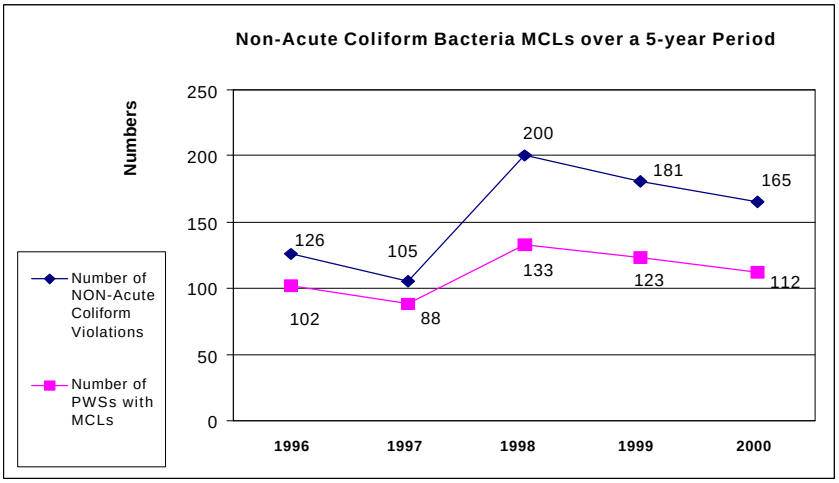


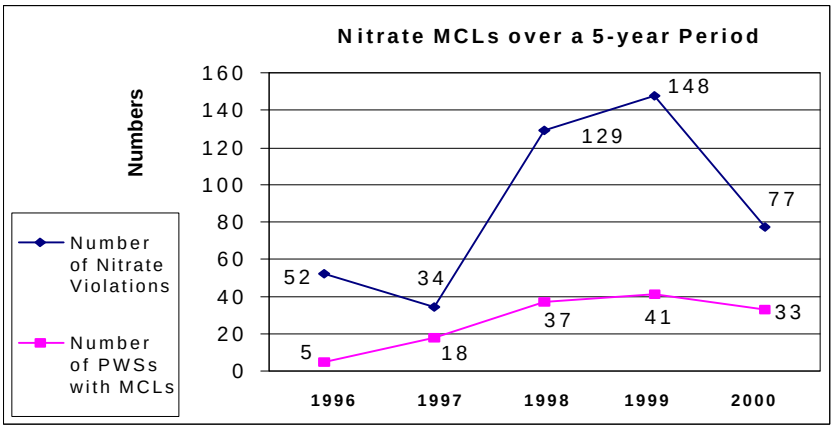

The data in this chart indicates a similar increase in monitoring violations (M/R) starting in 1998, and decreasing for 1999. The factors listed for influencing MCL compliance are the same. However there is a significant increase in M/R violations starting in 2000. The largest number of these M/R violations (54%) come from a failure to collect organic chemical monitoring samples. At least three factors influence this number:

- Organic monitoring requirements are cyclical, being required every 5 to 9 years. In 2000, more PWSs were required to monitor for these compounds than in prior years, and failed to do so.
- Prior to 2000, only one monitoring violation was assigned per analytical "group" for inorganic and organic compounds. Enhanced computer capability and EPA requirements have now resulted in the assignment of one M/R violation per analyte, thereby significantly increasing the number of violations issued per PWS. This method of assignment of violations will continue in future years, thereby making this data from 2000 on forward statistically comparable.
- Monitoring requirements that occur infrequently (such as once per year or once per 3 years or greater) are often missed because they are forgotten due to the great length of time between sample collections. This may explain the slight rise in the number of PWSs with M/R violations since last year. For this reason, the department is now issuing "reminder" notices to assist in compliance with these monitoring requirements

Generally, Iowa's drinking water supply is safe. Isolated incidences of bacterial contamination are quickly dealt with as they occur. The number of PWSs affected by acute and non-acute Coliform MCL violations has decreased since 1999.




The same logic applies to the number of MCLs incurred for acute and non-acute coliform bacteria violations and nitrate MCLs. Increased staffing and enhanced computer capabilities contributed to the increased the number of MCL violations assigned. Aggressive technical assistance and enforcement actions influenced the decrease in the number of MCL violations assigned since 1998.

# The IDNR Mission

The Environmental Protection Division of the Iowa Department of Natural Resources administers the Public Drinking Water Program in Iowa under delegation of authority from the EPA. The IDNR Public Drinking Water Program's mission is to protect and enhance public health and safety, and the quality of life for all persons by ensuring the public drinking water is safe to drink. This mission is accomplished by ensuring the:

- drinking water quality is monitored on a routine basis at each public water supply,
- public water supply systems (PWSs) are designed, operated, and maintained to minimize the possibility of contamination, and
- the public is notified when the water supply is not in compliance with the drinking water quality standards.

## The IDNR Drinking Water Program Components

The IDNR has seven components of the drinking water program: on-site inspection and technical assistance, operation permitting, construction permitting, water use permitting, certification of water system operators, certification of laboratories, and financial assistance. The IDNR staff works in conjunction with the operators of the state's public water supply systems to ensure compliance with the drinking water regulations and to provide safe drinking water to the state's citizens and visitors. Listed below are the IDNR program components.

**On-Site Inspection**:
Each of the six state regions has environmental specialists, whose responsibilities are to:

- conduct site surveys for well and treatment facility placement,
- inspect every PWS in the state at least every five years, which includes examination of the operation and maintenance of the PWS system,
- provide technical assistance to water supply operators,
- respond to complaints from the public, and
- provide emergency response to spills that may threaten the water resources.

**Operation Permit:**
The compliance and enforcement specialists:

- issue the operation permits for each PWS at least every three years, which specify the individual monitoring and operation requirements,
- monitor the compliance by each PWS with the drinking water program requirements,
- prepare violations notices and enforcement actions when necessary, and
- provide technical assistance to the PWS.

**Construction Permit:**
The environmental engineers:

- review design specifications for wells, distribution systems, and treatment plants,
- issue construction permits for PWS projects,
- determine project eligibility for the drinking water state revolving loan fund,
- review viability assessments and source water protection plans, and
- assist PWSs and consulting engineers in various treatment technologies for specific water quality problems.

**Water Use Permit:**
The water use engineers:

- allocate and track the withdrawal of water from Iowa's aquifers and surface waters,
- issue ten-year water use permits, and
- review water conservation plans.

**Operator Certification:**
The operator certification program requires operators to successfully complete a written exam and to earn continuing education credits every two years. There are various levels of certification available for water treatment and water distribution systems. Currently all municipalities, rural water systems, state and federally owned systems, and systems served by surface waters or groundwaters influenced by surface water, must have a certified operator in direct responsible charge of the system.

**Laboratory Certification:**
PWSs must monitor for specified compounds on a regular frequency, and they must use laboratories that are certified by the department. The laboratory certification program requires all laboratories conducting analyses for drinking water program compliance purposes to be certified, which includes an on-site inspection every two years and annual proficiency testing for each analyte.

**Financial Assistance:**
Iowa 's drinking water state revolving fund (SRF) program makes loans to drinking water systems for design and construction to ensure public health and provide safe drinking water. IDNR publishes loan priorities each year in its Intended Use Plan (IUP). Scoring criteria addresses health risks, rule compliance, and infrastructure needs, including criteria for loan eligibility. The criteria uses a point system based on Maximum Contaminant Level (MCL) violations, system vulnerability, infrastructure improvement needs, population, and design deficiencies.

To be eligible for placement on IDNR's Priority List, a PWS must have an preliminary engineering study of potential system needs (e.g., a "planning" study) approved by the Department, and must include:

- a description of the type of project for which financial assistance is being requested,
- the amount of financial assistance being requested, and
- a proposed preliminary project construction schedule.

The loan interest rate will be discounted up to 2% below the market rate (in the first three years of the program, the loan rate was ~ 3.5%). All loans are 20 years. Loans must be a minimum of $50,000.

The IDNR and operators of public water supply systems in Iowa are working together to ensure the safety of the state's public water supplies. The annual compliance report contains the specific monitoring requirements for the state's drinking water supplies and lists all violations of maximum contaminant levels, treatment techniques, and major monitoring/reporting requirements.

# The Public Drinking Water Program: An Overview

The United States Environmental Protection Agency (EPA) established the Public Water System Supervision (PWSS) Program under authority of the 1974 Safe Drinking Water Act and subsequent amendments.

- EPA sets national limits on allowable contaminant levels in public drinking water supplies (PWS's) to ensure the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCL's).
- For some contaminants, EPA establishes Treatment Techniques (TT's) or Action Level (AL) Milestones in lieu of an MCL to control unacceptable levels of contaminants in public drinking water.
- EPA also regulates how often PWS's monitor for contaminants and requires those monitoring results be reported to the agency administering the PWSS Program in the state or territory.
- The SDWA also requires PWS's to monitor for unregulated contaminants to provide data for future regulation development.
- EPA requires PWS's to notify the public they serve when violations of the drinking water regulations occur. Public notification must include a clear and understandable explanation of the nature of the violation, potential adverse health effects resulting from the violation, steps the PWS is taking to correct the violation, and the availability and necessity of using alternative water supplies until the violation is corrected.

The SDWA applies to all 50 States, the District of Columbia, Native American 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 the PWSS Program within their state or territory, which is called primacy. To receive primacy, States must meet certain requirements set forth in the SDWA regulations, including adoption of drinking water regulations which are at least as stringent as federal regulations, and demonstration that the state or territory 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 those two jurisdictions.

Native American Indian Tribes must meet the same requirements as a state in order to receive primacy. The three PWS's operated by Native American Indian Tribes in Iowa have not received primacy, and are monitored directly by EPA. These three PWS's are the Winn-A-Vegas Casino in Sloan, IA. located in Woodbury County, CasinOmaha in Onawa, IA. located in Monona County and the Sac & Fox Community in Tama, IA. located in Tama County.

EPA regional offices report to the states any enforcement actions taken by EPA within their jurisdiction. All SDWA data for a state is stored in an automated database called the Safe Drinking Water Information System (SDWIS). This database currently contains an inventory of PWS's, violation records and individual analytical results.

# Iowa's Public Water Supply Systems

In order to understand this report, definitions of the various types of public water supplies are needed.

A **public water supply system** is a system which provides piped water to the public for human consumption. The system must have at least 15 service connections or regularly serve an average of at least 25 individuals daily at least 60 days out of the year. A farmstead is an example of a **private water supply system** which does not meet the definition of a public water supply system.

There were 1,995 PWS's in Iowa in 2000, that were active for some or all of the reporting year and which served a consumer population of 2,628,492 persons.

A PWS is either a community water system or a noncommunity water system.

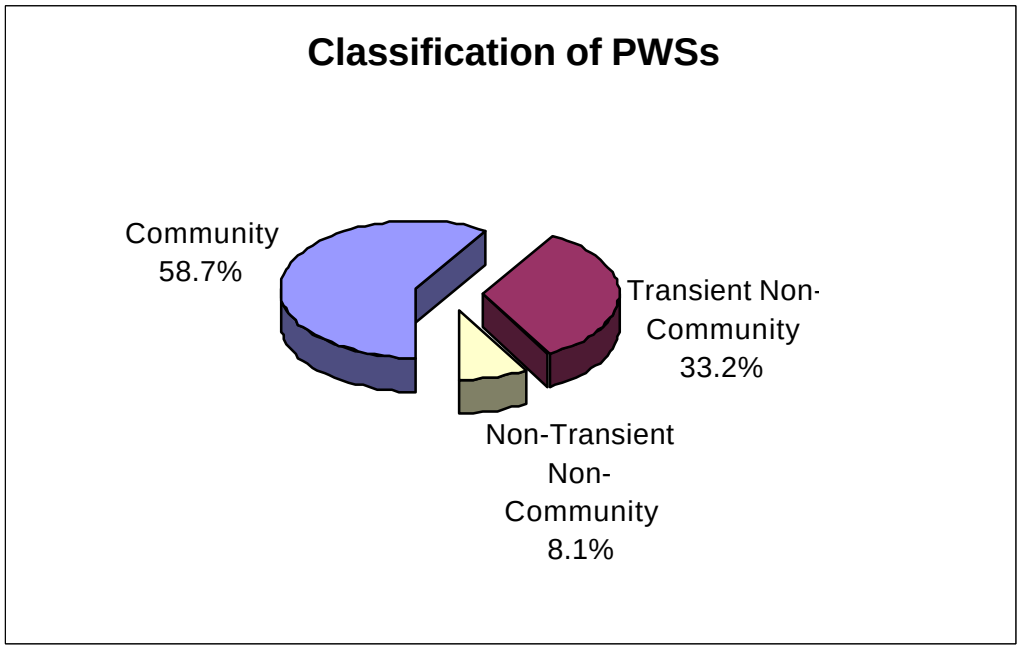
- A **community water system** (CWS) is a PWS which has at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Examples of CWSs include municipalities, subdivisions, and mobile home parks. There were 1,172 active CWSs in Iowa in 2000.
- A **noncommunity water system** is a PWS that is not a community water system, and there are two types of regulated noncommunity water systems.
    - A **nontransient noncommunity water system** (NTNC) is a public water system which regularly serves at least 25 of the same persons four hours or more per day, for four or more days per week, for 26 or more weeks per year. Examples of NTNC's are schools, day-care centers, factories, and offices. Other service-oriented businesses, such as hotels, resorts, hospitals, and restaurants, are classified as NTNC's if they employ 25 or more people and are open for 26 or more weeks of the year. There were 161 active NTNC's in Iowa in 2000.
    - A **transient noncommunity water system** (TNC) is a PWS other than a CWS or NTNC which regularly serves at least 25 individuals daily at least 60 days out of the year. Examples of TNC's are convenience stores, bars, and restaurants with fewer than 25 employees, golf courses, camps, parks, and recreation areas. There were 662 active TNC's in Iowa in 2000.

## Iowa's Public Water Supplies

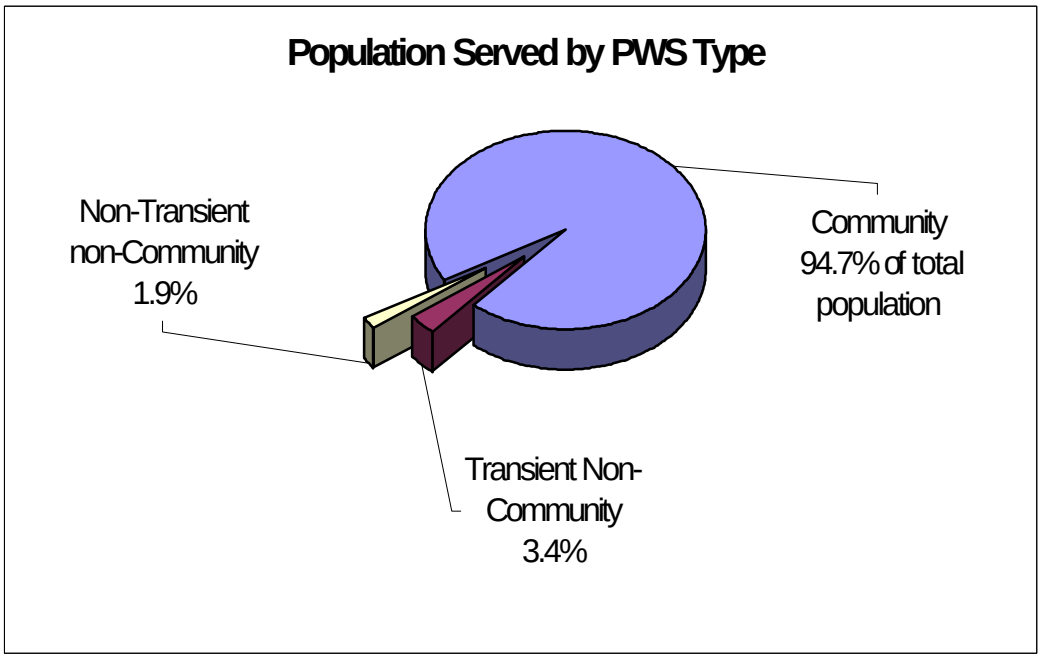
**Type:** Of Iowa's 1,995 active public water supplies in 2000,

- 58.7% are community public water supplies (municipality, subdivision, mobile home park), serving 94.7% of the total regulated consumer public.
- 8.1% are non-transient noncommunity public water supplies (industry, school, daycare), serving 1.9% of the total regulated consumer public.
- 33.2% are transient noncommunity public water supplies (park, restaurant, golf course), serving 3.4% of the total regulated consumer public.

This chart illustrates the three types of PWS's in Iowa.




This chart depicts the percentage of population served by the different PWS types.

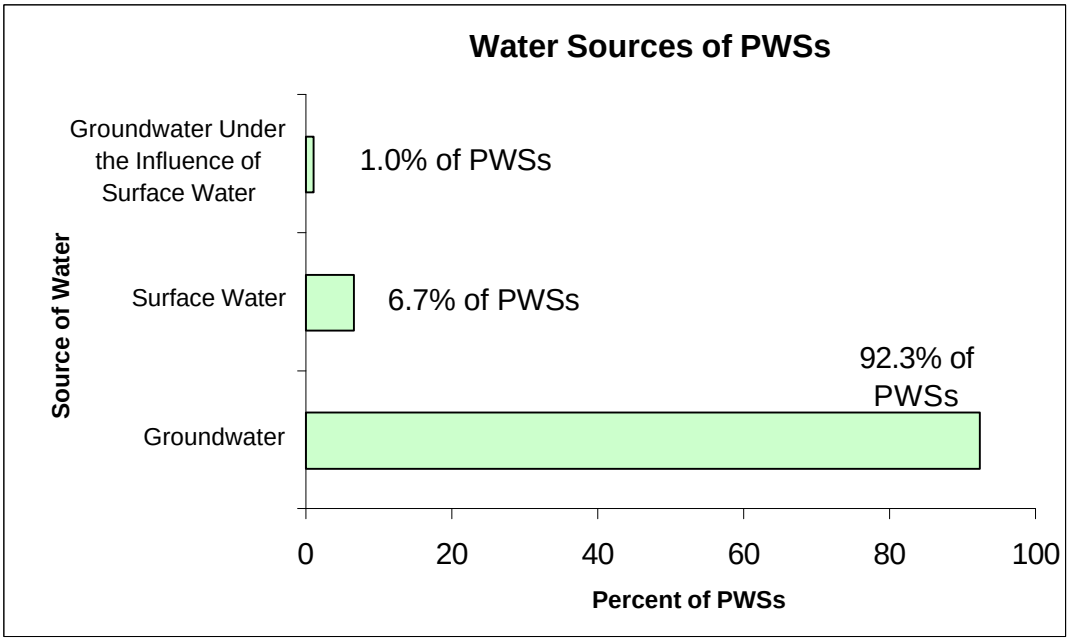


## Sources of Water:

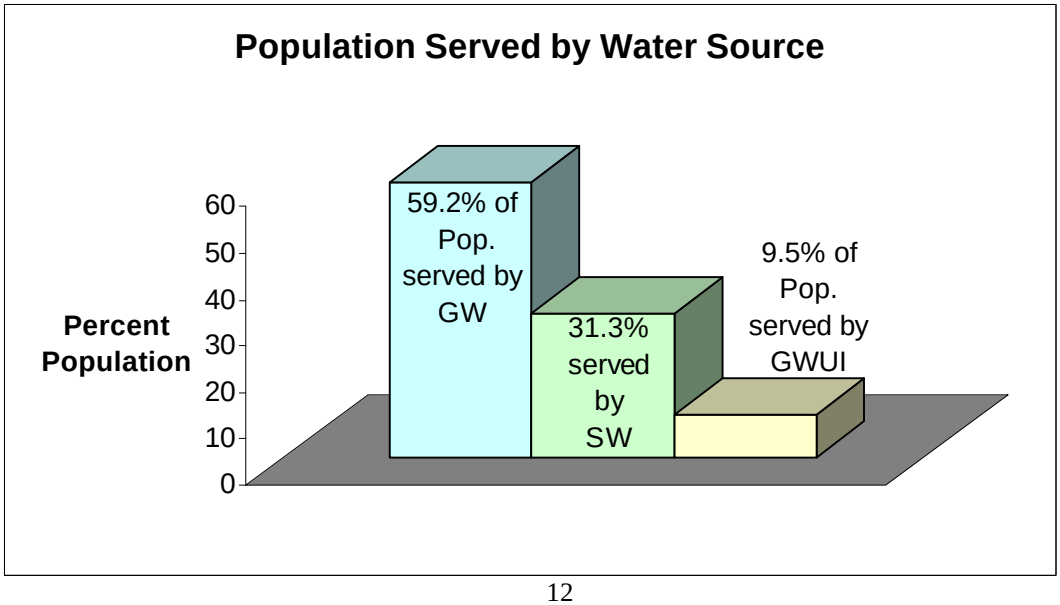
There are three drinking water source types in Iowa: surface water (rivers and reservoirs), groundwater, and groundwater under the direct influence of surface water (also called influenced groundwater). Since a PWS can use any combination of water sources in its system, the PWS is classified by its source most vulnerable to contamination.

