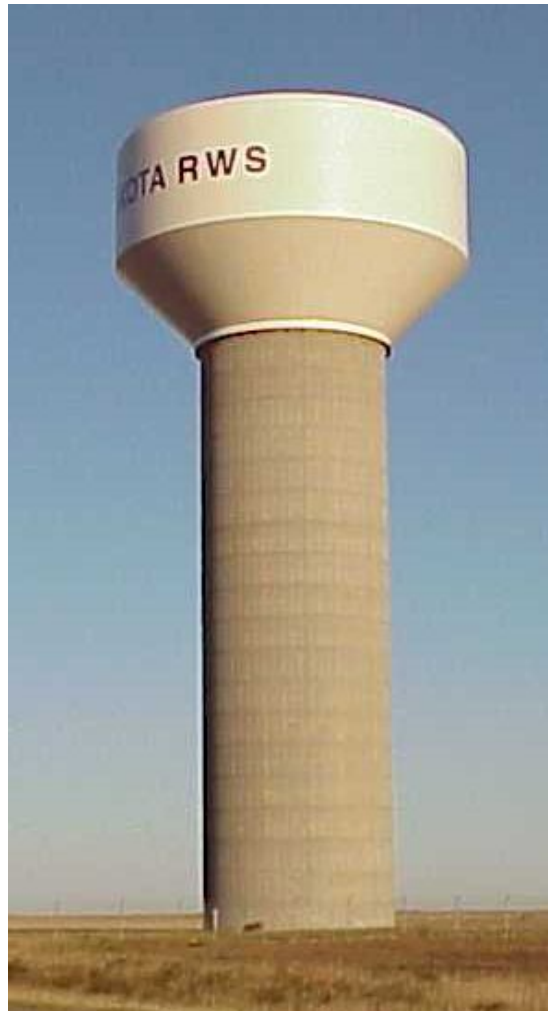


# Public Notification Handbook



## DRINKING WATER PROGRAM

Department of Environment and Natural Resources

Foss Building - Lower Level

523 East Capitol Ave.

Pierre, SD 57501-3181

Phone: (605) 773-3754



## Public Notification Handbook

The purpose of this handbook is to explain EPA's Public Notice Rule and provide specific examples of public notices. In addition to increasing the effectiveness of public notices, this handbook should make it easier for public water system owners and operators to comply with State and Federal requirements. Public notification of drinking water violations and other situations provides a means to protect public health, build trust with consumers through open and honest sharing of information, and establish an ongoing, positive relationship with the community. Public notice can also help consumers understand rate increases and support increased funding for drinking water treatment and protection.

If your water system serves at least 15 service connections or 25 people daily for at least 60 days out of the year, it is a **public water system** (PWS) and public notification will be required for violations of the State Drinking Water Standards. In South Dakota, the Department of Environment and Natural Resources (DENR) regulates drinking water systems through the Drinking Water Program (DWP). Specific requirements will differ somewhat depending on whether your system is a community public water system or a non-community public water system.

Public notification helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency). For less serious problems (e.g., a missed water test), water suppliers must notify consumers in a timely manner. Public notice requirements have always been a part of the Safe Drinking Water Act.

### Highlights of the Public Notice Requirements

- EPA and DENR specify three tiers of public notification depending on the severity of the situation. Water suppliers have from 24 hours to one year to notify their customers after a violation occurs; however, it is always best to issue your public notice as soon as possible after a violation occurs. Depending on which tier a violation situation falls into, water systems have different methods to deliver the notice.
- There is mandatory health effects language for each violation.
- For a Tier 1 violation, you must consult with the DENR within 24 hours for further public notice instructions.
- A "Certificate of Distribution" must be submitted to DENR along with a copy of each public notice within ten days of issuance.

## **Tier 1 (Immediate Notice Within 24 Hours)**

**Notice must be issued as soon as practical but must be within 24 hours via radio, TV, direct home delivery, or posting at conspicuous locations throughout system.** Radio and TV notices must be aired a minimum of three times during a 24-hour period. Postings must remain in place until the violation is resolved; however, the postings must remain in place at least seven days at a minimum. The following are violations/situations that require a Tier 1 notice-

- Acute fecal coliform/*E.coli* violations
- Nitrate, nitrite, or total nitrate/nitrite maximum contaminant level (MCL) violations
- Chlorine dioxide maximum residual detection level (MRDL) violation in distribution system
- Failure to take MRDL chlorine dioxide samples in distribution system when required
- Exceedance of maximum allowable turbidity level (single sample > 1 NTU)
- Positive triggered/assessment Groundwater Rule (GWR) samples
- Waterborne disease outbreak or other waterborne emergency
- Other violations or situations determined by the Drinking Water Program

**PWSs must also initiate consultation with the Drinking Water Program within 24 hours.** The Drinking Water Program may establish additional PN requirements above the minimum during consultation.

## **Tier 2 (Notice as Soon as Possible-Must be Within 30 Days)**

**Notice must be issued as soon as practical but must be within 30 days via mail or direct home delivery.** Repeat notice during each calendar quarter until violation is resolved. All PWSs must use additional delivery methods reasonably calculated to reach other consumers not notified by mail or direct home delivery. The following are Tier 2 violations-

- All MCL, MRDL, and treatment technique violations including-
  - Total coliforms
  - Turbidity monthly average (Not single sample turbidity exceedance)
  - Radium 226/228, Uranium, and Gross alpha
  - Failure to correct significant deficiencies/failure to maintain 4 log inactivation under the GWR
  - All inorganic chemicals including fluoride and arsenic
- Certain monitoring violations including-
  - Nitrate and nitrite
  - Turbidity
  - Microbiological repeat samples

### **Tier 3 (Annual Notice)**

**Notice must be issued as soon as practical but must be within 12 months via mail or direct home delivery.** Notice must be repeated annually for unresolved violations. Notices for individual violations can be combined into one annual notice (including the CCR) as long as all public notification requirements are met. All PWSs must use additional delivery methods reasonably calculated to reach other consumers not notified by the first method. The following are Tier 3 violations-