- 92.3% of the PWSs have groundwater sources, which serve 59.2% of the state's population
- 6.7% of the PWSs have surface water sources, which serve 31.3% of the state's population
- 1.0% of the PWSs have groundwater sources under the direct influence of surface water, which serve 9.5% of the state's population

This chart depicts the water source classifications of Iowa PWS's.

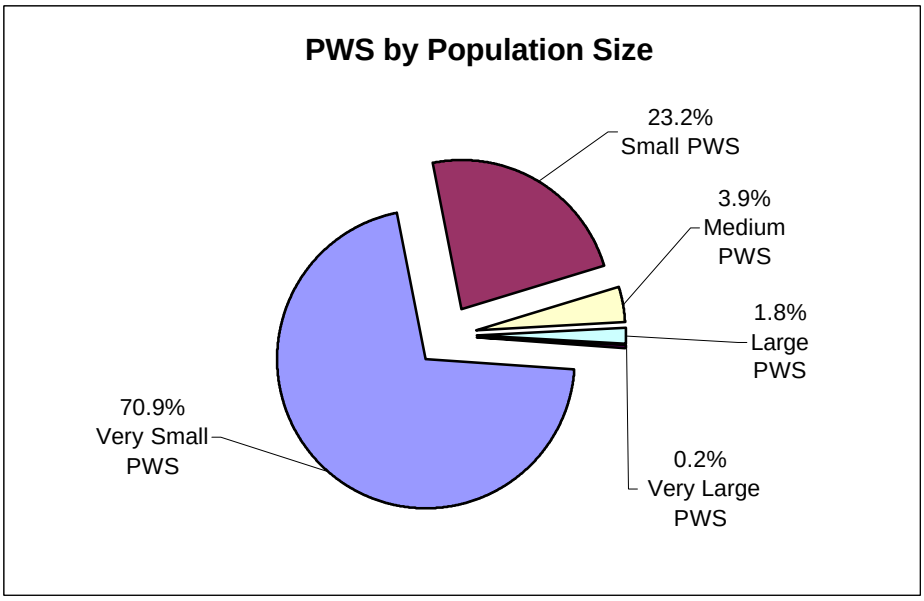



This chart depicts the percentage of Iowa's population which is served by the three types of public water supply sources.

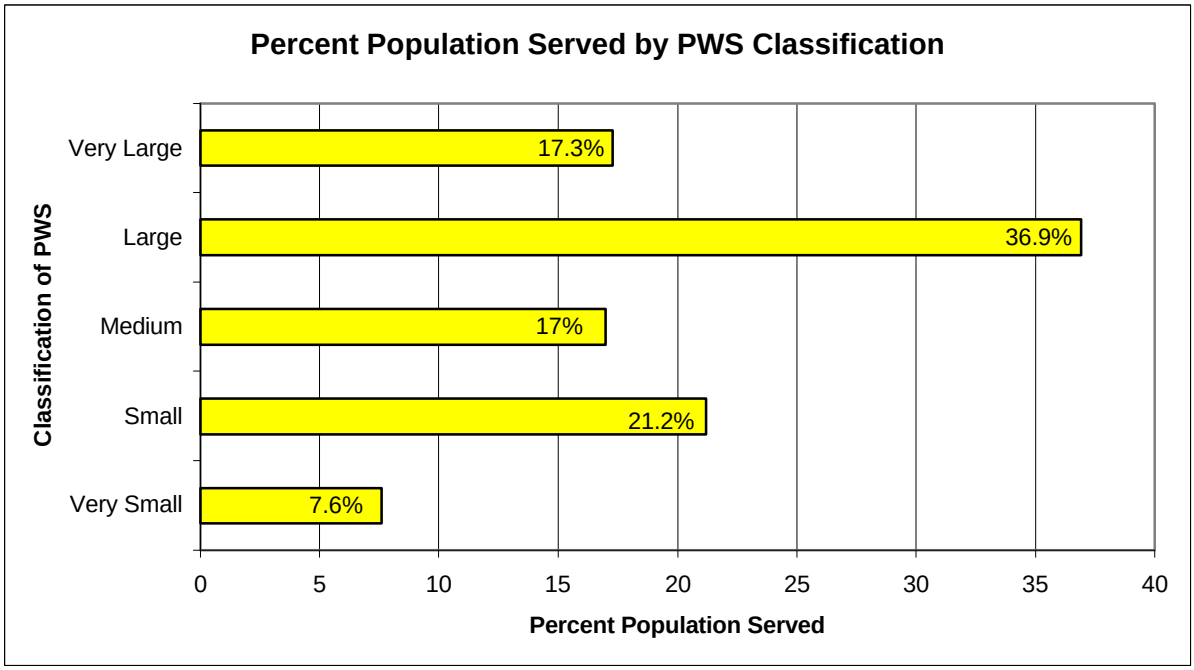


Water systems are also classified according to the number of people they serve:

| Description | Population Served | Number of PWS | % of Total PWS |
|---|---|---|---|
| Very Small Water System | 25 - 500 | 1,450 | 70.9 |
| Small Water System | 501 - 3,300 | 462 | 23.2 |
| Medium Water System | 3,301 - 10,000 | 79 | 3.9 |
| Large Water System | 10,001 - 100,000 | 36 | 1.8 |
| Very Large Water System | > 100,000 | 3 | 0.2 |




This chart shows that the largest population is served by the few large PWSs, but the second largest population is served by Small PWSs.



*The definitions of terms and enforcement actions listed in the following sections are from the Iowa Administrative Code (IAC).*

# Maximum Contaminant Levels (MCL's)

## Coliform Bacteria, including fecal coliforms and *E. coli*---567 IAC 41.2(1)

Non-Acute MCL: The MCL is determined by the presence or absence of total coliforms in a sample. Any coliform-positive routine or repeat sample that also is negative for fecal coliforms or *E. coli* constitutes a non-acute MCL based on the following criteria:

- If a routine sample is total coliform-positive, the PWS must collect a set of repeat samples within 24 hours of being notified of the positive result. This will verify the initial result and provide statistical background for the determination of an MCL.
- For a PWS which collects 40 samples or more per month, no more than 5.0 percent of the samples collected during a month may be total coliform-positive.
- For a PWS which collects less than 40 samples per month, no more than one sample collected during a month may be total coliform-positive.

Acute MCL: When total coliforms are present in any sample, that sample is also analyzed for fecal coliform and *E. coli*. Any fecal coliform-positive repeat sample or *E. coli*-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or *E. coli*-positive routine sample is a violation of the MCL for total coliforms.

| Contaminant | Number of PWS with Non-Acute MCL Violations in 2000 | Number of PWS with Acute MCL Violations in 2000 |
|---|---|---|
| Coliform Bacteria | 112 | 19 |

Source of Contamination: Total coliforms are common in the environment and are generally not harmful themselves. Fecal coliforms and *E. coli* are generally not harmful but their presence in drinking water is serious because they usually are associated with sewage or animal waste. The presence of these bacteria in drinking water generally is a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease (pathogens).

Health Effects: If the coliform MCL standard is violated, it indicates a pathway is present for microorganisms that are potentially pathogenic to enter the water system. At greatest risk are children, pregnant women, infants, elderly persons, and persons with compromised immune systems. Disease symptoms may include diarrhea, cramps, nausea, headaches, and fatigue. Chlorination of the drinking water will provide disinfection. Boiling water in the home is also an effective method of sterilizing the drinking water. Drinking water that meets the standard is associated with little risk to health and is considered safe with respect to these contaminants.

Out of Compliance: A PWS is out of compliance when the MCL is exceeded in any one compliance period assigned either as a monthly or quarterly (by calendar) requirement.

Returned to Compliance: A PWS is returned to compliance when repeat samples and any follow-up sampling yield results which are free of coliform bacteria. A PWS must have six months of levels below the MCL and no monitoring violations in order to be returned to compliance.

## Nitrate/Nitrite---567 IAC 41.3 (455B)

Acute MCL: The MCL is the maximum allowable concentration of the Nitrate or Nitrite level in a sample, and is measured in milligrams per liter (mg/L). The MCL standards for Nitrate and Nitrite are as follows:

| Contaminant | MCL, mg/L | Number of PWS with MCL Violations in 2000 |
|---|---|---|
| Nitrate | 10 (as nitrogen) | 33 |
| Nitrite | 1 (as nitrogen) | 1 |

Source of Contamination: These inorganic chemicals may result from the natural decay of organic materials such as leaves and crop residue, use of commercial fertilizers, and in human sewage and wastes from farm animals.

Health Effects: Excessive levels of nitrate and nitrite in drinking water have caused serious illness and sometimes death in infants under six months of age. Nitrate converts to nitrite, which interferes with the oxygen-carrying capacity in the child's blood (methemoglobinemia). This is an acute disease because symptoms can develop rapidly in infants. In most cases, health deteriorates over a period of days. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. Boiling the water will only concentrate nitrates in drinking water, and should not be attempted. Alternative sources of water should be used, such as Food and Drug Administration (FDA) approved bottled drinking water with low levels of nitrate clearly listed on the packaging. Drinking water that meets the standard is associated with little risk to health and is considered safe with respect to these contaminants.

Out of Compliance: A PWS is out of compliance when the MCL is exceeded in any one compliance period, assigned either as a monthly, quarterly, or yearly (by calendar) requirement. A violation of the nitrate or nitrite MCL is considered an acute violation with respect to public notification.

Returned to Compliance: A PWS is returned to compliance when the average of a confirmation sample result and the original sample are less than the MCL, or the results of successive monthly testing are below the MCL. A PWS must have six months of results that are at or below the MCL and no monitoring violations in order to be returned to compliance.

## Inorganic Chemicals---567 IAC 41.3 (455B)

Non-Acute MCL: Compliance with the MCL is generally determined using a running 12-month average of results compared to the maximum allowable concentration of the inorganic contaminant in a sample. Each result is measured in milligrams per liter (mg/L). The MCL's for the Inorganic Chemicals are listed in the following table.

| Contaminant | MCL, mg/L | Number of PWS with MCL Violations in 2000 |
|---|---|---|
| Antimony | 0.006 | -0- |
| Arsenic * | 0.05 | -0- |
| Barium | 2 | -0- |
| *Beryllium* ** | 0.004 | -0- |
| Cadmium | 0.005 | -0- |
| Chromium | 0.1 | -0- |
| *Cyanide (as free cyanide)* ** | 0.2 | -0- |
| **Fluoride** | **4.0** | **2** |
| Mercury | 0.002 | -0- |
| Selenium | 0.05 | -0- |
| Sodium | no MCL established | -0- |
| Thallium | 0.002 | -0- |

* Because EPA has just recently changed the arsenic MCL, the IDNR currently requires a PWS with an arsenic MCL violation to conduct quarterly public notification and sample collection. Non-acute levels are found in Iowa at the MCL applicable for the reporting year of 2000.

** These compounds were included in the statewide interim monitoring waiver program, and were not required in 2000.

Source of Contamination: Inorganic contaminants generally leach into drinking water after dissolving from naturally occurring minerals in the ground, or from leaching and runoff from industry and landfills.

Health Effects: If the MCL is exceeded for any of the inorganic contaminants, it means that a long-term risk to health is possible. These chemicals may damage organs such as the kidneys and liver, damage the nervous system causing loss of feeling and control in the legs, and are sometimes associated with high blood pressure and cancer. High levels of fluoride may cause dental mottling (fluorosis) of the teeth.

Out of Compliance: Generally, a PWS is out of compliance when the running 12-month average exceeds the MCL.

Returned to Compliance: A PWS is returned to compliance when the running 12-month average is below the MCL. A PWS must have 6 months of levels at or below the MCL and no monitoring violations in order to be returned to compliance.

## Organic Chemicals---567 IAC 41.5 (455B)

VOC/SOC - Non-Acute MCL: Compliance with the MCL is generally determined using the average annual concentration of four quarterly results, is compared to the maximum allowable concentration of the organic contaminant in a sample, and is measured in milligrams per liter (mg/L). The MCL's for the Regulated Organic Chemicals are listed in the following tables.

Regulated Volatile Organic Chemicals (VOC's)

| Contaminant | MCL, mg/L | Number of PWS with MCL Exceedances in 2000 |
|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | -0- |
| 1,1,2-Trichloroethane | 0.005 | -0- |
| 1,1-Dichloroethylene | 0.007 | -0- |
| 1,2,4-Trichlorobenzene | 0.07 | -0- |
| 1,2-Dichlorobenzene (ortho) | 0.6 | -0- |
| 1,2-Dichloroethane | 0.005 | -0- |
| 1,2-Dichloropropane | 0.005 | -0- |
| 1,4-Dichlorobenzene (para) | 0.075 | -0- |
| Benzene | 0.005 | -0- |
| Carbon tetrachloride | 0.005 | -0- |
| Chlorobenzene (mono) | 0.1 | -0- |
| cis-1,2-Dichloroethylene | 0.07 | -0- |
| Dichloromethane | 0.005 | -0- |
| Ethylbenzene | 0.7 | -0- |
| Styrene | 0.1 | -0- |
| Tetrachloroethylene | 0.005 | -0- |
| Toluene | 1 | -0- |
| trans-1,2-Dichloroethylene | 0.1 | -0- |
| Trichloroethylene | 0.005 | -0- |
| Vinyl chloride | 0.002 | -0- |
| Xylenes (total) | 10 | -0- |

Regulated Synthetic Organic Chemicals (SOC's)

| Contaminant | MCL, mg/L | Number of PWS with MCL Exceedances in 2000 |
|---|---|---|
| Aldicarb* | 0.003 | -0- |
| Aldicarb sulfone* | 0.002 | -0- |
| Aldicarb sulfoxide* | 0.004 | -0- |
| Aldrin* | 0.002 | -0- |
| 1,2-Dibromo-3-chloropropane* (DBCP) | 0.0002 | -0- |
| 2,3,7,8-TCDD (Dioxin)* | 0.00000003 | -0- |
| 2,4,5-TP (Silvex) | 0.05 | -0- |
| 2,4-D (as acids, salts, or esters) | 0.07 | -0- |
| Alachlor (Lasso) | 0.002 | -0- |
| Atrazine (Atrex) | 0.003 | -0- |
| Benzo(a)pyrene | 0.0002 | -0- |
| Carbofuran (Furadan) * | 0.04 | -0- |
| Chlordane* | 0.002 | -0- |
| Dalapon | 0.2 | -0- |
| Di(2-ethylhexyl)adipate | 0.4 | -0- |
| **Di(2-ethylhexyl)phthalate** | **0.006** | **1** |
| Dinoseb | 0.007 | -0- |
| Diquat* | 0.02 | -0- |
| Endothall* | 0.1 | -0- |
| Endrin* | 0.002 | -0- |
| Ethylene dibromide* (EDB) | 0.00005 | -0- |
| Glyphosate (Roundup)* | 0.7 | -0- |
| Heptachlor epoxide* | 0.0002 | -0- |
| Heptachlor* | 0.0004 | -0- |
| Hexachlorobenzene* | 0.001 | -0- |
| Hexachlorocyclopentadiene* | 0.05 | -0- |
| Lindane* | 0.0002 | -0- |
| Methoxychlor* | 0.04 | -0- |
| Oxamyl (Vydate)* | 0.2 | -0- |
| Pentachlorophenol | 0.001 | -0- |
| Picloram (Tordon) | 0.5 | -0- |
| Polychlorinated biphenyls (PCB's)* | 0.0005 | -0- |
| Simazine | 0.004 | -0- |
| Toxaphene* | 0.003 | -0- |

* These compounds were included in the statewide interim monitoring waiver program, and were not required in 2000.

Total Trihalomethanes

| Contaminant | MCL, mg/L | Number of PWS with MCL Exceedances in 2000 |
|---|---|---|
| **Total Trihalomethanes (TTHM's)*** (defined as the sum of the concentrations of bromodichloromethane, bromoform, dibromochloromethane, and chloroform, as measured at the point of maximum residence time in the distribution system) | **0.10** | **2** |

* Only for systems serving populations > 10,000 and systems found to be vulnerable to TTHM exceedances.

Unregulated Volatile and Synthetic Organic Contaminants

Community water systems and nontransient noncommunity water systems monitor for the following unregulated contaminants at IDNR's discretion, and particularly if the PWS is found to be vulnerable to contamination of one of the following chemicals. Contaminants are normally classified as unregulated when there are no MCLs established by EPA.

The EPA Health Advisory (HA) for lifetime exposure is defined as the concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects over a lifetime of exposure, with a margin of safety. The lifetime HA is used for unregulated contaminants when an MCL is not available. Exceedances of the HA for a contaminant are calculated in the same manner as the MCL for a similar compound type.

Unregulated VOC and SOC Contaminants

| Contaminant | Health Advisory/MCL, mg/L | Number of PWS with HA/MCL Exceedances in 2000 |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.07 | -0- |
| 1,1,2,2-Tetrachloroethane | ** | ** |
| 1,1-Dichloroethane | ** | ** |
| 1,1-Dichloropropene | ** | ** |
| 1,2,3-Trichloropropane | 0.4 | -0- |
| 1,3-Dichlorobenzene (meta) | 0.6 | -0- |
| 1,3-Dichloropropane | ** | ** |
| 1,3-Dichloropropene | 0.02 | -0- |
| 2,2-Dichloropropane | ** | ** |
| 3-Hydroxycarbofuran* | ** | ** |
| Acrylamide | 0.05% dosed at 1 ppm | -0- |
| Bromobenzene | ** | ** |
| Bromodichloromethane | 0.1 | -0- |
| Bromoform | 0.1 | -0- |
| Bromomethane | 0.01 | -0- |
| Butachlor* | ** | ** |
| Carbaryl* | 0.7 | -0- |

Unregulated VOC and SOC Contaminants, continued

| Contaminant | Health Advisory/MCL, mg/L | Number of PWS with HA/MCL Exceedances in 2000 |
|---|---|---|
| Chlorodibromomethane | 0.1 | -0- |
| Chloroethane | ** | ** |
| Chloroform | 0.1 | -0- |
| Chloromethane | 0.003 | -0- |
| Dibromomethane | ** | ** |
| Dicamba | 0.2 | -0- |
| Dieldrin* | 0.002 | -0- |
| Epichlorohydrin | 0.01% dosed at 20 ppm | -0- |
| Methomyl* | 0.2 | -0- |
| Metolachlor (Dual) | 0.1 | -0- |
| Metribuzin | 0.2 | -0- |
| o-Chlorotoluene | 0.1 | -0- |
| p-Chlorotoluene | 0.1 | -0- |
| Propachlor | 0.9 | -0- |

` * These compounds were included in the statewide interim monitoring waiver program, and were not required in 2000.

** No HA has been established

Discretionary Volatile Organic Series

Monitoring for the following compounds is only required at the discretion of the IDNR:

Discretionary VOC Contaminants

| Contaminant | Health Advisory, mg/L | Number of PWS with HA Exceedances in 2000 |
|---|---|---|
| 1,2,3-Trichlorobenzene | * | * |
| 1,2,4-Trimethylbenzene | * | * |
| 1,3,5-Trimethylbenzene | * | * |
| Bromochloromethane | 0.01 | -0- |
| Dichlorodifluoromethane | 1 | -0- |
| Fluorotrichloromethane | 2 | -0- |
| Hexachlorobutadiene | 0.001 | -0- |
| Isopropylbenzene | * | * |
| Naphthalene | 0.02 | -0- |
| n-Butylbenzene | * | * |
| n-Propylbenzene | * | * |
| p-Isopropyltoluene | * | * |
| sec-Butylbenzene | * | * |
| tert-Butylbenzene | * | * |

* no HA has been established

Sources of Contamination: Organic contaminants come from petroleum solvents, paint removers, degreasers, cleaning fluids, pesticides, gasoline, electrical transformers, manufacturing processes, chemical production, and the production of plastics. Agricultural runoff, improper waste disposal, and improper handling and storage techniques contribute to drinking water contamination via percolation of the contaminant through the soil into the groundwater.

Health Effects: If the MCL is exceeded for any of the organic contaminants, the exceedance represents a possible long-term risk to health. Cancer, as well as damage to the heart and liver, the nervous system, or the immune system may occur through long term exposure to these organic contaminants. Drinking water that meets the standard is associated with little risk to health and is considered safe with respect to these contaminants.

Health Advisory Exceedances: For contaminants with an established health advisory level, the PWS is required to conduct public notification each quarter in which the exceedance is in effect.

Out of Compliance: Generally, a PWS is out of compliance when the running 12-month average exceeds the MCL.

Returned to Compliance: A PWS is returned to compliance when the running 12-month average is below the MCL. A PWS must have 6 months of levels at or below the MCL and no monitoring violations in order to be returned to compliance. The EPA promulgated new rules that change the TTHM MCL; the IDNR currently requires a PWS with a TTHM MCL violation to conduct quarterly public notification and sampling.

## Radionuclides---567 IAC 41.8 (455B)

Non-Acute MCL: Compliance with the MCL is determined using the average annual concentration of at least four quarterly results, is compared to the maximum allowable concentration of the contaminant in a sample, and is measured in either picocuries per liter (pCi/L) or as a dose in millirems per year (mrem/yr). A composite sample is generally used in lieu of having four separate quarterly samples analyzed individually. The composite sample consists of four samples, each of which is collected in a specific quarter during a 12 month period, which is combined into one sample, and then analyzed for radionuclide content. If the results of that composite sample exceed the MCL, it is a non-acute MCL violation.

Because EPA promulgated new rules that change the radionuclide MCL's, the IDNR currently requires a PWS with a radionuclide MCL violation to conduct quarterly public notification and collect a four-quarter composite sample every four years. Because of this sampling schedule, there are PWS's which had unresolved MCL violations in 2000 which initially occurred prior to 2000. The new radionuclide MCL violations in 2000, as well as the continuing unresolved MCL violations in 2000, are shown in the following table. Non -acute levels are found in Iowa.

Radionuclides

| Contaminant | MCL | Number of PWS with new MCL Violations in 2000 | Number of PWS with continuing unresolved MCL Violations in 2000 |
|---|---|---|---|
| Gross Alpha Particle Activity (excluding Radon and Uranium) | 15 pCi/L | 1 | 4 |
| Gross Alpha and Combined 226/228 | | -0- | 3 |
| Combined Radium-226 and Radium 228 | 5 pCi/L | 6 | 28 |
| Gross Beta Particle and Photon Activity | 4 mrem/yr | -0- | -0- |

* The PWS's which exceeded the gross alpha MCL also exceeded the combined radium MCL.

Source of Contamination: Radionuclides (alpha emitters) occur naturally in certain groundwaters in the state, particularly in the deeper aquifers. Beta emitters are usually the result of manmade sources or activities.

Health Effects: If the MCL is exceeded for any of the radionuclide contaminants, it represents a possible long-term risk to health from cancer. Drinking water that meets the standard is associated with little risk to health and is considered safe with respect to these contaminants.

Out of Compliance: A PWS is out of compliance when the annual average exceeds the MCL, assigned either as a once-per-4-year grab sample (single) or as a composite sample requirement.

Returned to Compliance: A PWS is returned to compliance when the previous 12 month average is below the MCL.

# Treatment Technique (TT) Requirements

EPA established treatment techniques in lieu of MCL's to control unacceptable levels of some contaminants. If a PWS exceeds the turbidity limit, does not meet the residual disinfectant requirements, or does not meet the contact time (CT) ratio, that PWS incurs a treatment technique violation.

## Turbidity---567 IAC 43.5 (455B)

Treatment Technique: The treatment technique requirements for turbidity are applicable to community and noncommunity PWS's using surface water or groundwater under the direct influence of surface water in whole or in part. For PWS's using conventional or direct filtration, the turbidity level of representative samples of a PWS's filtered water must be less than or equal to 0.5 nephelometric turbidity units (NTU) in at least 95% of the measurements taken each month, with no single sample result exceeding 5 NTU's. Violation of the turbidity standard is a treatment technique violation.

Turbidity

| Contaminant | TT Criteria * | Number of PWS with TT Violations in 2000 |
|---|---|---|
| Turbidity | 5% of samples > 0.5 NTU | 1 |
| | any sample > 5.0 NTU | -0- |

* > means "greater than"

Sources of Contamination: Turbidity, or cloudiness, of drinking water is a measure of the minute particles suspended in the water that can interfere with disinfection and testing for bacteria. It can also prevent maintenance of an effective disinfectant residual throughout the distribution system.

Health Effects: Excessive turbidity can allow disease-causing organisms such as viruses and protozoans (*Giardia lamblia* and *Cryptosporidium)* to enter the distribution system by masking their presence.

Out of Compliance: A PWS is out of compliance when the treatment technique levels are exceeded in any one month.

Returned to Compliance: A PWS is returned to compliance when turbidity results are consistently below the MCL standards, and it may take several months to a year for a PWS to be returned to compliance.

## Residual Disinfectant---567 IAC 43.5 (455B)

All PWS's using a surface water source or a groundwater source under the direct influence of surface water must provide disinfection to provide inactivation or removal of 99.9% *Giardia lamblia* cysts and 99.99% viruses. The chlorine residual in drinking water is a measure of the amount of available chlorine in the water. It also allows the maintenance of an effective disinfectant agent throughout the PWS's distribution system.

1. The disinfectant entering the distribution system cannot be lower than 0.3 mg/L free residual chlorine for more than 4 hours.
2. The disinfectant within the distribution system, measured as total chlorine, combined chlorine, or chlorine dioxide, cannot be undetectable in more than 5% of the samples each month for any 2 consecutive months. This also applies to heterotrophic plate counts (HPC's), which could be done in lieu of disinfectant monitoring. The HPC must be less than or equal to 500 colony forming units per milliliter of sample in order to have acceptable disinfectant residual.

Residual Disinfectant

| Contaminant | TT Criteria* | Number of PWS with TT Violations in 2000 |
|---|---|---|
| Residual Disinfectant | ** | -0- |

Contact Time (CT) Ratio: All PWS's using a surface water source or a groundwater source under the direct influence of surface water must determine their contact time (CT) on a daily basis.

1. The CT in drinking water is determined by multiplying the disinfectant concentration by the amount of time that the disinfectant is in contact with the water. Each system must achieve a specific CT depending on water quality parameters, which include the pH and temperature of the water.
2. Insufficient CT can allow disease-causing organisms such as *Giardia lamblia* or viruses to survive and thereby be distributed throughout the system.

CT Ratio

| Contaminant | TT Criteria* | Number of PWS with TT Violations in 2000 |
|---|---|---|
| Contact Time | CT ratio of <1 | -0- |

Health Effects: Insufficient chlorine or disinfectant residual levels can allow disease-causing organisms to survive and thereby be distributed throughout the system.

Out of Compliance: A PWS is out of compliance with the treatment technique standard when the CT ratio or residual disinfectant requirement is insufficient. If a PWS continues to experience treatment technique violations, that PWS could be required to make modifications to the treatment process to achieve compliance.

Returned to Compliance: A PWS is returned to compliance with the treatment technique standard when the CT ratio is sufficient, and the residual disinfectant requirements have been met. The PWS could be returned to compliance in the next month, or the time period could be longer, depending upon the action needed to correct the violation.

## EPA Milestone: Lead/Copper Action Levels---567 IAC 41.4 (455B)

Action Level Exceedance: Lead and Copper are regulated differently than other contaminants because they have an action level (AL) rather than an MCL or TT. Compliance with the action level is based upon the number of samples collected. The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period is greater than 0.015 mg/L (i.e., if the "90th percentile" lead level is greater than 0.015 mg/L). The copper action level is exceeded if the concentration of copper in more than 10 percent of tap water samples collected during any monitoring period is greater than 1.3 mg/L (i.e., if the "90th percentile" copper level is greater than 1.3 mg/L). If the action level at the 90th percentile is exceeded for either lead or copper, it represents a long-term risk to health.

Lead and Copper

| Contaminant | Action Level, mg/L | Number of PWS with AL Exceedances in 2000 |
|---|---|---|
| Copper | 1.3 | 27 |
| Lead | 0.015 | 16 |
| Copper and Lead | (see above AL's) | 2 |

Source of Contamination: Lead is a common metal found in lead-based paint, household dust, and certain types of pottery, porcelain, and pewter. It can be found in drinking water due to leaching from lead pipes, from lead solder on indoor plumbing, or from brass faucets and fixtures. Copper is often used to plumb residential and commercial structures that are connected to water distribution systems, and leaching of copper from these sources can result in contamination of the drinking water.

Health Effects: Lead builds up in the body over many years and can cause damage to red blood cells and kidneys, as well as damage to the brain, which causes mental retardation. Copper, at high levels, can cause stomach and intestinal distress, liver and kidney damage, and anemia. Drinking water that meets the standard for both lead or copper is associated with little risk to health and is considered safe with respect to these contaminants.

Out of Compliance: A PWS is out of compliance when the action level is exceeded in any one compliance period, assigned either as a 6-month (by calendar), annual, or triennial requirement. Once the action level is exceeded for either lead or copper, the PWS must collect water quality parameters, develop a corrosion control treatment study, implement steps to control the corrosion in the water, and collect additional samples to demonstrate return to compliance with the action level standard. Public education is also required which advises the water customers of the problem and how they can protect themselves during a lead action level exceedance. The public education requirement remains in effect until the PWS has one full valid sampling round which is less than the lead action level.

Returned to Compliance: Generally, a PWS is returned to compliance when the sample results for two compliance periods are under the action levels for both lead and copper. This process can take several years to accomplish because of the lengthy corrosion control process, which is followed by a year of sampling before a PWS can return to compliance.

## Public Notification---567 IAC 42.1 (455B)

The SDWA requires a PWS to notify the state and the water consumers when the following violations occur:

- an MCL has been exceeded
- a maximum residual disinfectant level has been exceeded
- a required treatment technique has been violated
- a compliance schedule has not been met
- health advisory has been exceeded

To comply with the public notification requirements, the PWS must do three things:

- Notify the IDNR within 72 hours after the violation occurred;
- Notify the consumers by the required public notification procedures; and
- Provide proof of such public notice to the IDNR.

For violations of the MCLs of nitrate, nitrite, chlorine dioxide, and for total coliforms when fecal coliforms or *E .coli* are present, which may pose an acute risk to human health, the PWS must take the following additional step in addition to meeting the above listed requirements:

- furnish a copy of the public notice within 72 hours to the radio and television stations serving the affected public.

Health Effects: If a public notification requirement is not met, the public health is placed at risk because the public is unaware of the potential health effects of the water being consumed. Children, pregnant women, the elderly, and persons with compromised immune systems are at the greatest risk.

Out of Compliance: A PWS is in violation of the public notification rule when it does not issue public notification specific to its violation and does not provide proof of same to the IDNR.

Returned to Compliance: A PWS is returned to compliance when it publishes the appropriate public notification language within the required amount of time and provides proof of same to the IDNR.

## Lead Action Level Exceedance Public Education ---567 IAC 42.2 (455B)

The SDWA requires a PWS to notify the IDNR and the population served by the PWS when the action level for lead is exceeded.

1. Mandatory language must be provided to the consumers and general public every twelve months, in the following form:
   a. Newspaper announcement;
   b. Pamphlets and brochures to doctors, clinics, schools, daycare facilities, etc.;
   c. Attachments to customers' water bills;
   d. A message alerting the public must be printed directly on the water bill; and
   e. A public service announcement must be issued to television and radio for broadcasting.
2. At least every six months, a public service announcement must be issued to television and radio for broadcasting.

Health Effects: If a public education requirement is not met, the public health is placed at risk because the public is unaware of the potential health effects of the water being consumed. All children are at risk from long term exposure to lead.

Out of Compliance: A PWS is out of compliance with the public education requirement when it does not issue public education and/or does not provide proof of same to the IDNR.

Returned to Compliance: A PWS is returned to compliance with the public education requirement when it publishes the appropriate public education materials in the required format at the required cycle of time and provides proof of same to the IDNR.

# Variances and Exemptions

The IDNR, in accordance with the federal regulations, has the authority to issue variances or exceptions for certain exceedances of AL's, MCL's, or TT requirements. In Iowa, variances or exceptions are not allowed for exceedances of microorganism standards, acute concentrations of any contaminant, any violations of the Surface Water Treatment Rule, or lead exceedances. Basically, a variance or exception is a means to allow an extended schedule for a PWS to permanently correct the violation(s). In 1996, EPA requirements that the IDNR and PWS had to meet prior to granting a variance or exception made it impractical to utilize these provisions. Instead of issuing variance or exceptions, the IDNR used its authority to extend schedules for returning to compliance through the water supply operation permit program.

Iowa did not have rules on variances and exemptions for any contaminant during the reporting period of January 1, 2000 through December 31, 2000. Both historically and currently, Iowa does not issue variances and exemptions for violations of MCL's, TT's, AL's, or MRs.

# Major Monitoring & Reporting (MR) Requirements

The violation data in this section is only listed for those contaminants that had violations in the reporting year of 2000. Monitoring Violations for this report were based on the following guidelines:

| Rule | Violation Type | Description |
|---|---|---|
| Total Coliform Rule | MR, Major Routine | No samples collected during a compliance period |
| | MR, Major Repeat | No follow-up samples collected after a positive sample |
| Surface Water Treatment Rule | MR, major (filtered) | Collected less than 10% of samples required during a compliance period |
| | MR, major (unfiltered) | Collected less than 10% of samples required during a compliance period |
| Lead and Copper Rule | MR Initial Lead and Copper Tap | Failure to collect the initial tap samples followed by a failure to correct that omission within three months for large systems, 6 months for medium systems, and 12 months for small systems, or the failure to submit the associated report. |
| | MR Follow-up or Routine Lead and Copper Tap | Failure to collect 1 or more required samples. |
| Phase I, II, IIB, and V Rules | Regular Monitoring | Failed to collect any required samples |
| Total Trihalomethanes | Regular Monitoring | Failed to collect any required samples |
| Radionuclides | Regular Monitoring | Failed to collect any required samples |

## Coliform Bacteria ---567 IAC 41.2(1)

Monitoring & Reporting Requirement: All PWS's must collect total coliform samples at sites which are representative of water quality throughout their distribution systems according to a written sampling plan.

1. Community PWS's and noncommunity PWS's serving schools or daycare facilities must base the number of samples on the population served by the PWS. The minimum number of samples collected per month is determined by population groups as listed in 567 IAC 41.2(1)c(1)"3".
2. Regional PWS's, such as rural water districts, sample at a frequency based on miles of pipe in the distribution system, which is deemed equivalent to population.

3. Transient noncommunity PWS's, such as parks and rest areas, must monitor each calendar quarter at a minimum, or if the population served is over 1000 persons, monitor at the same frequency as a like-sized community PWS. EPA makes provisions for reducing the monitoring to annual, but in Iowa this is not considered sufficient protection for public health.
4. If a routine sample is total coliform positive, the PWS must collect repeat samples. That PWS must also collect a minimum of five routine samples during the next month the PWS is in operation.

| Contaminant | Number of Major MR Violations in 2000 | Number of Individual PWS's with Major MR Violations in 2000 |
|---|---|---|
| Coliform Bacteria, Repeat | 34 | 24 |
| Coliform Bacteria, Routine | 270 | 199 |

Out of Compliance: A PWS is out of compliance when the PWS fails to collect and have analyzed the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the samples are collected and the results are in the IDNR's database.

## Nitrate/Nitrite---567 IAC 41.3 (455B)

Monitoring & Reporting Requirement: All PWS's, including community, noncommunity, and transient noncommunity PWS's, must monitor to determine compliance with the MCL for nitrate and nitrite at the following frequency:

1. All PWS's must monitor for nitrate at least on an annual basis and for nitrite at least once.
2. If a PWS exceeds one-half the MCL for either nitrate or nitrite, it must monitor on a quarterly basis.
3. If a PWS exceeds the MCL for either nitrate or nitrite, it must monitor for that contaminant on a monthly basis.

| Contaminant | Number of MR Violations in 2000 | Number of Individual PWS's with MR Violations in 2000 |
|---|---|---|
| Nitrate | 228 | 192 |
| Nitrite | 26 | 25 |

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the samples are collected and the results are in the IDNR's database.

## Inorganic Chemicals---567 IAC 41.3 (455B)

Monitoring & Reporting Requirement: Community and nontransient noncommunity PWS's must monitor to determine compliance with the MCL for inorganic contaminants. The IDNR issues a sampling schedule through an operation permit which may vary from quarterly to once every nine years, with the frequency determined by past analytical results.

| Contaminant | Number of MR Violations in 2000 | Number of Individual PWS's with MR Violations in 2000 |
|---|---|---|
| Asbestos | 1 | 1 |
| Antimony | 5 | 5 |
| Arsenic | 5 | 5 |
| Barium | 5 | 5 |
| Cadmium | 5 | 5 |
| Chromium | 5 | 5 |
| Fluoride | 7 | 7 |
| Mercury | 5 | 5 |
| Selenium | 5 | 5 |
| Sodium | 7 | 7 |
| Thallium | 5 | 5 |
| Sulfate | 5 | 5 |

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the samples are collected and the results are in the IDNR's electronic database.

## Organic Chemicals---567 IAC 41.5 (455B)

Monitoring & Reporting Requirements: Community and nontransient noncommunity PWS's must monitor to determine compliance with the MCL for organic contaminants. The IDNR issues a sampling schedule through an operation permit which may vary from quarterly to once every five years, the schedule being based on past analytical results. Currently the IDNR issues one violation for each analyte missed.

VOC and SOC contaminants

| Contaminant | Number of MR Violations in 2000 | Number of Individual PWS's with MR Violations in 2000 | Category |
|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 1 | 1 | VOCs - Unregulated |
| 1,1,1-Trichloroethane | 22 | 22 | VOCs - Regulated |

VOC and SOC contaminants, continued

| Contaminant | Number of MR Violations in 2000 | Number of Individual PWS's with MR Violations in 2000 | Category |
|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 1 | 1 | VOCs - Unregulated |
| 1,1,2-Trichloroethane | 22 | 22 | VOCs - Regulated |
| 1,1-Dichloroethane | 1 | 1 | VOCs - Unregulated |
| 1,1-Dichloroethylene | 22 | 22 | VOCs - Regulated |
| 1,1-Dichloropropene | 1 | 1 | VOCs - Unregulated |
| 1,2,3-Trichloropropane | 1 | 1 | VOCs - Unregulated |
| 1,2,4-Trichlorobenzene | 22 | 22 | VOCs - Regulated |
| 1,2-Dichloroethane | 22 | 22 | VOCs - Regulated |
| 1,2-Dichloropropane | 22 | 22 | VOCs - Regulated |
| 1,3-Dichloropropane | 1 | 1 | VOCs - Unregulated |
| 1,3-Dichloropropene | 1 | 1 | VOCs - Unregulated |
| 2,2-Dichloropropane | 1 | 1 | VOCs - Unregulated |
| 2,4,5-TP (Silvex) | 21 | 21 | SOCs - Regulated |
| 2,4-D | 21 | 21 | SOCs - Regulated |
| Alachlor (Lasso) | 21 | 21 | SOCs - Regulated |
| Atrazine | 22 | 22 | SOCs - Regulated |
| Benzene | 23 | 23 | VOCs - Regulated |
| Benzo (a) Pyrene | 21 | 21 | SOCs - Regulated |
| Bromobenzene | 1 | 1 | VOCs - Unregulated |
| Bromodichloromethane | 1 | 1 | VOCs - Unregulated |
| Bromoform | 1 | 1 | VOCs - Unregulated |
| Bromomethane | 1 | 1 | VOCs - Unregulated |
| Butachlor (Machete) | 1 | 1 | SOCs - Unregulated |
| Carbon Tetrachloride | 23 | 23 | VOCs - Regulated |
| Chlorodibromomethane | 1 | 1 | VOCs - Unregulated |
| Chloroethane | 1 | 1 | VOCs - Unregulated |
| Chloroform | 1 | 1 | VOCs - Unregulated |
| Chloromethane | 1 | 1 | VOCs - Unregulated |
| cis-1,2-Dichloroethylene | 22 | 22 | VOCs - Regulated |
| Dalapon | 21 | 21 | SOCs - Regulated |
| Di(2-Ethylhexyl) - Adipate | 22 | 22 | SOCs - Regulated |
| Di(2-Ethylhexyl) - Phthalate | 22 | 22 | SOCs - Regulated |
| Dibromomethane | 1 | 1 | VOCs - Unregulated |
| Dicamba | 1 | 1 | SOCs - Unregulated |
| Dichloromethane | 22 | 22 | VOCs - Regulated |
| Dinoseb | 21 | 21 | SOCs - Regulated |

VOC and SOC contaminants, continued

| Contaminant | Number of MR Violations in 2000 | Number of Individual PWS's with MR Violations in 2000 | Category |
|---|---|---|---|
| Ethylbenzene | 24 | 24 | VOCs - Regulated |
| m-Dichlorobenzene | 1 | 1 | VOCs - Unregulated |
| Metolachlor | 1 | 1 | SOCs - Unregulated |
| Metribuzin (Sencor) | 1 | 1 | SOCs - Unregulated |
| Monochlorobenzene | 22 | 22 | VOCs - Regulated |
| o-Chlorotoluene | 1 | 1 | VOCs - Unregulated |
| o-Dichlorobenzene | 22 | 22 | VOCs - Regulated |
| p-Chlorotoluene | 1 | 1 | VOCs - Unregulated |
| p-Dichlorobenzene | 22 | 22 | VOCs - Regulated |
| Pentachlorophenol | 21 | 21 | SOCs - Regulated |
| Picloram | 21 | 21 | SOCs - Regulated |
| Propachlor | 1 | 1 | SOCs - Unregulated |
| Simazine | 21 | 21 | SOCs - Regulated |
| Styrene | 22 | 22 | VOCs - Regulated |
| Tetrachloroethylene | 22 | 22 | VOCs - Regulated |
| Toluene | 25 | 25 | VOCs - Regulated |
| trans-1,2-Dichloroethylene | 22 | 22 | VOCs - Regulated |
| Trichloroethylene | 22 | 22 | VOCs - Regulated |
| Vinyl Chloride | 22 | 22 | VOCs - Regulated |
| Xylenes | 26 | 26 | VOCs - Regulated |

Total Trihalomethanes

| Contaminant | Number of MR Violations in 2000 | Number of Individual PWS's with MR Violations in 2000 | Category |
|---|---|---|---|
| Total Trihalomethanes (TTHM's)* | 2 | 2 | Total THM |

* Only for systems serving populations > 10,000 and systems found to be vulnerable to TTHM exceedances.

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the sample is collected and the results are in the IDNR's electronic database.

## Radionuclides---567 IAC 41.8 (455B)

Monitoring & Reporting Requirement: Community PWS's must monitor to determine compliance with the MCL for radionuclides. The IDNR issues a sampling schedule which may vary from a quarterly sample to a composite sample once every four years, depending on past results.

| Contaminant | Number of MR Violations in 2000 | Number of Individual PWS's with MR Violations in 2000 |
|---|---|---|
| Gross Alpha | 7 | 7 |

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the sample is collected and the result is in the IDNR's database.

## Turbidity, Residual Disinfectant, and CT Ratio---567 IAC 43.5 (455B)

Monitoring & Reporting Requirements: All PWS's using surface water or groundwater under the direct influence of surface water in whole or in part are required to conduct turbidity monitoring and report the results to the IDNR on a monthly basis. The number of samples is based on the population served, and must be either collected every four hours or be continuously monitored. Residual disinfectant sampling requirements are applicable to community and noncommunity PWS's using surface water or groundwater under the direct influence of surface water in whole or in part. When a coliform bacterial sample is collected, that sample must be analyzed for residual disinfectant immediately. The residual disinfectant must also be measured at a minimum of every four hours at the entry point to the distribution system. Depending upon the size of the system, continuous monitoring may be required. The CT ratio must be calculated and recorded daily, and the lowest ratio in each month must be reported.

| Contaminant | Number of MR Violations in 2000 | Number of Individual PWS's with MR Violations in 2000 |
|---|---|---|
| Turbidity | -0- | -0- |

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the samples are collected and the results are reported to the IDNR.

## Lead/Copper---567 IAC 41.4 (455B)

Monitoring & Reporting Requirement: All community and nontransient noncommunity PWS's must monitor to determine compliance with the Action Level for lead and copper at sites according to a written sampling plan which targets sites that have specific home plumbing materials with lead and copper. The number of samples collected is based on the population served. Additionally, water quality parameters and source water sampling are collected when the action level for either lead or copper is exceeded. Follow-up monitoring is continued on a routine schedule regardless of analytical results.

| Contaminant | Number of MR Violations in 2000 | Number of Individual PWS's with MR Violations in 2000 |
|---|---|---|
| Lead & Copper | 29 | 27 |

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number or type of samples in any one compliance period, either six-month, annual, or triennial.

Returned to Compliance: A PWS is returned to compliance when the samples are collected, the results are in the IDNR's electronic database, and the 90th percentile report has been received by the IDNR.

## Public Notification---567 IAC 42.1 (455B)

Reporting Requirement: All PWS's must issue public notification for failure to:

- monitor and report the required data to the department
- comply with established testing procedure
- comply with an interim contaminant level
- failure to meet the public notification requirements

Out of Compliance: A PWS is out of compliance when the PWS fails to issue any required public notification.

Returned to Compliance: A PWS is returned to compliance when the PWS issues the required public notification and submits a copy of same to the IDNR.

## Lead Action Level Exceedance Public Education---567 IAC 42.2 (455B)

Reporting Requirement: All community and nontransient noncommunity PWS's must conduct a public education program if they exceed the lead action level. Note that Public Education is not the same as public notification. Public notification is a portion of public education but the reverse is not true. Public education includes several different methods of public notification, all of which are critical to the public education effort.

Out of Compliance: A PWS is out of compliance when the PWS fails to issue any required public education.

Returned to Compliance: A PWS is returned to compliance when the PWS initiates or resumes the required public education and submits a copy of same to the IDNR.

## Consumer Confidence Reports ---567 IAC 42.3 (455B)

Reporting Requirement: The SDWA requires a CWS to notify the public by July 1st of every year with information on the quality of the water delivered by the PWS and characterize the risks (if any) from exposure to contaminants in the drinking water in an accurate and understandable manner. All CWSs must distribute this Consumer Confidence Report (CCR) which must include

- source water information
- definitions of terms
- information on detected contaminants (if any),
- whether the PWS is in compliance with any other regulations of monitoring, public notification, operation or administrative order.
- Mandatory language and additional health information is required where applicable.
- Each CWS must mail or otherwise deliver one copy of the report to each customer unless it receives a waiver from the IDNR for having fewer than 10,000 persons and having no detected contaminants, or if the CWS serves fewer than 500 in population.

Out of Compliance: A PWS is out of compliance when the PWS fails to issue any required public notification.

Returned to Compliance: A PWS is returned to compliance when the PWS issues the required public notification and submits a copy of same to the IDNR.

| Violation | Number of MR Violations in 2000 | Number of Individual PWSs with MR Violations in 2000 |
|---|---|---|
| CCR | 12 | 12 |

# Distribution of this Report

The SDWA requires both summary and detailed reports from the states to be accessible to the EPA, the Governor of the State, and the public. The State of Iowa has determined that the following options will be utilized to make this report readily available to the public. The IDNR will:

- Supply the detailed report to the EPA Headquarters in Washington, DC, by the statutory deadline.
- Supply the detailed report to the EPA Regional Headquarters in Kansas City, KS.
- Supply the detailed report to the Office of the Governor of Iowa.
- Publish an official notice of report availability.
- Include notices of availability on the IDNR internet website.
- Make the detailed report available for downloading from the IDNR internet website.
- Supply the detailed report to the public water systems identified in the detailed report.
- Make the detailed and summary report available for individuals and organizations upon request.

# Summary Report

The Violations Summary Report, listed in Table A, is strictly a numerical summary of all the violations of each contaminant being monitored for SDWA compliance. Discretionary and unregulated organic compounds are not listed in this table, since they do not have MCL's. This report lists the number of violations of each contaminant categorized by both MCL and Monitoring & Reporting Violations.

## Report Legend for TABLE A

| Column (from left to right) | Description of Heading |
|---|---|
| 1 | The first column identifies the contaminant name |
| 2 | The second column identifies the MCL for that contaminant |
| 3 | The third column identifies the number of MCL violations for that contaminant |
| 4 | The fourth column identifies the number of PWS's with MCL violations for that contaminant |
| 5 | The fifth column identifies the number of TT violations |
| 6 | The sixth column identifies the number of PWS's with TT violations |
| 7 | The seventh column identifies the number of MR violations for that contaminant |
| 8 | The eighth column identifies the number of PWS's with MR violations for that contaminant |

## TABLE A: VIOLATIONS SUMMARY REPORT

*NOTE: This is an EPA formatted table.*

| State: | Iowa |
|---|---|

| Reporting Interval: | January 1, 2000 through December 31, 2000 |
|---|---|

| Organic Contaminants | MCL (mg/L) | MCL's | | Treatment Techniques | | Significant Monitoring/Reporting | |
|---|---|---|---|---|---|---|---|
| | | Number of Violations | Number of Systems with Violations | Number of Violations | Number of Systems with Violations | Number of Violations | Number of Systems with Violations |
| 1,1,1-Trichloroethane | 0.2 | -0- | -0- | | | 22 | 22 |
| 1,1,2-Trichloroethane | 0.005 | -0- | -0- | | | 22 | 22 |
| 1,1-Dichloroethylene | 0.007 | -0- | -0- | | | 22 | 22 |
| 1,2,4-Trichlorobenzene | 0.07 | -0- | -0- | | | 22 | 22 |
| 1,2-Dibromo-3-chloropropane (DBCP) | 0.0002 | -0- | -0- | | | -0- | -0- |
| 1,2-Dichloroethane | 0.005 | -0- | -0- | | | 22 | 22 |
| 1,2-Dichloropropane | 0.005 | -0- | -0- | | | 22 | 22 |
| 2,3,7,8-TCDD (Dioxin) | 0.00000008 | -0- | -0- | | | -0- | -0- |
| 2,4,5-TP | 0.05 | -0- | -0- | | | 21 | 21 |
| 2,4-D | 0.07 | -0- | -0- | | | 21 | 21 |
| Acrylamide | | NA | NA | | | -0- | -0- |
| Alachlor | 0.002 | -0- | -0- | | | 21 | 21 |
| Atrazine | 0.003 | -0- | -0- | | | 22 | 22 |
| Benzene | 0.005 | -0- | -0- | | | 23 | 23 |
| Benzo[a]pyrene | 0.0002 | -0- | -0- | | | 21 | 21 |
| Carbofuran | 0.04 | -0- | -0- | | | -0- | -0- |
| Carbon tetrachloride | 0.005 | -0- | -0- | | | 23 | 23 |
| | | | | | | | |

| Contaminant | MCL (mg/L) | MCL's | | 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 |
| **Chlordane** | **0.002** | -0- | -0- | | | -0- | -0- |
| **cis-1,2-Dichloroethylene** | **0.07** | -0- | -0- | | | 22 | 22 |
| **Dalapon** | **0.2** | -0- | -0- | | | 21 | 21 |
| **Di(2-ethylhexyl)adipate** | **0.4** | -0- | -0- | | | 22 | 22 |
| **Di(2-ethylhexyl)phthalate (Total Phthalates)** | **0.006** | 1 | 1 | | | 22 | 22 |
| **Dichloromethane** | **0.005** | -0- | -0- | | | 22 | 22 |
| **Dinoseb** | **0.007** | -0- | -0- | | | 21 | 21 |
| **Diquat** | **0.02** | -0- | -0- | | | -0- | -0- |
| **Endothall** | **0.1** | -0- | -0- | | | -0- | -0- |
| **Endrin** | **0.002** | -0- | -0- | | | -0- | -0- |
| **Epichlorohydrin** | | NA | NA | | | 0 | 0 |
| **Ethylbenzene** | **0.7** | -0- | -0- | | | 24 | 24 |
| **Ethylene dibromide** | **0.00005** | -0- | -0- | | | -0- | -0- |
| **Glyphosate** | **0.7** | -0- | -0- | | | -0- | -0- |
| **Heptachlor** | **0.0004** | -0- | -0- | | | -0- | -0- |
| **Heptachlor epoxide** | **0.0002** | -0- | -0- | | | -0- | -0- |
| **Hexachlorobenzene** | **0.001** | -0- | -0- | | | -0- | -0- |
| **Hexachlorocyclopentadiene** | **0.05** | -0- | -0- | | | -0- | -0- |
| **Lindane** | **0.0002** | -0- | -0- | | | -0- | -0- |
| **Methoxychlor** | **0.04** | -0- | -0- | | | -0- | -0- |

| Contaminant | MCL (mg/L) | MCL's | | 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 |
| **Monochlorobenzene** | **0.1** | -0- | -0- | | | 22 | 22 |
| **o-Dichlorobenzene** | **0.6** | -0- | -0- | | | 22 | 22 |
| **Oxamyl (Vydate)** | **0.2** | -0- | -0- | | | -0- | -0- |
| **para-Dichlorobenzene** | **0.075** | -0- | -0- | | | 22 | 22 |
| **Pentachlorophenol** | **0.001** | -0- | -0- | | | 21 | 21 |
| **Picloram** | **0.5** | -0- | -0- | | | 21 | 21 |
| **Simazine** | **0.004** | -0- | -0- | | | 21 | 21 |
| **Styrene** | **0.1** | -0- | -0- | | | 22 | 22 |
| **Tetrachloroethylene** | **0.005** | 0 | 0 | | | 22 | 22 |
| **Toluene** | **1** | -0- | -0- | | | 25 | 25 |
| **Total polychlorinated biphenyls** | **0.0005** | -0- | -0- | | | -0- | -0- |
| **Toxaphene** | **0.003** | -0- | -0- | | | -0- | -0- |
| **trans-1,2-Dichloroethylene** | **0.1** | -0- | -0- | | | 22 | 22 |
| **Trichloroethylene** | **0.005** | -0- | -0- | | | 22 | 22 |
| **Vinyl chloride** | **0.002** | -0- | -0- | | | 22 | 22 |
| **Xylenes (total)** | **10** | -0- | -0- | | | 26 | 26 |
| | | | | | | | |
| | | | | | | | |
| **Total trihalomethanes** | **0.10** | 4 | 2 | | | 2 | 2 |

| Contaminant | MCL (mg/L) | MCL's | | 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- | | | 5 | 5 |
| **Arsenic** | **0.05** | -0- | -0- | | | 5 | 5 |
| **Asbestos** | **7 million fibers/ 10 µm long** | -0- | -0- | | | 1 | 1 |
| **Barium** | **2** | -0- | -0- | | | 5 | 5 |
| **Beryllium** | **0.004** | -0- | -0- | | | -0- | -0- |
| **Cadmium** | **0.005** | 0 | 0 | | | 5 | 5 |
| **Chromium** | **0.1** | -0- | -0- | | | 5 | 5 |
| **Cyanide (as free cyanide) *** | **0.2** | -0- | -0- | | | -0- | -0- |
| **Fluoride** | **4.0** | 2 | 2 | | | 7 | 7 |
| **Mercury** | **0.002** | -0- | -0- | | | 5 | 5 |
| **Nitrate** | **10 (as Nitrogen)** | 77 | 33 | | | 228 | 192 |
| **Nitrite** | **1 (as Nitrogen)** | 2 | 1 | | | 26 | 25 |
| **Selenium** | **0.05** | -0- | -0- | | | 5 | 5 |
| **Thallium** | **0.002** | -0- | -0- | | | 5 | 5 |
| **Total nitrate and nitrite** | **10 (as Nitrogen)** | -0- | -0- | | | -0- | -0- |

* No monitoring was required in 2000 for this parameter.

| Contaminant | MCL | MCL's * | | 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 MCL's** | | | | | | | |
| **Gross alpha** | **15 pCi/L** | 1 | 1 | | | 7 | 7 |
| **Radium-226 and radium-228** | **5 pCi/L** | 6 | 6 | | | -0- | -0- |
| **Gross beta** | **4 mrem/year** | -0- | -0- | | | -0- | -0- |
| **Subtotal** | | 7 | 7 | | | 7 | 7 |
| | | | | | | | |

* These are the new violations incurred in 2000, and do not include the continuing unresolved violations from previous years.

| Contaminant | MCL (mg/L) | MCL | | 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** | 19 | 19 | | | | |
| **Non-acute MCL violation** | **Presence** | 165 | 112 | | | | |
| **Major routine and follow up monitoring** | | | | | | 304 | 223 |
| **Sanitary survey** | | | | | | **State initiates Sanitary survey** | **State initiates Sanitary survey** |
| **Subtotal** | | 184 | 131 | | | 304 | 223 |

| Contaminant | MCL (mg/L) | MCL's | | 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 | | | | | | -0- | -0- |
| Treatment techniques | | -0- | -0- | 1 | 1 | | |
| Unfiltered systems * | | | | | | | |
| Monitoring, routine/repeat | | | | | | | |
| Failure to filter | | | | | | | |
| Subtotal | | | | 1 | 1 | -0- | -0- |

* All surface water PWS's in Iowa have filtration.

| Contaminant | Action Level | Action Level Exceedance * | | 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 | Lead: 0.015 mg/L Copper: 1.3 mg/L | Lead: 16 Copper: 27 Both: 2 | Lead: 16 Copper: 27 Both: 2 | -0- | -0- | -0- | -0- |
| Initial lead and copper tap M/R | | | | | | -0- | -0- |
| Follow-up or routine lead and copper tap M/R | | | | | | 29 | 27 |
| Treatment installation | | | | | | -0- | -0- |
| Public education | | | | | | -0- | -0- |
| Subtotal | | Lead: 16 Copper: 27 Both: 2 | Lead: 16 Copper: 27 Both: 2 | -0- | -0- | 29 | 27 |

# Statistical Summary

## Maximum Contaminant Level Violations

Maximum contaminant level (MCL) violations are listed in Table A and itemized in Table B. For this reporting period there were a total of 277 MCL violations incurred by 177 PWSs.

MCL Violations and total number of violations:

| Number of Violations | Contaminant | % Violations (# Viols divided by Total # Viols) |
|---|---|---|
| 184 | Coliform, Total (TCR) | 66.4% |
| 1 | Di(2-Ethylhexyl) - Phthalate | 0.4% |
| 2 | Fluoride | 0.7% |
| 1 | Gross Alpha, excluding Rn & U | 0.4% |
| 77 | Nitrate (as N) | 27.8% |
| 2 | Nitrite (as N) | 0.7% |
| 6 | Radium, Combined (226, 228) | 2.2% |
| 4 | Total Trihalomethanes (TTHM) | 1.4% |
| | | |
| 277 | *(8 contaminants exceeded the MCL)* | 100.0% |

The number and types of the most current enforcement actions for each of the 277 MCL violations in 2000 are listed below:

| Type of Enforcement Actions | Number of Enforcement Actions |
|---|---|
| NOV issued | 41 |
| BCA issued | 54 |
| AO w/ Penalty | 4 |
| AO w/o Penalty | 25 |
| Compliance Achieved | 153 |
| | |
| Total | 277 |

MCL Violations and Total Number of Samples Collected for each Contaminant with an MCL violation:

| Contaminant | Number of MCL Violations | Total Number of Samples Collected | % of MCL Violations/Total Samples |
|---|---|---|---|
| Coliform, Total (TCR) | 184 | 29,574 | 0.62% |
| Di(2-Ethylhexyl) - Phthalate | 1 | 825 | 0.12% |
| Fluoride | 2 | 973 | 0.21% |
| Gross Alpha, excluding Rn & U | 1 | 6 | 16.67% |
| Nitrate (as N) | 77 | 3,776 | 2.04% |
| Nitrite (as N) | 2 | 528 | 0.38% |
| Radium, Combined (226, 228) | 6 | 99 | 6.06% |
| Total Trihalomethanes (TTHM) | 4 | 397 | 1.01% |
| | | | |
| Total | 277 | 36,178 | 0.77% |

*Explanation of this table:*

- Of the 29,574 total coliform samples collected, 184 exceeded the MCL for total coliform contamination. Therefore: 184 divided by 29,574 equals 0.62% of the total coliform samples collected resulted in an MCL violation.
- Likewise, of the <u>total</u> of the 36,178 samples collected for these selected analytes, only 277 exceeded the MCL for that analyte. Therefore: 277 divided by 36,178 equals 0.77% of these listed analytes resulting in an MCL violation.

Treatment technique violations of the Surface Water Treatment Rule (SWTR).

| Type of Treatment Technique | Number of Violations | Number of PWS's with Exceedances |
|---|---|---|
| Residual Disinfectant | -0- | -0- |
| CT Ratio | -0- | -0- |
| **Turbidity (average)** | **1** | **1** |
| Turbidity(sample > 5.0 NTU) | -0- | -0- |
| | | |
| Total | 1 | 1 |

## Monitoring and Reporting Violations

Monitoring and Reporting (M/R) Violations that are major (as determined by the EPA Administrator in consultation with the States, are listed in Table A and itemized in Table B.

For this reporting period there were 1409 M/R violations incurred by 373 PWS's which met the criteria. Several PWSs had M/Rs for more than one contaminant.

This table lists the MONITORING & REPORTING violations for each specific contaminant.

| Number of Violations | Contaminant | % Violations (# Viols divided by Total # Viols) |
|---|---|---|
| 1 | 1,1,1,2-Tetrachloroethane | 0.07% |
| 22 | 1,1,1-Trichloroethane | 1.56% |
| 1 | 1,1,2,2-Tetrachloroethane | 0.07% |
| 22 | 1,1,2-Trichloroethane | 1.56% |
| 1 | 1,1-Dichloroethane | 0.07% |
| 22 | 1,1-Dichloroethylene | 1.56% |
| 1 | 1,1-Dichloropropene | 0.07% |
| 1 | 1,2,3-Trichloropropane | 0.07% |
| 22 | 1,2,4-Trichlorobenzene | 1.56% |
| 22 | 1,2-Dichloroethane | 1.56% |
| 22 | 1,2-Dichloropropane | 1.56% |
| 1 | 1,3-Dichloropropane | 0.07% |
| 1 | 1,3-Dichloropropene | 0.07% |
| 1 | 2,2-Dichloropropane | 0.07% |
| 21 | 2,4,5-TP (Silvex) | 1.49% |
| 21 | 2,4-D | 1.49% |
| 21 | Alachlor (Lasso) | 1.49% |
| 5 | Antimony | 0.35% |
| 5 | Arsenic | 0.35% |
| 1 | Asbestos | 0.07% |
| 22 | Atrazine | 1.56% |
| 5 | Barium | 0.35% |
| 23 | Benzene | 1.63% |
| 21 | Benzo (a) Pyrene | 1.49% |
| 1 | Bromobenzene | 0.07% |
| 1 | Bromodichloromethane | 0.07% |
| 1 | Bromoform | 0.07% |
| 1 | Bromomethane | 0.07% |
| 1 | Butachlor (Machete) | 0.07% |
| 5 | Cadmium | 0.35% |
| 23 | Carbon Tetrachloride | 1.63% |

| Number of Violations | Contaminant, continued | % Violations (# Viols divided by Total # Viols) |
|---|---|---|
| 1 | Chlorodibromomethane | 0.07% |
| 1 | Chloroethane | 0.07% |
| 1 | Chloroform | 0.07% |
| 1 | Chloromethane | 0.07% |
| 5 | Chromium | 0.35% |
| 22 | cis-1,2-Dichloroethylene | 1.56% |
| 304 | Coliform, Total (TCR) | 21.58% |
| 21 | Dalapon | 1.49% |
| 22 | Di(2-Ethylhexyl) – Adipate | 1.56% |
| 22 | Di(2-Ethylhexyl) – Phthalate | 1.56% |
| 1 | Dibromomethane | 0.07% |
| 1 | Dicamba | 0.07% |
| 22 | Dichloromethane | 1.56% |
| 21 | Dinoseb | 1.49% |
| 24 | Ethylbenzene | 1.70% |
| 7 | Fluoride | 0.50% |
| 7 | Gross Alpha, excluding Rn & U | 0.50% |
| 29 | Lead & Copper Rule | 2.06% |
| 1 | m-Dichlorobenzene | 0.07% |
| 5 | Mercury | 0.35% |
| 1 | Metolachlor | 0.07% |
| 1 | Metribuzin (Sencor) | 0.07% |
| 22 | Monochlorobenzene | 1.56% |
| 228 | Nitrate (as N) | 16.18% |
| 26 | Nitrite (as N) | 1.85% |
| 1 | o-Chlorotoluene | 0.07% |
| 22 | o-Dichlorobenzene | 1.56% |
| 1 | p-Chlorotoluene | 0.07% |
| 22 | p-Dichlorobenzene | 1.56% |
| 21 | Pentachlorophenol | 1.49% |
| 21 | Picloram | 1.49% |
| 1 | Propachlor | 0.07% |
| 5 | Selenium | 0.35% |
| 21 | Simazine | 1.49% |
| 7 | Sodium | 0.50% |
| 22 | Styrene | 1.56% |
| 5 | Sulfate | 0.35% |
| 22 | Tetrachloroethylene | 1.56% |

| Number of Violations | Contaminant, continued | % Violations (# Viols divided by Total # Viols) |
|---|---|---|
| 5 | Thallium | 0.35% |
| 25 | Toluene | 1.77% |
| 2 | Total Trihalomethanes (TTHM) | 0.14% |
| 22 | trans-1,2-Dichloroethylene | 1.56% |
| 22 | Trichloroethylene | 1.56% |
| 22 | Vinyl Chloride | 1.56% |
| 26 | Xylenes | 1.85% |
| | | |
| | | 100.00% |

*Some PWS's had MCL violations for more than one contaminant.

The most recent enforcement action for each of the 1409 M/R violations in 2000.

| Types of Enforcement Actions | Number of Enforcement Actions |
|---|---|
| AO w/ Penalty | 44 |
| BCA issued | 3 |
| Compliance Achieved | 1311 |
| NOV issued | 51 |
| | |
| Total | 1409 |

The types of the various M/R violations are listed below.

| Violation Type | Number of Violations |
|---|---|
| Confirmation / Major Monitoring Violation | 38 |
| Repeat (coliform) MAJOR Monitoring Violation | 34 |
| Routine (coliform) MAJOR Monitoring Violation | 270 |
| Regular Monitoring Violation – non-coliform | 1038 |
| Follow-up or Routine Tap MONITORING & REPORTING (Pb/Cu) | 29 |
| | |
| Total | 1409 |

# Full Report

The Full Report is a detailed listing of all the MCL, MONITORING & REPORTING, Lead & Copper Rule, and TT violations of each regulated SDWA contaminant, along with the name of the PWS which incurred that violation. Violations can be resolved in a number of ways, as discussed below. The individual reports are listed in Tables B - Table E.

## Table B: 2000 Violations Report

The 2000 Violations Report, shown in Table B and lists all of the violations within the 2000 reporting period, except for Table C-Orphan Violations (violations for 1999 assigned after the 1999 Annual Compliance Report was generated in June 2000.), Table C-Continuing Radionuclide, and Table E-Lead/Copper Action Level Exceedances.

Report Legend for Table B – 2000 Violations

| | |
|---|---|
| PWS NAME | Business name of the Public Water System |
| PWSID NUMBER | Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS |
| POPULATION | Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census |
| COUNTY | County location of PWS |
| ☑ | When this box is checked, this PWS is classified as "seasonal", and is open only a few months of the year. |
| ANALYTE NAME | An analyte which is monitored under the SDWA |
| VIOLATION NAME | The EPA-assigned text description of the violation. |
| VIOLATION NUMBER | A unique and dedicated identification number assigned to each violation as it occurs. (IDNR use only) |
| COMPLIANCE BEGIN DATE | Beginning of the compliance period in which the violation occurred |
| ENFORCEMENT ACTION | Most recent action taken by the PWS and/or the IDNR in response to the violation |
| DATE OF ACTION | Date the follow-up action or enforcement action occurred |

### General Description of Enforcement Actions for MCL, TT, or AL Violations

An violation can occur for any regulated contaminant where EPA has determined an MCL, TT, or AL. The monitoring frequency is dependent upon both the type of contaminant and the levels previously found in a particular PWS for that contaminant. The most frequent possible occurrence of an MCL violation is once a month. Once an MCL violation has occurred, a supply must have six consecutive months without an MCL or M/R violation for that contaminant before it is considered to be returned to compliance. The enforcement action for that violation is then coded "Compliance Achieved" in the database.

For multiple repeat MCL, TT, or AL violations of a contaminant, the IDNR may issue a revised operation permit with conditions that require the PWS to remediate the violation by correcting operation deficiencies, adding treatment, blending water sources, or obtaining an alternative source of drinking water. Alternative sources may include construction of a new well or connection to another PWS. The violation is coded "BCA Signed" (Bilateral Compliance Agreement). Once the violation is resolved, the enforcement action for that violation is coded "Compliance Achieved" in the database.

A BCA is a Water Supply Operation Permit which has an appendix attached that assigns a compliance schedule for remediation of the MCL, TT, or AL violation. For coliform bacteria, if two or more violations occur in a 12-month period, the IDNR may issue a revised operation permit with conditions that require that PWS to remediate the violation. The violation is coded as "BCA Signed", and once the violation is resolved, the enforcement action for that violation is coded as "Compliance Achieved" in the database. When the conditions warrant, the IDNR may issue an AO to install chlorination immediately.

If three acute nitrate or nitrite MCL violations occur in a 12-month period, the IDNR may issue a revised operation permit with conditions that require that PWS to remediate the MCL problem. The violation is coded as "BCA Signed", and once the violation is resolved, the enforcement action for that violation is coded as "Compliance Achieved" in the database.

When a PWS continues to violate the MCL for a particular contaminant or is unwilling or unable to remediate the MCL, the IDNR issues an Administrative Order (AO), which is the next step in legally enforcing the BCA. The violation is coded as "AO w/ Penalty" (Administrative Order with monetary Penalty) or "AO w/o Penalty" (Administrative Order without monetary Penalty). AO's are generally issued without a monetary penalty, but may be issued with a penalty under certain circumstances. AO's issued to a PWS due to MCL violations are usually accompanied by a BCA which outlines the compulsory schedule for remediation.

For those PWS's listed in this report that show "Compliance Achieved", "BCA Signed", "AO With Penalty" (AO w/ Penalty), "AO Without Penalty" (AO w/o Penalty), Referred to Attorney General (AG), or Formal "Notice of Violation" Issued (NOV), under the ENFORCEMENT ACTION, appropriate enforcement actions have been taken by the State.

The other follow-up actions listed indicate the most recent action taken by the PWS. Those PWS's listed in this report that show Public Notice Requested or Public Notice Received under the ENFORCEMENT ACTION, have not been returned to compliance as of the date of this report. All of these PWS's are currently being tracked by the IDNR. When the criteria for Compliance Achieved are met, the violation is appropriately coded. Failure to achieve compliance may result in the issuance of a BCA with a schedule for remediation and/or an AO with penalty.

## General Description of M/R Violations and Enforcement Actions

The monitoring requirements for the contaminant types vary, depending upon the specific contaminant type as well as the historic levels of each specific contaminant found in the water supply. The most frequent monitoring requirement is for a monthly sample, and the least frequent monitoring requirement is for one sample every nine years.

The criteria for referral for legal action is dependent upon the number of MONITORING & REPORTING violations assigned to the PWS for a given contaminant.

Monthly monitoring requirements:
The criteria for an Administrative Order with Penalty (AOP) for M/R violations is four or more monthly M/R violations in a 12-month period. If the PWS meets this criteria, the IDNR will issue an AOP for failure to collect the required monthly compliance samples.

Quarterly monitoring requirements:
The criteria for an AOP for M/R violations is two or more quarterly M/R violations in a 12-month period. If the PWS meets this criteria, the IDNR will issue an AOP for failure to collect the required quarterly compliance samples.

Six-month or less frequent monitoring requirements:
If a M/R violation occurs for a contaminant on a six-month, annual, once per three years, once per four years, once per five years, or once per nine years sampling frequency, a NOV and a BCA is issued by the IDNR with a stipulated schedule for sample collection, which is usually one additional calendar quarter. If the PWS does not meet this deadline, the IDNR will immediately issue an AOP for failure to collect the required compliance sample.

Seasonal PWSs are most frequently closed between October and April. When these systems receive a violation for a compliance period right before closing for the winter, they must wait until they open to the public the following year before they can take their compliance samples.

## TABLE C - 2000 Orphan Violations

Report Legend for TABLE C - 1999 Orphan Violations *(These violations for 1999 were assigned after the 1999 Annual Compliance Report was generated in June 2000)*

| | |
|---|---|
| PWS NAME | Business name of the Public Water System |
| PWSID NUMBER | Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS |
| POPULATION | Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census |
| COUNTY | County location of PWS |
| ☑ | When this box is checked, this PWS is classified as "seasonal", and is open only a few months of the year. |
| ANALYTE NAME | An analyte which is monitored under the SDWA |
| VIOLATION NAME | The EPA-assigned text description of the violation. |
| VIOLATION NUMBER | A unique and dedicated identification number assigned to each violation as it occurs. (IDNR use only) |
| COMPLIANCE BEGIN DATE | Beginning of the compliance period in which the violation occurred |
| ENFORCEMENT ACTION | Most recent action taken by the PWS and/or the IDNR in response to the violation |
| DATE OF ACTION | Date the follow-up action or enforcement action occurred |

## TABLE D - 2000 Continuing Radionuclides

The Continuing Combined Radium 226 and 228 MCL Violations (Pre-2000) Report, shown in Table D lists the PWS's with these unresolved violations.

Report Legend for TABLE D – 2000 Continuing Radionuclides

| | |
|---|---|
| PWS NAME | Business name of the Public Water System |
| PWSID NUMBER | Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS |
| POPULATION | Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census |
| COUNTY | County location of PWS |
| ☑ | When this box is checked, this PWS is classified as "seasonal", and is open only a few months of the year. |
| ANALYTE NAME | An analyte which is monitored under the SDWA |
| VIOLATION NAME | The EPA-assigned text description of the violation. |
| VIOLATION NUMBER | A unique and dedicated identification number assigned to each violation as it occurs. (IDNR use only) |

Report Legend for TABLE D – 2000 Continuing Radionuclides (continued)

| | |
|---|---|
| COMPLIANCE BEGIN DATE | Beginning of the compliance period in which the violation occurred |
| ENFORCEMENT ACTION | Most recent action taken by the PWS and/or the IDNR in response to the violation |
| DATE OF ACTION | Date the follow-up action or enforcement action occurred |

## TABLE E - 2000 Lead/Copper Action Level Milestones

This report specifies the Lead and Copper Action Level Milestones for Iowa PWS's in 2000. Lead/Copper action level exceedances are not classified as violations but are "milestones" according to EPA.

Report Legend for Table E

| | |
|---|---|
| PWS NAME | Business name of the Public Water System |
| PWSID NUMBER | Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS |
| POPULATION | Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census |
| COUNTY | County location of PWS |
| ☑ | When this box is checked, this PWS is classified as "seasonal", and is open only a few months of the year. |
| ANALYTE NAME | An analyte which is monitored under the SDWA |
| VIOLATION NAME | The EPA-assigned text description of the violation. |
| VIOLATION NUMBER | A unique and dedicated identification number assigned to each violation as it occurs. (IDNR use only) |
| COMPLIANCE BEGIN DATE | Beginning of the compliance period in which the violation occurred |
| ENFORCEMENT ACTION | Most recent action taken by the PWS and/or the IDNR in response to the violation |
| DATE OF ACTION | Date the follow-up action or enforcement action occurred |

The Lead and Copper program requires remediation of the action level exceedances which may take several years to implement. Until the PWS has two acceptable sampling rounds after exceeding an action level, it is considered to be out of compliance.

# *TABLE B - 2000 Violations*

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA0375180 AGRI PROCESSORS, INC.** | | Population: | **175** | County: **ALLAMAKEE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03995 | 07/01/2000 | Compliance Achieved | 02/28/2001 |
| Coliform, Total (TCR) | Routine Major | 2001-01373 | 12/01/2000 | Compliance Achieved | 02/28/2001 |
| **IA3151201 AIRLINE INN** | | Population: | **53** | County: **DUBUQUE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04810 | 07/01/2000 | Compliance Achieved | 03/05/2001 |
| **IA0603072 ATKINS MUNICIPAL WATER WORKS** | | Population: | **977** | County: **BENTON** | |
| Carbon Tetrachloride | Routine Major | 2000-03888 | 04/01/2000 | Compliance Achieved | 07/24/2000 |
| **IA2821903 BACKBONE STATE PARK - CABINS** | | Population: | **40** | County: **DELAWARE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03044 | 06/01/2000 | Compliance Achieved | 02/08/2001 |
| **IA0709886 BEAVER HILLS COUNTRY CLUB** | | Population: | **107** | County: **BLACK HAWK** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04832 | 07/01/2000 | BCA issued | 01/02/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-01178 | 10/01/2000 | BCA issued | 01/02/2001 |
| **IA3342890 BIG ROCK COUNTRY CLUB** | | Population: | **52** | County: **FAYETTE** | |
| Nitrate (as N) | Routine Major | 2001-01457 | 12/01/2000 | Compliance Achieved | 03/19/2001 |
| **IA5784316 BLAIRS FERRY MANOR** | | Population: | **75** | County: **LINN** | |
| Nitrate (as N) | Routine Major | 2001-01488 | 10/01/2000 | Compliance Achieved | 03/07/2001 |
| **IA0607013 BLAIRSTOWN WATER SUPPLY** | | Population: | **682** | County: **BENTON** | |
| Radium, Combined (226, 228) | MCL, Single | 2000-05035 | 10/01/1996 | NOV issued | 09/28/2000 |
| **IA9630773 BLUFFTON STORE** | | Population: | **163** | County: **WINNESHIEK** | |
| Coliform, Total (TCR) | Routine Major | 2001-00192 | 07/01/2000 | Compliance Achieved | 10/10/2000 |
| Nitrate (as N) | Routine Major | 2001-01476 | 01/01/2000 | Compliance Achieved | 05/07/2001 |
| **IA1970204 BOWLAWAY LANES** | | Population: | **84** | County: **CHICKASAW** | |
| Coliform, Total (TCR) | Routine Major | 2000-02045 | 01/01/2000 | Compliance Achieved | 06/30/2000 |
| Nitrate (as N) | Routine Major | 2001-00267 | 10/01/1999 | Compliance Achieved | 11/29/2000 |
| **IA1967222 BRADFORD HOUSE** | | Population: | **110** | County: **CHICKASAW** | |
| Coliform, Total (TCR) | Routine Major | 2000-03659 | 04/01/2000 | Compliance Achieved | 08/14/2000 |
| Nitrate (as N) | Routine Major | 2000-03780 | 07/01/1999 | Compliance Achieved | 08/14/2000 |
| **IA5765201 BROGAN'S PUB & GRUB** | | Population: | **63** | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-01872 | 02/01/2000 | Compliance Achieved | 03/30/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-01265 | 11/01/2000 | Compliance Achieved | 12/04/2000 |
| **IA4515782 BUBBA'S BAR & GRILL** | | Population: | **42** | County: **HOWARD** | |
| Coliform, Total (TCR) | Routine Major | 2001-01404 | 10/01/2000 | Compliance Achieved | 01/03/2001 |
| **IA5720975 BUFFALO CREEK W.S., #01-36-HICKORY HILL** | | Population: | **25** | County: **LINN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03113 | 07/01/2000 | Compliance Achieved | 05/24/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03992 | 08/01/2000 | Compliance Achieved | 05/24/2001 |
| Coliform, Total (TCR) | Repeat Major | 2000-04890 | 08/01/2000 | Compliance Achieved | 09/20/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04891 | 08/01/2000 | Compliance Achieved | 09/20/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04954 | 09/01/2000 | Compliance Achieved | 05/24/2001 |
| **IA2279960 CAMP EWALU-CEDAR LODGE WELL #1** | | Population: | **72** | County: **CLAYTON** | |
| Nitrate (as N) | Confirmation/Check Major | 2000-02930 | 04/01/2000 | Compliance Achieved | 07/30/2000 |
| **IA5700601 CARLTON MOBILE HOME COURT** | | Population: | **85** | County: **LINN** | |
| Toluene | Routine Major | 2000-03890 | 04/01/2000 | Compliance Achieved | 08/07/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA3126204 CAT'S WHARF** | | Population: | **52** | County: **DUBUQUE** | |
| Coliform, Total (TCR) | Routine Major | 2000-03671 | 04/01/2000 | Compliance Achieved | 07/26/2000 |
| Coliform, Total (TCR) | Repeat Major | 2001-01182 | 10/01/2000 | Compliance Achieved | 03/22/2001 |
| Coliform, Total (TCR) | Routine Major | 2001-01327 | 12/01/2000 | Compliance Achieved | 03/22/2001 |
| **IA5715744 CED REL SUPPER CLUB AND MOTEL** | | Population: | **38** | County: **LINN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04874 | 07/01/2000 | NOV issued | 09/15/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-01330 | 12/01/2000 | Compliance Achieved | 05/23/2001 |
| **IA5715206 CEDAR RAPIDS LIGHTHOUSE INN, LTD.** | | Population: | **25** | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-01967 | 01/01/2000 | Compliance Achieved | 08/18/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03697 | 04/01/2000 | Compliance Achieved | 08/18/2000 |
| **IA5315967 CENTRAL PK-JONES CONSERVATION** | | Population: | **101** | County: **JONES** | |
| Coliform, Total (TCR) | Routine Major | 2000-03695 | 04/01/2000 | Compliance Achieved | 08/28/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA4509024 CHESTER WATER SUPPLY** | | Population: **151** | | County: **HOWARD** | |
| Alachlor (Lasso) | Routine Major | 2000-04378 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Atrazine | Routine Major | 2000-04379 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Benzo (a) Pyrene | Routine Major | 2000-04380 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| 2,4-D | Routine Major | 2000-04381 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Dalapon | Routine Major | 2000-04382 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Di(2-Ethylhexyl) - Adipate | Routine Major | 2000-04383 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Di(2-Ethylhexyl) - Phthalate | Routine Major | 2000-04384 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Dinoseb | Routine Major | 2000-04385 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Pentachlorophenol | Routine Major | 2000-04386 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Picloram | Routine Major | 2000-04387 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Simazine | Routine Major | 2000-04388 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| 2,4,5-TP (Silvex) | Routine Major | 2000-04389 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Benzene | Routine Major | 2000-04390 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Carbon Tetrachloride | Routine Major | 2000-04391 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| o-Dichlorobenzene | Routine Major | 2000-04392 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| p-Dichlorobenzene | Routine Major | 2000-04393 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| 1,2-Dichloroethane | Routine Major | 2000-04394 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| cis-1,2-Dichloroethylene | Routine Major | 2000-04395 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| 1,1-Dichloroethylene | Routine Major | 2000-04396 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| trans-1,2-Dichloroethylene | Routine Major | 2000-04397 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Dichloromethane | Routine Major | 2000-04398 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| 1,2-Dichloropropane | Routine Major | 2000-04399 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Ethylbenzene | Routine Major | 2000-04400 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Monochlorobenzene | Routine Major | 2000-04401 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Styrene | Routine Major | 2000-04402 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Tetrachloroethylene | Routine Major | 2000-04403 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Toluene | Routine Major | 2000-04404 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| 1,2,4-Trichlorobenzene | Routine Major | 2000-04405 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| 1,1,1-Trichloroethane | Routine Major | 2000-04406 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| 1,1,2-Trichloroethane | Routine Major | 2000-04407 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Trichloroethylene | Routine Major | 2000-04408 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Vinyl Chloride | Routine Major | 2000-04409 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| Xylenes | Routine Major | 2000-04410 | 07/01/1995 | Compliance Achieved | 09/29/2000 |
| **IA3317047 CLERMONT WATER SUPPLY** | | Population: **716** | | County: **FAYETTE** | |
| Radium, Combined (226, 228) | MCL, Single | 2000-05034 | 10/01/1996 | NOV issued | 09/28/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA0929200 CLIFF'S PLACE INC** | | Population: **51** | | County: **BREMER** | |
| Coliform, Total (TCR) | Routine Major | 2000-01947 | 01/01/2000 | Compliance Achieved | 01/09/2001 |
| Nitrate (as N) | Routine Major | 2000-02016 | 01/01/2000 | Compliance Achieved | 01/09/2001 |
| Coliform, Total (TCR) | Routine Major | 2000-03652 | 04/01/2000 | Compliance Achieved | 01/09/2001 |
| Nitrate (as N) | Routine Major | 2000-03779 | 04/01/2000 | Compliance Achieved | 01/09/2001 |
| Coliform, Total (TCR) | Routine Major | 2001-00061 | 07/01/2000 | Compliance Achieved | 01/09/2001 |
| Nitrate (as N) | Routine Major | 2001-00233 | 07/01/2000 | Compliance Achieved | 01/09/2001 |
| Coliform, Total (TCR) | Routine Major | 2001-01376 | 10/01/2000 | Compliance Achieved | 01/09/2001 |
| Nitrate (as N) | Routine Major | 2001-01460 | 10/01/2000 | Compliance Achieved | 01/09/2001 |
| **IA0600673 COUNTRY AIR MOBILE COURT** | | Population: **50** | | County: **BENTON** | |
| Lead & Copper Rule | Routine Tap | 2001-00055 | 10/01/1997 | Compliance Achieved | 10/26/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-00056 | 09/01/2000 | Compliance Achieved | 10/26/2000 |
| Nitrate (as N) | Routine Major | 2001-00243 | 10/01/1999 | Compliance Achieved | 10/26/2000 |
| Consumer Confidence Reports | CCR Report | 2001-00606 | 03/06/2000 | Compliance Achieved | 11/30/2000 |
| Nitrate (as N) | Confirmation/Check Major | 2001-01225 | 10/01/2000 | Compliance Achieved | 11/29/2000 |
| **IA5322201 COUNTRY STORE TO FAIRVIEW** | | Population: **414** | | County: **JONES** | |
| Coliform, Total (TCR) | Routine Major | 2000-02069 | 01/01/2000 | Compliance Achieved | 05/12/2000 |
| **IA0700675 COUNTRY TERRACE MOBILE HOME PARK** | | Population: **1000** | | County: **BLACK HAWK** | |
| Coliform, Total (TCR) | Routine Major | 2001-00058 | 09/01/2000 | Compliance Achieved | 10/24/2000 |
| **IA4515778 CRESCO GOLF AND COUNTRY CLUB** | | Population: **36** | | County: **HOWARD** | |
| Nitrate (as N) | MCL, Single | 2000-03054 | 06/01/2000 | NOV issued | 06/29/2000 |
| **IA4535779 DAVIS CORNERS CAFE** | | Population: **26** | | County: **HOWARD** | |
| Coliform, Total (TCR) | Routine Major | 2001-00691 | 10/01/2000 | Compliance Achieved | 11/27/2000 |
| **IA2817457 DELHI LAKEVIEW ESTATES, INC. #2** | | Population: **25** | | County: **DELAWARE** | |
| Nitrate (as N) | Routine Major | 2000-03011 | 05/01/2000 | Compliance Achieved | 07/21/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00654 | 10/01/2000 | NOV issued | 11/20/2000 |
| **IA2817456 DELHI LAKEVIEW ESTATES,INC #1** | | Population: **30** | | County: **DELAWARE** | |
| Nitrate (as N) | Routine Major | 2000-01881 | 02/01/2000 | Compliance Achieved | 03/23/2000 |
| **IA2817020 DELHI WATER SUPPLY** | | Population: **458** | | County: **DELAWARE** | |
| Nitrate (as N) | Routine Major | 2001-01453 | 10/01/2000 | Compliance Achieved | 02/20/2001 |
| Nitrate (as N) | Routine Major | 2001-01454 | 10/01/2000 | Compliance Achieved | 02/20/2001 |
| **IA2258603 DIAMOND EAGLE VILLAGE** | | Population: **57** | | County: **CLAYTON** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00671 | 11/01/2000 | NOV issued | 11/16/2000 |
| **IA0709205 DOERFER ENGINEERING COMPANY** | | Population: **80** | | County: **BLACK HAWK** | |
| Nitrate (as N) | Routine Major | 2000-01519 | 01/01/2000 | Compliance Achieved | 02/28/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03042 | 06/01/2000 | BCA issued | 06/13/2000 |
| **IA3126203 DOUBLE JJ BAR** | | Population: **42** | | County: **DUBUQUE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04970 | 07/01/2000 | Compliance Achieved | 03/21/2001 |
| **IA2839201 E-Z PICKINS TRUCK STOP** | | Population: **1006** | | County: **DELAWARE** | |
| Nitrate (as N) | Routine Major | 2000-04489 | 07/01/2000 | Compliance Achieved | 08/01/2000 |
| **IA5300901 EDINBURGH MANOR** | | Population: **49** | | County: **JONES** | |
| Coliform, Total (TCR) | Routine Major | 2001-01259 | 11/01/2000 | Compliance Achieved | 12/04/2000 |
| **IA5728018 ELY WATER SUPPLY** | | Population: **1149** | | County: **LINN** | |
| Nitrate (as N) | Routine Major | 2001-01455 | 10/01/2000 | Compliance Achieved | 02/27/2001 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA3130101 ERTL COMPANY** | | Population: **180** | | County: **DUBUQUE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03120 | 07/01/2000 | Compliance Achieved | 12/05/2000 |
| Coliform, Total (TCR) | MCL (TCR), Acute | 2000-03930 | 07/01/2000 | Compliance Achieved | 12/05/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03985 | 08/01/2000 | Compliance Achieved | 12/05/2000 |
| **IA5731201 FAIRFAX HANDIMART** | | Population: **504** | | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-02052 | 01/01/2000 | Compliance Achieved | 04/05/2000 |
| **IA5748302 FAIRWAY DRIVE WELL ASSOCIATION INC.** | | Population: **25** | | County: **LINN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03068 | 06/01/2000 | AO w/o Penalty | 07/17/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03099 | 07/01/2000 | AO w/o Penalty | 07/17/2000 |
| Coliform, Total (TCR) | MCL (TCR), Acute | 2000-03106 | 06/01/2000 | AO w/o Penalty | 07/17/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04835 | 08/01/2000 | AO w/o Penalty | 07/17/2000 |
| **IA5307101 FOOD WASTE SOLUTIONS** | | Population: **120** | | County: **JONES** | |
| Nitrate (as N) | Routine Major | 2000-01526 | 01/01/2000 | Compliance Achieved | 02/07/2000 |
| Nitrate (as N) | MCL, Single | 2000-01529 | 02/01/2000 | Compliance Achieved | 01/23/2001 |
| Nitrate (as N) | MCL, Single | 2000-01903 | 03/01/2000 | Compliance Achieved | 01/23/2001 |
| Nitrate (as N) | MCL, Single | 2000-02130 | 04/01/2000 | Compliance Achieved | 01/23/2001 |
| Nitrate (as N) | Non-Reported Type | 2000-02902 | 09/01/1999 | Compliance Achieved | 06/29/2000 |
| Nitrate (as N) | MCL, Single | 2000-03040 | 06/01/2000 | Compliance Achieved | 01/23/2001 |
| **IA4515201 FOREMOST FARMS USA (CRESCO)** | | Population: **42** | | County: **HOWARD** | |
| Nitrate (as N) | Routine Major | 2000-03750 | 07/01/1999 | Compliance Achieved | 08/07/2000 |
| **IA5715802 FOUR OAKS** | | Population: **60** | | County: **LINN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02890 | 06/01/2000 | AO w/o Penalty | 03/02/2001 |
| Coliform, Total (TCR) | Routine Major | 2000-03025 | 05/01/2000 | Compliance Achieved | 06/05/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03027 | 05/01/2000 | Compliance Achieved | 06/05/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03028 | 05/01/2000 | Compliance Achieved | 06/05/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03029 | 05/01/2000 | Compliance Achieved | 06/05/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00630 | 10/01/2000 | AO w/o Penalty | 03/02/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-01158 | 11/01/2000 | AO w/o Penalty | 03/02/2001 |
| **IA0922729 FREDERIKA'S STEIN & DINE** | | Population: **53** | | County: **BREMER** | |
| Nitrate (as N) | Routine Major | 2000-03836 | 07/01/1999 | Compliance Achieved | 08/09/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-04021 | 07/01/2000 | Compliance Achieved | 08/09/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04022 | 04/01/2000 | Compliance Achieved | 08/09/2000 |
| **IA5784313 GLENN OAKS ADDITION** | | Population: **88** | | County: **LINN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03046 | 06/01/2000 | Compliance Achieved | 01/10/2001 |
| **IA0790678 GOLDEN ACRES RETIREMENT VILLAGE** | | Population: **49** | | County: **BLACK HAWK** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03079 | 07/01/2000 | Compliance Achieved | 01/09/2001 |
| **IA2242204 GUTTENBERG GOLF & COUNTRY CLUB** | | Population: **129** | | County: **CLAYTON** | |
| Nitrate (as N) | MCL, Single | 2000-01896 | 03/01/2000 | Compliance Achieved | 10/02/2000 |
| Nitrate (as N) | MCL, Single | 2000-01909 | 04/01/2000 | Compliance Achieved | 10/02/2000 |
| **IA5327201 HALE TAP** | | Population: **29** | | County: **JONES** | |
| Coliform, Total (TCR) | Routine Major | 2000-03849 | 04/01/2000 | Compliance Achieved | 07/05/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-01509 | 10/01/2000 | Compliance Achieved | 01/22/2001 |
| **IA0330710 HARPERS CAFE AND MOTEL** | | Population: **33** | | County: **ALLAMAKEE** | |
| Nitrate (as N) | Routine Major | 2000-02000 | 01/01/2000 | Compliance Achieved | 06/27/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA2839203 HART RIDGE GOLF COURSE** | | Population: | **167** | County: **DELAWARE** | |
| Nitrate (as N) | Routine Major | 2000-02003 | 03/01/2000 | Compliance Achieved | 05/23/2000 |
| Nitrate (as N) | Routine Major | 2000-02186 | 04/01/2000 | Compliance Achieved | 05/23/2000 |
| **IA1031044 HAZLETON WATER SUPPLY** | | Population: | **950** | County: **BUCHANAN** | |
| Radium, Combined (226, 228) | MCL, Single | 2001-00028 | 10/01/1996 | NOV issued | 10/11/2000 |
| **IA1900901 HERITAGE RESIDENCE** | | Population: | **50** | County: **CHICKASAW** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-01453 | 01/01/2000 | AO w/o Penalty | 08/11/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02901 | 06/01/2000 | AO w/o Penalty | 08/11/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03934 | 07/01/2000 | AO w/o Penalty | 08/11/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04004 | 08/01/2000 | AO w/o Penalty | 08/11/2000 |
| **IA0990808 HERITAGE UNITED METHODIST CHURCH** | | Population: | **200** | County: **BREMER** | |
| Nitrate (as N) | Routine Major | 2000-03796 | 04/01/2000 | Compliance Achieved | 07/24/2000 |
| **IA3353746 HICKORY GROVE (GOLF COURSE)** | | Population: | **28** | County: **FAYETTE** | |
| Nitrate (as N) | MCL, Single | 2000-03103 | 07/01/2000 | Compliance Achieved | 08/07/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA0603301 HILLTOP HOMEOWNERS WELL ASSOC. INC.** | | Population: **29** | | County: **LINN** | |
| Alachlor (Lasso) | Routine Major | 2000-04345 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Atrazine | Routine Major | 2000-04346 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Benzo (a) Pyrene | Routine Major | 2000-04347 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| 2,4-D | Routine Major | 2000-04348 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Dalapon | Routine Major | 2000-04349 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Di(2-Ethylhexyl) - Adipate | Routine Major | 2000-04350 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Di(2-Ethylhexyl) - Phthalate | Routine Major | 2000-04351 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Dinoseb | Routine Major | 2000-04352 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Pentachlorophenol | Routine Major | 2000-04353 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Picloram | Routine Major | 2000-04354 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Simazine | Routine Major | 2000-04355 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| 2,4,5-TP (Silvex) | Routine Major | 2000-04356 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Benzene | Routine Major | 2000-04357 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Carbon Tetrachloride | Routine Major | 2000-04358 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| o-Dichlorobenzene | Routine Major | 2000-04359 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| p-Dichlorobenzene | Routine Major | 2000-04360 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| 1,2-Dichloroethane | Routine Major | 2000-04361 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| cis-1,2-Dichloroethylene | Routine Major | 2000-04362 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| 1,1-Dichloroethylene | Routine Major | 2000-04363 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| trans-1,2-Dichloroethylene | Routine Major | 2000-04364 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Dichloromethane | Routine Major | 2000-04365 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| 1,2-Dichloropropane | Routine Major | 2000-04366 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Ethylbenzene | Routine Major | 2000-04367 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Monochlorobenzene | Routine Major | 2000-04368 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Styrene | Routine Major | 2000-04369 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Tetrachloroethylene | Routine Major | 2000-04370 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Toluene | Routine Major | 2000-04371 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| 1,2,4-Trichlorobenzene | Routine Major | 2000-04372 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| 1,1,1-Trichloroethane | Routine Major | 2000-04373 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| 1,1,2-Trichloroethane | Routine Major | 2000-04374 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Trichloroethylene | Routine Major | 2000-04375 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Vinyl Chloride | Routine Major | 2000-04376 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| Xylenes | Routine Major | 2000-04377 | 07/01/1995 | Compliance Achieved | 09/18/2000 |
| **IA5715204 HITTER'S SPORTS PARK** | | Population: **400** | | County: **LINN** | |
| Nitrate (as N) | Routine Major | 2000-03742 | 07/01/1999 | Compliance Achieved | 04/09/2001 |
| Nitrate (as N) | Confirmation/Check Major | 2000-04906 | 07/01/2000 | Compliance Achieved | 04/09/2001 |
| **IA4500901 HOWARD RESIDENTIAL CARE FACILITY** | | Population: **73** | | County: **HOWARD** | |
| Nitrate (as N) | MCL, Single | 2000-03972 | 07/01/2000 | Compliance Achieved | 01/03/2001 |
| **IA1000600 INDEPENDENCE MOBILE HOME PARK** | | Population: **60** | | County: **BUCHANAN** | |
| Coliform, Total (TCR) | Routine Major | 2000-02995 | 05/01/2000 | Compliance Achieved | 07/31/2000 |
| Consumer Confidence Reports | CCR Report | 2001-00602 | 03/06/2000 | No EPA Enforcement Action | 08/31/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA2234441 J WOOD PARK** | | Population: | **25** | County: **CLAYTON** | |
| Coliform, Total (TCR) | Repeat Major | 2000-02156 | 04/01/2000 | Compliance Achieved | 05/08/2000 |
| Nitrate (as N) | Routine Major | 2001-00231 | 07/01/2000 | Compliance Achieved | 04/11/2001 |
| Nitrate (as N) | Routine Major | 2001-00268 | 07/01/2000 | Compliance Achieved | 04/11/2001 |
| **IA3102303 JE-TAC, INC.** | | Population: | **150** | County: **DUBUQUE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00016 | 10/01/2000 | Compliance Achieved | 04/10/2001 |
| **IA1951201 JERICO JO'S** | | Population: | **28** | County: **CHICKASAW** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00626 | 10/01/2000 | AO w/o Penalty | 11/09/2000 |
| Coliform, Total (TCR) | MCL (TCR), Acute | 2001-00658 | 10/01/2000 | AO w/o Penalty | 11/09/2000 |
| **IA5786890 JEWEL'S FOOD & SPIRITS** | | Population: | **29** | County: **LINN** | |
| Nitrate (as N) | MCL, Single | 2000-03994 | 08/01/2000 | Compliance Achieved | 02/14/2001 |
| **IA9630204 JEWELL SKATE COUNTRY** | | Population: | **104** | County: **WINNESHIEK** | |
| Nitrate (as N) | Routine Major | 2000-02050 | 04/01/1999 | Compliance Achieved | 04/25/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03831 | 04/01/2000 | Compliance Achieved | 07/24/2000 |
| **IA5718201 JIM ARENSON CHEVROLET** | | Population: | **75** | County: **LINN** | |
| Nitrate (as N) | Routine Major | 2000-03777 | 07/01/1999 | Compliance Achieved | 09/18/2000 |
| Nitrate (as N) | Confirmation/Check Major | 2000-04916 | 07/01/2000 | Compliance Achieved | 09/18/2000 |
| **IA3353201 K MART** | | Population: | **875** | County: **FAYETTE** | |
| Nitrate (as N) | Routine Major | 2000-01523 | 01/01/2000 | Compliance Achieved | 02/01/2000 |
| Nitrate (as N) | Routine Major | 2000-02191 | 04/01/2000 | Compliance Achieved | 05/15/2000 |
| Nitrate (as N) | Routine Major | 2001-01280 | 11/01/2000 | Compliance Achieved | 12/04/2000 |
| Lead & Copper Rule | Routine Tap | 2001-01394 | 07/01/2000 | NOV issued | 02/12/2001 |
| **IA0712204 KATHY'S KORNER** | | Population: | **50** | County: **BLACK HAWK** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-01464 | 01/01/2000 | Compliance Achieved | 12/21/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-01855 | 02/01/2000 | Compliance Achieved | 03/21/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-01898 | 03/01/2000 | Compliance Achieved | 12/21/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-01940 | 03/01/2000 | Compliance Achieved | 05/03/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02125 | 04/01/2000 | Compliance Achieved | 12/21/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02134 | 05/01/2000 | Compliance Achieved | 12/21/2000 |
| Coliform, Total (TCR) | MCL (TCR), Acute | 2000-02914 | 05/01/2000 | Compliance Achieved | 12/21/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-02977 | 04/01/2000 | Compliance Achieved | 06/14/2000 |
| **IA0922201 KIMS KAFE** | | Population: | **82** | County: **BREMER** | |
| Coliform, Total (TCR) | Repeat Major | 2000-00940 | 10/01/1999 | Compliance Achieved | 03/30/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-01485 | 01/01/2000 | Compliance Achieved | 03/30/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA3102501 KINDERLAND INC PRESCHOOL AND DAYCARE** | | Population: **75** | | County: **DUBUQUE** | |
| Coliform, Total (TCR) | Routine Major | 2000-01868 | 02/01/2000 | Compliance Achieved | 04/12/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-01957 | 03/01/2000 | Compliance Achieved | 11/28/2000 |
| Nitrite (as N) | Routine Major | 2000-02039 | 04/01/1999 | Compliance Achieved | 11/28/2000 |
| Nitrate (as N) | Routine Major | 2000-02040 | 04/01/1999 | Compliance Achieved | 11/28/2000 |
| Nitrate (as N) | Confirmation/Check Major | 2000-02931 | 04/01/2000 | Compliance Achieved | 11/28/2000 |
| Nitrite (as N) | Confirmation/Check Major | 2000-02932 | 04/01/2000 | Compliance Achieved | 11/28/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03001 | 05/01/2000 | Compliance Achieved | 07/26/2000 |
| Lead & Copper Rule | Routine Tap | 2000-03669 | 01/01/2000 | Compliance Achieved | 09/14/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03670 | 06/01/2000 | Compliance Achieved | 09/14/2000 |
| Benzene | Routine Major | 2000-04523 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Carbon Tetrachloride | Routine Major | 2000-04524 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| o-Dichlorobenzene | Routine Major | 2000-04525 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| p-Dichlorobenzene | Routine Major | 2000-04526 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| 1,2-Dichloroethane | Routine Major | 2000-04527 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| cis-1,2-Dichloroethylene | Routine Major | 2000-04528 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| 1,1-Dichloroethylene | Routine Major | 2000-04529 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| trans-1,2-Dichloroethylene | Routine Major | 2000-04530 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Dichloromethane | Routine Major | 2000-04531 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| 1,2-Dichloropropane | Routine Major | 2000-04532 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Ethylbenzene | Routine Major | 2000-04533 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Monochlorobenzene | Routine Major | 2000-04534 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Styrene | Routine Major | 2000-04535 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Tetrachloroethylene | Routine Major | 2000-04536 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Toluene | Routine Major | 2000-04537 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| 1,2,4-Trichlorobenzene | Routine Major | 2000-04538 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| 1,1,1-Trichloroethane | Routine Major | 2000-04539 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| 1,1,2-Trichloroethane | Routine Major | 2000-04540 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Trichloroethylene | Routine Major | 2000-04541 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Vinyl Chloride | Routine Major | 2000-04542 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Xylenes | Routine Major | 2000-04543 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Sulfate | Routine Major | 2000-04544 | 07/01/1999 | AO w/ Penalty | 08/31/2000 |
| Antimony | Routine Major | 2000-04545 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Arsenic | Routine Major | 2000-04546 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Barium | Routine Major | 2000-04547 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Cadmium | Routine Major | 2000-04548 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Chromium | Routine Major | 2000-04549 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Fluoride | Routine Major | 2000-04550 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Mercury | Routine Major | 2000-04551 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Selenium | Routine Major | 2000-04552 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Sodium | Routine Major | 2000-04553 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Thallium | Routine Major | 2000-04554 | 07/01/1991 | AO w/ Penalty | 08/31/2000 |
| Alachlor (Lasso) | Routine Major | 2000-04555 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Atrazine | Routine Major | 2000-04556 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| Benzo (a) Pyrene | Routine Major | 2000-04557 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| 2,4-D | Routine Major | 2000-04558 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Dalapon | Routine Major | 2000-04559 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Di(2-Ethylhexyl) - Adipate | Routine Major | 2000-04560 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Di(2-Ethylhexyl) - Phthalate | Routine Major | 2000-04561 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Dinoseb | Routine Major | 2000-04562 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Pentachlorophenol | Routine Major | 2000-04563 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Picloram | Routine Major | 2000-04564 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Simazine | Routine Major | 2000-04565 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| 2,4,5-TP (Silvex) | Routine Major | 2000-04566 | 07/01/1995 | AO w/ Penalty | 08/31/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-04980 | 08/01/2000 | Compliance Achieved | 09/14/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-00717 | 10/01/2000 | Compliance Achieved | 03/09/2001 |
| Lead & Copper Rule | Routine Tap | 2001-01391 | 07/01/2000 | NOV issued | 02/12/2001 |
| **IA2223871 KINGDOM HALL** | | Population: | **50** | County: **CLAYTON** | |
| Nitrate (as N) | Routine Major | 2000-02051 | 04/01/1999 | Compliance Achieved | 04/11/2000 |
| **IA3100602 KNAPP MOBILE HOME COURT NO 4** | | Population: | **87** | County: **DUBUQUE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02915 | 06/01/2000 | Compliance Achieved | 12/27/2000 |
| **IA1957201 L T TAP** | | Population: | **25** | County: **CHICKASAW** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-01459 | 01/01/2000 | Compliance Achieved | 09/19/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-01534 | 02/01/2000 | Compliance Achieved | 09/19/2000 |
| Nitrate (as N) | Routine Major | 2000-04999 | 08/01/2000 | Compliance Achieved | 09/11/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-01381 | 10/01/2000 | Compliance Achieved | 03/05/2001 |
| Nitrate (as N) | Routine Major | 2001-01497 | 12/01/2000 | Compliance Achieved | 03/05/2001 |
| **IA0743888 LA PORTE GOLF COURSE** | | Population: | **40** | County: **BLACK HAWK** | |
| Coliform, Total (TCR) | Routine Major | 2001-00059 | 07/01/2000 | Compliance Achieved | 11/28/2000 |
| **IA3353202 LAKE SHORE RESORTS CLUB INC** | | Population: | **65** | County: **FAYETTE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03957 | 07/01/2000 | NOV issued | 08/28/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04072 | 04/01/2000 | Compliance Achieved | 08/10/2000 |
| **IA3300769 LAKEVIEW GOLF COURSE, INC.** | | Population: | **41** | County: **FAYETTE** | |
| Nitrate (as N) | Routine Major | 2000-02182 | 04/01/2000 | Compliance Achieved | 08/10/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-00104 | 07/01/2000 | Compliance Achieved | 10/26/2000 |
| **IA4515901 LIDTKE PARK** | | Population: | **25** | County: **HOWARD** | |
| Coliform, Total (TCR) | Routine Major | 2000-03683 | 04/01/2000 | Compliance Achieved | 07/31/2000 |
| **IA5758301 LINN CREST HEIGHTS** | | Population: | **40** | County: **LINN** | |
| Lead & Copper Rule | Routine Tap | 2001-00144 | 10/01/1997 | Compliance Achieved | 10/23/2000 |
| **IA4910861 LOMBARDI'S** | | Population: | **54** | County: **DUBUQUE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00038 | 10/01/2000 | Compliance Achieved | 04/23/2001 |
| **IA4515202 LONG BRANCH SALOON** | | Population: | **27** | County: **HOWARD** | |
| Nitrate (as N) | Routine Major | 2001-01561 | 10/01/2000 | Compliance Achieved | 03/22/2001 |
| **IA4955725 LONG BRANCH TAVERN** | | Population: | **35** | County: **JACKSON** | |
| Coliform, Total (TCR) | Routine Major | 2001-01409 | 10/01/2000 | Compliance Achieved | 02/12/2001 |
| **IA5715209 LOYAL ORDER OF THE MOOSE LODGE/C RAPIDS** | | Population: | **25** | County: **LINN** | |
| Nitrite (as N) | Confirmation/Check Major | 2000-01798 | 01/01/2000 | Compliance Achieved | 03/22/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03861 | 04/01/2000 | Compliance Achieved | 07/31/2000 |
| **IA2254061 LUANA WATER WORKS** | | Population: | **249** | County: **CLAYTON** | |
| Coliform, Total (TCR) | Routine Major | 2000-03660 | 06/01/2000 | Compliance Achieved | 07/10/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA2258201 MAGGIE'S DINER** | | Population: | **41** | County: **CLAYTON** | |
| Nitrate (as N) | MCL, Single | 2000-01440 | 01/01/2000 | Compliance Achieved | 05/23/2001 |
| Nitrate (as N) | Routine Major | 2000-01883 | 02/01/2000 | Compliance Achieved | 03/14/2000 |
| Nitrate (as N) | MCL, Single | 2000-01890 | 03/01/2000 | Compliance Achieved | 05/23/2001 |
| Nitrate (as N) | Routine Major | 2000-03017 | 05/01/2000 | Compliance Achieved | 08/07/2000 |
| Nitrate (as N) | Routine Major | 2001-00272 | 09/01/2000 | Compliance Achieved | 11/06/2000 |
| Nitrate (as N) | Routine Major | 2001-01496 | 12/01/2000 | Compliance Achieved | 03/12/2001 |
| **IA2839202 MANCHESTER LIVESTOCK AUCTION/COUNTRY** | | Population: | **123** | County: **DELAWARE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03128 | 07/01/2000 | Compliance Achieved | 01/23/2001 |
| **IA5751035 MARION MUNICIPAL WATER DEPT** | | Population: | **26294** | County: **LINN** | |
| Nitrate (as N) | Routine Major | 2000-03782 | 07/01/1999 | Compliance Achieved | 07/24/2000 |
| Nitrate (as N) | Routine Major | 2000-03783 | 07/01/1999 | Compliance Achieved | 07/24/2000 |
| **IA5751301 MEADOW KNOLLS ADDITION** | | Population: | **59** | County: **LINN** | |
| Consumer Confidence Reports | CCR Report | 2001-00637 | 07/01/2000 | No EPA Enforcement Action | |
| **IA3353718 MEADOW MIST MOTEL** | | Population: | **25** | County: **FAYETTE** | |
| Nitrate (as N) | Routine Major | 2000-02023 | 04/01/1999 | Compliance Achieved | 10/02/2000 |
| Nitrate (as N) | Confirmation/Check Major | 2000-02933 | 04/01/2000 | Compliance Achieved | 10/02/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03675 | 04/01/2000 | Compliance Achieved | 09/29/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-01395 | 10/01/2000 | NOV issued | 01/24/2001 |
| **IA5722748 MEADOW VIEW COUNTRY CLUB** | | Population: | **42** | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-03698 | 04/01/2000 | Compliance Achieved | 09/26/2000 |
| **IA3100740 MID-MART, INC.** | | Population: | **51** | County: **DUBUQUE** | |
| Coliform, Total (TCR) | Routine Major | 2000-01956 | 01/01/2000 | Compliance Achieved | 06/22/2000 |
| Nitrate (as N) | Routine Major | 2001-01502 | 01/01/2000 | Compliance Achieved | 02/28/2001 |
| **IA5784302 MIDWAY WATER AND LIGHTING** | | Population: | **72** | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-01511 | 01/01/2000 | Compliance Achieved | 02/23/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03700 | 06/01/2000 | Compliance Achieved | 07/27/2000 |
| **IA5300688 MONTI-VIEW MOBILE HOME PARK** | | Population: | **75** | County: **JONES** | |
| Consumer Confidence Reports | CCR Report | 2001-00609 | 03/06/2000 | AO w/ Penalty | 11/09/2000 |
| **IA1974222 MOONSHINE TAP** | | Population: | **40** | County: **CHICKASAW** | |
| Coliform, Total (TCR) | Routine Major | 2000-01952 | 01/01/2000 | Compliance Achieved | 04/30/2000 |
| Nitrate (as N) | Routine Major | 2001-00248 | 10/01/1999 | Compliance Achieved | 12/06/2000 |
| Nitrate (as N) | Confirmation/Check Major | 2001-01226 | 10/01/2000 | Compliance Achieved | 12/06/2000 |
| **IA5715973 MORGAN CREEK PARK** | | Population: | **30** | County: **LINN** | |
| Nitrate (as N) | Confirmation/Check Major | 2000-02147 | 10/01/1999 | Compliance Achieved | 04/06/2000 |
| **IA5758801 MOUNT VERNON COMMUNITY BIBLE CHURCH** | | Population: | **43** | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-03699 | 04/01/2000 | Compliance Achieved | 09/29/2000 |
| **IA3126902 NAVAL RESERVE CENTER** | | Population: | **35** | County: **DUBUQUE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03055 | 04/01/2000 | Compliance Achieved | 01/29/2001 |
| Coliform, Total (TCR) | MCL (TCR), Acute | 2000-03076 | 04/01/2000 | Compliance Achieved | 01/29/2001 |
| **IA1031201 NEOWA FS, INC.** | | Population: | **41** | County: **BUCHANAN** | |
| Nitrate (as N) | MCL, Single | 2000-02158 | 07/01/1999 | AO w/o Penalty | 12/01/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03081 | 07/01/2000 | AO w/o Penalty | 12/01/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03973 | 08/01/2000 | AO w/o Penalty | 12/01/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA9630780 NOB HILL SUPPER CLUB** | | Population: **65** | | County: **WINNESHIEK** | |
| Coliform, Total (TCR) | Routine Major | 2000-01876 | 02/01/2000 | Compliance Achieved | 03/14/2000 |
| Nitrate (as N) | Routine Major | 2000-01880 | 02/01/2000 | Compliance Achieved | 03/14/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03734 | 06/01/2000 | Compliance Achieved | 01/29/2001 |
| Nitrate (as N) | Routine Major | 2000-03803 | 06/01/2000 | Compliance Achieved | 01/29/2001 |
| Nitrate (as N) | MCL, Single | 2000-04811 | 08/01/2000 | Compliance Achieved | 01/29/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04879 | 09/01/2000 | Compliance Achieved | 01/29/2001 |
| Nitrate (as N) | Routine Major | 2001-00246 | 09/01/2000 | Compliance Achieved | 01/29/2001 |
| Coliform, Total (TCR) | Routine Major | 2001-00707 | 10/01/2000 | Compliance Achieved | 01/29/2001 |
| Nitrate (as N) | Routine Major | 2001-01000 | 10/01/2000 | Compliance Achieved | 01/29/2001 |
| Coliform, Total (TCR) | Routine Major | 2001-01274 | 11/01/2000 | Compliance Achieved | 01/29/2001 |
| Nitrate (as N) | Routine Major | 2001-01278 | 11/01/2000 | Compliance Achieved | 01/29/2001 |
| Coliform, Total (TCR) | Routine Major | 2001-01439 | 12/01/2000 | Compliance Achieved | 01/29/2001 |
| Nitrate (as N) | Routine Major | 2001-01474 | 12/01/2000 | Compliance Achieved | 01/29/2001 |
| **IA5784311 OAK VALLEY** | | Population: **154** | | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-02199 | 04/01/2000 | Compliance Achieved | 11/14/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03026 | 05/01/2000 | Compliance Achieved | 11/14/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03913 | 07/01/2000 | Compliance Achieved | 04/03/2001 |
| **IA0670801 OAKGROVE CHRISTIAN CHURCH** | | Population: **140** | | County: **BENTON** | |
| Nitrite (as N) | Routine Major | 2001-01542 | 01/01/2000 | Compliance Achieved | 02/20/2001 |
| **IA5355094 OLIN WATER SUPPLY** | | Population: **716** | | County: **JONES** | |
| Xylenes | Routine Major | 2001-01552 | 10/01/2000 | Compliance Achieved | 01/30/2001 |
| Toluene | Routine Major | 2001-01553 | 10/01/2000 | Compliance Achieved | 01/30/2001 |
| **IA5358096 ONSLOW WATER SUPPLY** | | Population: **223** | | County: **JONES** | |
| Consumer Confidence Reports | CCR Report | 2001-00608 | 03/06/2000 | Compliance Achieved | 10/26/2000 |
| **IA2242203 OSTERDOCK STORE** | | Population: **26** | | County: **CLAYTON** | |
| Coliform, Total (TCR) | Repeat Major | 2000-01493 | 01/01/2000 | Compliance Achieved | 11/30/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-01554 | 02/01/2000 | Compliance Achieved | 11/30/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03967 | 07/01/2000 | AO w/o Penalty | 08/14/2000 |
| Coliform, Total (TCR) | MCL (TCR), Acute | 2000-04005 | 07/01/2000 | AO w/o Penalty | 08/14/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04819 | 08/01/2000 | AO w/o Penalty | 08/14/2000 |
| **IA5361020 OXFORD JUNCTION WATER SUPPLY** | | Population: **573** | | County: **JONES** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-01135 | 11/01/2000 | Compliance Achieved | 05/01/2001 |
| **IA5751945 PALISADES KEPLER ST PARK-RANGER RES. & P** | | Population: **308** | | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-04986 | 08/01/2000 | Compliance Achieved | 10/09/2000 |
| **IA5751946 PALISADES KEPLER STATE PARK-LODGE** | | Population: **208** | | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-04987 | 08/01/2000 | Compliance Achieved | 10/09/2000 |
| **IA5765203 PALO MINIMART** | | Population: **25** | | County: **LINN** | |
| Nitrate (as N) | MCL, Single | 2000-00890 | 01/01/2000 | Compliance Achieved | 12/20/2000 |
| Nitrate (as N) | MCL, Single | 2000-01528 | 02/01/2000 | Compliance Achieved | 11/06/2000 |
| Nitrate (as N) | MCL, Single | 2000-01918 | 04/01/2000 | Compliance Achieved | 11/06/2000 |
| Nitrate (as N) | Routine Major | 2000-02024 | 03/01/2000 | Compliance Achieved | 11/06/2000 |
| Nitrate (as N) | Routine Major | 2001-00999 | 10/01/2000 | Compliance Achieved | 11/06/2000 |
| **IA3353719 PARK VIEW MOTEL** | | Population: **27** | | County: **FAYETTE** | |
| Nitrate (as N) | Routine Major | 2001-00205 | 07/01/2000 | Compliance Achieved | 10/03/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA3170001 PEOSTA WATER SUPPLY** | | Population: **651** | | County: **DUBUQUE** | |
| Nitrate (as N) | Routine Major | 2001-00235 | 09/01/2000 | Compliance Achieved | 10/30/2000 |
| **IA5343413 PICTURED ROCKS METHODIST CAMP** | | Population: **29** | | County: **JONES** | |
| Nitrate (as N) | Routine Major | 2001-00224 | 09/01/2000 | Compliance Achieved | 11/13/2000 |
| **IA4509501 PINE GROVE MENNONITE SCHOOL** | | Population: **45** | | County: **HOWARD** | |
| Nitrate (as N) | Routine Major | 2001-01448 | 01/01/2000 | Compliance Achieved | 02/26/2001 |
| **IA5720907 PINICON RIDGE C** | | Population: **150** | | County: **LINN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03114 | 07/01/2000 | Compliance Achieved | 01/04/2001 |
| Coliform, Total (TCR) | MCL (TCR), Acute | 2000-03122 | 07/01/2000 | Compliance Achieved | 01/04/2001 |
| **IA1037301 PINT'S SUBDIVISION** | | Population: **87** | | County: **BUCHANAN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00659 | 11/01/2000 | NOV issued | 11/13/2000 |
| **IA4910402 PLEASANT CREEK PUBLIC AREA 2** | | Population: **117** | | County: **DUBUQUE** | |
| Nitrate (as N) | Routine Major | 2000-03760 | 07/01/1999 | Compliance Achieved | 07/18/2000 |
| **IA1940827 PLUM CREEK GOLF CLUB** | | Population: **25** | | County: **CHICKASAW** | |
| Nitrate (as N) | MCL, Single | 2000-02124 | 04/01/2000 | BCA issued | 07/12/2000 |
| Nitrate (as N) | MCL, Single | 2000-03038 | 06/01/2000 | BCA issued | 07/12/2000 |
| Nitrate (as N) | MCL, Single | 2000-03086 | 07/01/2000 | BCA issued | 07/12/2000 |
| **IA4965201 PLUM CREEK GOLF COURSE (PRESTON)** | | Population: **122** | | County: **JACKSON** | |
| Coliform, Total (TCR) | Routine Major | 2000-03837 | 04/01/2000 | Compliance Achieved | 07/31/2000 |
| **IA0690885 PONDEROSA BALLROOM** | | Population: **100** | | County: **BENTON** | |
| Coliform, Total (TCR) | Routine Major | 2000-01944 | 01/01/2000 | Compliance Achieved | 09/18/2000 |
| Coliform, Total (TCR) | Routine Major | 2000-03649 | 04/01/2000 | Compliance Achieved | 09/18/2000 |
| **IA5772054 PRAIRIEBURG MUNI. WATER SUPPLY** | | Population: **175** | | County: **LINN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04824 | 08/01/2000 | Compliance Achieved | 04/04/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-05007 | 09/01/2000 | Compliance Achieved | 04/04/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00032 | 10/01/2000 | Compliance Achieved | 04/04/2001 |
| **IA1074567 QUASQUETON ELEMENTARY SCHOOL** | | Population: **265** | | County: **BUCHANAN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00022 | 10/01/2000 | BCA issued | 02/23/2001 |
| **IA3158589 R H C L SCHOOL** | | Population: **111** | | County: **DUBUQUE** | |
| Nitrate (as N) | Routine Major | 2001-00245 | 10/01/1999 | Compliance Achieved | 11/07/2000 |
| **IA5377727 R J'S STATION** | | Population: **31** | | County: **JONES** | |
| Coliform, Total (TCR) | Routine Major | 2000-01871 | 02/01/2000 | Compliance Achieved | 03/13/2000 |
| Nitrate (as N) | Routine Major | 2000-01886 | 02/01/2000 | Compliance Achieved | 03/13/2000 |
| Nitrate (as N) | MCL, Single | 2000-01908 | 04/01/2000 | Compliance Achieved | 10/16/2000 |
| Nitrate (as N) | MCL, Single | 2001-00612 | 01/01/2000 | Compliance Achieved | 10/16/2000 |
| **IA1946201 RALEIGH HILLS GOLF COURSE** | | Population: **66** | | County: **CHICKASAW** | |
| Nitrate (as N) | Routine Major | 2000-02053 | 04/01/1999 | Compliance Achieved | 04/05/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA4558001 RICEVILLE WATER SUPPLY** | | Population: **840** | | County: **HOWARD** | |
| Coliform, Total (TCR) | Routine Major | 2000-01960 | 03/01/2000 | Compliance Achieved | 04/04/2000 |
| Alachlor (Lasso) | Routine Major | 2000-02379 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Atrazine | Routine Major | 2000-02380 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Benzo (a) Pyrene | Routine Major | 2000-02381 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| 2,4-D | Routine Major | 2000-02382 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Dalapon | Routine Major | 2000-02383 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Di(2-Ethylhexyl) - Adipate | Routine Major | 2000-02384 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Di(2-Ethylhexyl) - Phthalate | Routine Major | 2000-02385 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Dinoseb | Routine Major | 2000-02386 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Pentachlorophenol | Routine Major | 2000-02387 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Picloram | Routine Major | 2000-02388 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Simazine | Routine Major | 2000-02389 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| 2,4,5-TP (Silvex) | Routine Major | 2000-02390 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Benzene | Routine Major | 2000-02391 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Carbon Tetrachloride | Routine Major | 2000-02392 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| o-Dichlorobenzene | Routine Major | 2000-02393 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| p-Dichlorobenzene | Routine Major | 2000-02394 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| 1,2-Dichloroethane | Routine Major | 2000-02395 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| cis-1,2-Dichloroethylene | Routine Major | 2000-02396 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| 1,1-Dichloroethylene | Routine Major | 2000-02397 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| trans-1,2-Dichloroethylene | Routine Major | 2000-02398 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Dichloromethane | Routine Major | 2000-02399 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| 1,2-Dichloropropane | Routine Major | 2000-02400 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Ethylbenzene | Routine Major | 2000-02401 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Monochlorobenzene | Routine Major | 2000-02402 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Styrene | Routine Major | 2000-02403 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Tetrachloroethylene | Routine Major | 2000-02404 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Toluene | Routine Major | 2000-02405 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| 1,2,4-Trichlorobenzene | Routine Major | 2000-02406 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| 1,1,1-Trichloroethane | Routine Major | 2000-02407 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| 1,1,2-Trichloroethane | Routine Major | 2000-02408 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Trichloroethylene | Routine Major | 2000-02409 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Vinyl Chloride | Routine Major | 2000-02410 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| Xylenes | Routine Major | 2000-02411 | 04/01/1995 | Compliance Achieved | 08/31/2000 |
| **IA3100648 RILEY DEVELOPMENT** | | Population: **30** | | County: **DUBUQUE** | |
| Nitrate (as N) | Routine Major | 2000-03816 | 07/01/1999 | Compliance Achieved | 07/24/2000 |
| **IA5748201 RIVERSTONE** | | Population: **65** | | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2001-01539 | 10/01/2000 | Compliance Achieved | 03/28/2001 |
| Nitrite (as N) | Routine Major | 2001-01540 | 01/01/2000 | Compliance Achieved | 03/28/2001 |
| Nitrate (as N) | Routine Major | 2001-01541 | 01/01/2000 | Compliance Achieved | 03/28/2001 |
| **IA2817710 ROCKY NOOK ASSOCIATION, INC.** | | Population: **50** | | County: **DELAWARE** | |
| Nitrate (as N) | Routine Major | 2000-03019 | 05/01/2000 | Compliance Achieved | 10/08/2000 |
| **IA1080568 ROWLEY ELEMENTARY SCHOOL** | | Population: **145** | | County: **BUCHANAN** | |
| Coliform, Total (TCR) | Routine Major | 2000-03653 | 06/01/2000 | Compliance Achieved | 11/07/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA3126590 SAGEVILLE ELEMENTARY SCHOOL** | | Population: **435** | | County: **DUBUQUE** | |
| Nitrate (as N) | Routine Major | 2001-01442 | 01/01/2000 | Compliance Achieved | 02/14/2001 |
| **IA4515709 SCOOTER'S TOWER CLUB** | | Population: **40** | | County: **HOWARD** | |
| Coliform, Total (TCR) | Routine Major | 2000-04042 | 07/01/2000 | Compliance Achieved | 03/21/2001 |
| Coliform, Total (TCR) | Repeat Major | 2000-04043 | 04/01/2000 | Compliance Achieved | 03/21/2001 |
| Coliform, Total (TCR) | Routine Major | 2001-01403 | 10/01/2000 | Compliance Achieved | 03/21/2001 |
| **IA5751979 SECONDARY ROAD SHOP** | | Population: **37** | | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2001-00142 | 07/01/2000 | Compliance Achieved | 10/23/2000 |
| **IA9630303 SHERMANS WATER & ROAD, INC.** | | Population: **73** | | County: **WINNESHIEK** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02900 | 06/01/2000 | Compliance Achieved | 01/03/2001 |
| **IA9630882 SILVERCREST GOLF & COUNTRY CLUB, INC.** | | Population: **88** | | County: **WINNESHIEK** | |
| Nitrate (as N) | Routine Major | 2001-00263 | 10/01/1999 | Compliance Achieved | 11/01/2000 |
| **IA3100720 SKY LINE INN** | | Population: **40** | | County: **DUBUQUE** | |
| Coliform, Total (TCR) | Routine Major | 2000-01484 | 01/01/2000 | Compliance Achieved | 03/15/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-01536 | 02/01/2000 | Compliance Achieved | 03/15/2001 |
| Coliform, Total (TCR) | MCL (TCR), Acute | 2000-01899 | 02/01/2000 | Compliance Achieved | 03/15/2001 |
| Coliform, Total (TCR) | Non-Reported Type | 2000-04843 | 04/02/2000 | NOV issued | 08/31/2000 |
| **IA5784306 SPRING GREEN** | | Population: **52** | | County: **LINN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00040 | 10/01/2000 | NOV issued | 11/13/2000 |
| **IA5343815 ST. JOHN'S LUTHERAN CHURCH** | | Population: **62** | | County: **JONES** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03053 | 06/01/2000 | Compliance Achieved | 03/20/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03949 | 07/01/2000 | Compliance Achieved | 03/20/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04834 | 08/01/2000 | Compliance Achieved | 03/20/2001 |
| Nitrate (as N) | Routine Major | 2001-00289 | 09/01/2000 | Compliance Achieved | 11/16/2000 |
| **IA5722849 ST. PATRICK'S PARISH** | | Population: **142** | | County: **LINN** | |
| Nitrate (as N) | Routine Major | 2000-03810 | 07/01/1999 | Compliance Achieved | 09/11/2000 |
| Nitrate (as N) | Confirmation/Check Major | 2000-04934 | 07/01/2000 | Compliance Achieved | 09/11/2000 |
| **IA2279101 STRAWBERRY POINT INDUSTRIAL PARK** | | Population: **33** | | County: **CLAYTON** | |
| Nitrate (as N) | MCL, Single | 2000-01117 | 01/01/2000 | Compliance Achieved | 06/22/2000 |
| **IA3126603 SUPER 20 MOBILE HOME PARK** | | Population: **238** | | County: **DUBUQUE** | |
| Consumer Confidence Reports | CCR Report | 2001-00607 | 07/01/2000 | AO w/ Penalty | 11/29/2000 |
| **IA3126941 SWISS VALLEY NATURE CENTER** | | Population: **363** | | County: **DUBUQUE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02892 | 04/01/2000 | Compliance Achieved | 02/28/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03093 | 07/01/2000 | Compliance Achieved | 02/28/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04831 | 08/01/2000 | Compliance Achieved | 02/28/2001 |
| Coliform, Total (TCR) | Repeat Major | 2000-04885 | 08/01/2000 | Compliance Achieved | 11/30/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04886 | 08/01/2000 | Compliance Achieved | 11/30/2000 |
| **IA0732301 SYLVAN ACRES** | | Population: **44** | | County: **BREMER** | |
| Nitrate (as N) | MCL, Single | 2000-01455 | 01/01/2000 | BCA issued | 02/20/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-01553 | 03/01/2000 | BCA issued | 02/20/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02869 | 05/01/2000 | BCA issued | 02/20/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03942 | 07/01/2000 | BCA issued | 02/20/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03990 | 08/01/2000 | BCA issued | 02/20/2001 |
| Coliform, Total (TCR) | Repeat Major | 2000-04948 | 08/01/2000 | Compliance Achieved | 10/06/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04949 | 08/01/2000 | Compliance Achieved | 10/06/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04950 | 08/01/2000 | Compliance Achieved | 10/06/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA0685201 TARA HILLS COUNTRY CLUB** | | Population: **27** | | County: **BENTON** | |
| Nitrate (as N) | Routine Major | 2001-00276 | 10/01/1999 | Compliance Achieved | 11/01/2000 |
| **IA5343202 THE HEIGHTS** | | Population: **56** | | County: **JONES** | |
| Coliform, Total (TCR) | Routine Major | 2000-04984 | 08/01/2000 | Compliance Achieved | 09/18/2000 |
| **IA5715812 THE NEW SHACK TAVERN** | | Population: **70** | | County: **LINN** | |
| Nitrate (as N) | Routine Major | 2000-03838 | 07/01/1999 | Compliance Achieved | 12/29/2000 |
| **IA0398201 THE OLD ROSSVILLE STORE** | | Population: **55** | | County: **ALLAMAKEE** | |
| Coliform, Total (TCR) | Routine Major | 2000-04020 | 07/01/2000 | Compliance Achieved | 09/07/2000 |
| **IA9644201 THE OLD STORE** | | Population: **38** | | County: **WINNESHIEK** | |
| Nitrate (as N) | MCL, Single | 2000-03049 | 06/01/2000 | Compliance Achieved | 01/30/2001 |
| Nitrate (as N) | Routine Major | 2000-04997 | 08/01/2000 | Compliance Achieved | 09/11/2000 |
| Nitrate (as N) | Routine Major | 2001-01480 | 12/01/2000 | Compliance Achieved | 03/19/2001 |
| **IA0375838 THE SHANTI INC.** | | Population: **25** | | County: **ALLAMAKEE** | |
| Nitrate (as N) | Routine Major | 2000-01520 | 01/01/2000 | Compliance Achieved | 07/27/2000 |
| **IA3300770 THE SPORTSMEN** | | Population: **187** | | County: **FAYETTE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-01467 | 01/01/2000 | AO w/ Penalty | 04/01/1999 |
| Coliform, Total (TCR) | Routine Major | 2000-01859 | 02/01/2000 | Compliance Achieved | 03/01/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00002 | 09/01/2000 | BCA issued | 09/09/2001 |
| Coliform, Total (TCR) | Routine Major | 2001-01392 | 12/01/2000 | Compliance Achieved | 03/27/2001 |
| **IA9637201 THE ZIPPER** | | Population: **30** | | County: **WINNESHIEK** | |
| Coliform, Total (TCR) | Routine Major | 2000-03735 | 04/01/2000 | Compliance Achieved | 07/24/2000 |
| **IA3170335 THUNDER HILLS HOME & UTILITY ASSOC.** | | Population: **300** | | County: **DUBUQUE** | |
| Coliform, Total (TCR) | Routine Major | 2001-01251 | 11/01/2000 | Compliance Achieved | 02/15/2001 |
| **IA3126883 TIMBERLINE GOLF COURSE INC.** | | Population: **130** | | County: **DUBUQUE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02874 | 04/01/2000 | AO w/o Penalty | 09/05/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02992 | 06/01/2000 | AO w/o Penalty | 09/05/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03100 | 07/01/2000 | AO w/o Penalty | 09/05/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04009 | 08/01/2000 | AO w/o Penalty | 09/05/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04032 | 07/01/2000 | Compliance Achieved | 08/09/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04036 | 07/01/2000 | Compliance Achieved | 08/09/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00027 | 10/01/2000 | AO w/ Penalty | 09/05/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-00333 | 09/01/2000 | Compliance Achieved | 10/03/2000 |
| **IA5784310 TWIN KNOLLS 6TH ADDITION WATER SERVICE C** | | Population: **52** | | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-01873 | 02/01/2000 | Compliance Achieved | 03/21/2000 |
| **IA5784326 TWIN KNOLLS FOURTH/FIFTH ADDITION** | | Population: **144** | | County: **LINN** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-01139 | 11/01/2000 | NOV issued | 12/04/2000 |
| Coliform, Total (TCR) | Repeat Major | 2001-01187 | 11/01/2000 | Compliance Achieved | 03/06/2001 |
| **IA0300648 UPPER IOWA RESORT & RENTAL** | | Population: **27** | | County: **ALLAMAKEE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-02880 | 04/01/2000 | Compliance Achieved | 09/28/2000 |
| **IA3100610 VERDE WATER CO.-TABLE MOUND #1-WELL #2** | | Population: **342** | | County: **DUBUQUE** | |
| Coliform, Total (TCR) | Routine Major | 2001-00716 | 10/01/2000 | Compliance Achieved | 11/06/2000 |
| **IA2242786 VILLAGE INN** | | Population: **29** | | County: **CLAYTON** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03974 | 07/01/2000 | BCA issued | 08/15/2000 |
| Coliform, Total (TCR) | MCL (TCR), Acute | 2000-04010 | 07/01/2000 | BCA issued | 08/15/2000 |

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA2285055 VOLGA WATER SUPPLY** | | Population: **247** | | County: **CLAYTON** | |
| Nitrate (as N) | MCL, Single | 2000-01458 | 01/01/2000 | Compliance Achieved | 09/12/2000 |
| Nitrate (as N) | MCL, Single | 2000-01475 | 02/01/2000 | Compliance Achieved | 09/12/2000 |
| Nitrate (as N) | MCL, Single | 2000-01895 | 03/01/2000 | Compliance Achieved | 09/12/2000 |
| Gross Alpha, excluding Rn & U | Routine Major | 2000-04710 | 07/01/1996 | Compliance Achieved | 09/12/2000 |
| **IA3371056 WADENA WATER SYSTEM** | | Population: **243** | | County: **FAYETTE** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00649 | 10/01/2000 | NOV issued | 11/09/2000 |
| **IA0690201 WALFORD CITGO** | | Population: **100** | | County: **BENTON** | |
| Coliform, Total (TCR) | Routine Major | 2001-00057 | 07/01/2000 | Compliance Achieved | 10/02/2000 |
| **IA5343602 WALNUT ACRES ESTATES** | | Population: **35** | | County: **JONES** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03917 | 07/01/2000 | Compliance Achieved | 03/06/2001 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04844 | 08/01/2000 | Compliance Achieved | 03/06/2001 |
| **IA5307200 WAPSIPINICON COUNTRY CLUB** | | Population: **85** | | County: **JONES** | |
| Coliform, Total (TCR) | Routine Major | 2001-00134 | 07/01/2000 | Compliance Achieved | 10/23/2000 |
| **IA1037899 WAPSIPINICON GOLF CLUB** | | Population: **33** | | County: **BUCHANAN** | |
| Coliform, Total (TCR) | Routine Major | 2000-02162 | 04/01/2000 | Compliance Achieved | 05/01/2000 |
| **IA9630809 WASHINGTON PRAIRIE LUTHERAN CHURCH** | | Population: **35** | | County: **WINNESHIEK** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-05039 | 07/01/2000 | NOV issued | 10/16/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2001-00629 | 10/01/2000 | NOV issued | 10/30/2000 |
| **IA1074815 WEE WILLY'S** | | Population: **31** | | County: **BUCHANAN** | |
| Nitrate (as N) | Routine Major | 2000-02047 | 04/01/1999 | Compliance Achieved | 05/08/2000 |
| **IA5715601 WENDY OAKS MHP** | | Population: **41** | | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-02168 | 04/01/2000 | Compliance Achieved | 07/25/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-01419 | 12/01/2000 | Compliance Achieved | 01/05/2001 |
| Nitrate (as N) | Routine Major | 2001-01464 | 01/01/2000 | Compliance Achieved | 01/05/2001 |
| **IA5748300 WINDY RIDGE WELL ASSOCIATION** | | Population: **58** | | County: **LINN** | |
| Coliform, Total (TCR) | Routine Major | 2000-02169 | 04/01/2000 | Compliance Achieved | 07/28/2000 |
| **IA1900601 WINTER MOBILE HOME PARK** | | Population: **50** | | County: **CHICKASAW** | |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-03067 | 06/01/2000 | AO w/o Penalty | 03/30/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04028 | 06/01/2000 | Compliance Achieved | 07/27/2000 |
| Coliform, Total (TCR) | Repeat Major | 2000-04029 | 06/01/2000 | Compliance Achieved | 07/27/2000 |
| Coliform, Total (TCR) | MCL (TCR), Monthly | 2000-04852 | 08/01/2000 | AO w/o Penalty | 03/30/2000 |
| Coliform, Total (TCR) | Repeat Major | 2001-00327 | 08/01/2000 | Compliance Achieved | 10/30/2000 |
| Coliform, Total (TCR) | Repeat Major | 2001-00328 | 08/01/2000 | Compliance Achieved | 10/30/2000 |
| Coliform, Total (TCR) | Repeat Major | 2001-00329 | 08/01/2000 | Compliance Achieved | 10/30/2000 |
| Consumer Confidence Reports | CCR Report | 2001-00618 | 03/06/2000 | NOV issued | 11/02/2000 |
| Coliform, Total (TCR) | Routine Major | 2001-01248 | 11/01/2000 | Compliance Achieved | 03/30/2001 |

# *TABLE C - 1999 Orphan Violations*

| ANALYTE NAME | VIOLATION NAME | VIOLATION NUMBER | COMPLIANCE BEGIN DATE | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|
| **IA5700900 ABBE CENTER FOR COMMUNITY CARE** | | Population: **350** | | County: **LINN** | |
| Lead & Copper Rule | Routine Tap | 2000-03051 | 01/01/1999 | Compliance Achieved | 09/02/1999 |
| **IA5377727 R J'S STATION** | | Population: **31** | | County: **JONES** | |
| Nitrate (as N) | MCL, Single | 2001-00611 | 11/01/1999 | Compliance Achieved | 10/16/2000 |

These violations for 1999 were assigned after the 1999 Annual Compliance Report was generated in June 2000

# *TABLE D - Continuing Radionuclide Violations*

| ANALYTE NAME | | LAST SAMPLE DATE | | |
|---|---|---|---|---|
| **IA4910000 BELLEVUE MUNI UTILITIES** | Population: | **2350** | County: | **JACKSON** |
| RADIUM, COMBINED (226, 228) | | 01/14/1997 | | |
| **IA3317047 CLERMONT WATER SUPPLY** | Population: | **716** | County: | **FAYETTE** |
| RADIUM, ADDED (226, 228) | | 11/08/1999 | | |
| **IA1031044 HAZLETON WATER SUPPLY** | Population: | **950** | County: | **BUCHANAN** |
| RADIUM, ADDED (226, 228) | | 10/15/1999 | | |
| **IA2256041 MARQUETTE WATER SUPPLY** | Population: | **421** | County: | **CLAYTON** |
| RADIUM, COMBINED (226, 228) | | 04/29/1997 | | |
| **IA0656081 NORWAY CITY WATER SUPPLY** | Population: | **601** | County: | **BENTON** |
| RADIUM, COMBINED (226, 228) | | 01/26/1998 | | |
| GROSS ALPHA, EXCLUDING RA & U | | 01/26/1998 | | |
| **IA3126303 QUALITY WATER, INC. #2 (K-L)** | Population: | **70** | County: | **DUBUQUE** |
| RADIUM, COMBINED (226, 228) | | 04/25/1997 | | |
| **IA9630303 SHERMANS WATER & ROAD, INC.** | Population: | **73** | County: | **WINNESHIEK** |
| RADIUM, ADDED (226, 228) | | 07/27/1998 | | |
| **IA0685045 VAN HORNE WATER WORKS** | Population: | **716** | County: | **BENTON** |
| RADIUM, ADDED (226, 228) | | 06/09/1999 | | |

# *TABLE E - 2000 Lead/Copper Action Level Milestones*

| ANALYTE NAME | VIOLATION NAME | | COMPLIANCE BEGIN DATE | | ENFORCEMENT ACTION | DATE OF ACTION |
|---|---|---|---|---|---|---|
| **IA4509024** | **CHESTER WATER SUPPLY** | Population: | **151** | County: | **HOWARD** | |
| Lead | AL (Pb/Cu), 90th Percentile | | 06/01/1997 | | BCA issued | 11/22/2000 |
| **IA3346037** | **HAWKEYE WATER SUPPLY** | Population: | **489** | County: | **FAYETTE** | |
| Lead | AL (Pb/Cu), 90th Percentile | | 06/01/1997 | | BCA issued | 11/22/2000 |
| **IA1900901** | **HERITAGE RESIDENCE** | Population: | **50** | County: | **CHICKASAW** | |
| Lead | AL (Pb/Cu), 90th Percentile | | 06/01/1997 | | BCA issued | 11/22/2000 |
| **IA5751101** | **LINN COUNTY REC** | Population: | **58** | County: | **LINN** | |
| Copper | AL (Pb/Cu), 90th Percentile | | 01/01/2000 | | BCA issued | 03/27/2001 |
| **IA0990990** | **SAINTS AVENUE APARTMENTS** | Population: | **175** | County: | **BREMER** | |
| Lead | AL (Pb/Cu), 90th Percentile | | 06/01/1997 | | BCA issued | 11/22/2000 |
| **IA2279101** | **STRAWBERRY POINT INDUSTRIAL PARK** | Population: | **33** | County: | **CLAYTON** | |
| Copper | AL (Pb/Cu), 90th Percentile | | 06/01/2000 | | Compliance Achieved | 01/18/2001 |
| Lead | AL (Pb/Cu), 90th Percentile | | 06/01/2000 | | Compliance Achieved | 01/18/2001 |
| **IA3338500** | **VALLEY HIGH SCHOOL** | Population: | **585** | County: | **FAYETTE** | |
| Lead | AL (Pb/Cu), 90th Percentile | | 06/01/1997 | | BCA issued | 04/06/2001 |

# GLOSSARY of Terms

| | |
|---|---|
| < | less than |
| > | greater than |
| AG | Attorney General |
| AL | Action Level |
| AOP | Administrative Order with Penalty |
| AOWP | Administrative Order without Penalty |
| BCA | Bilateral Compliance Agreement (operation permit) |
| CCR | Consumer Confidence Report |
| CT | Contact Time of residual disinfectant |
| Cu | Chemical symbol for Copper |
| CWS | Community Water System |
| EPA | U.S. Environmental Protection Agency |
| FDA | Food and Drug Administration |
| GW | Ground Water |
| GWUI | Ground Water Under the Influence of surface water |
| HA | Health Advisory |
| HPC | Heterotrophic Plate Count |
| IAC | Iowa Administrative Code |
| IDNR | Iowa Department of Natural Resources |
| IOC | Inorganic Chemicals |
| LSL | Lead Service Line |
| MCL | Maximum Contaminant Level |
| mg/L | milligrams per liter |
| M/R | Monitoring and Reporting |
| mrem/yr | millirems per year |
| NOV | Notice of Violation |
| NTNC | Non-Transient Non-Community |
| NTU | nephelometric turbidity units |
| Pb | Chemical symbol for Lead |
| pCi/L | picocuries per liter |
| PN | Public Notification |
| PWS's | Public Water Systems |
| PWSS | Public Water System Supervision (EPA program) |
| Rn | Radon |
| SDWA | Safe Drinking Water Act |
| SDWIS/FED | Safe Drinking Water Information System/Federal (EPA's electronic database) |
| SOC | Synthetic (Nonvolatile) Organic Chemical |
| SW | Surface Water |
| SWTR | Surface Water Treatment Rule |
| TCR | Total Coliform Rule |

| | |
|---|---|
| TNC | Transient Non-Community |
| TT | Treatment Technique |
| U | Uranium |
| V/E | Variance or Exemption |
| VOC | Volatile Organic Chemical |
| WQP | Water Quality Parameters |

## For Additional Information, contact:


| | | |
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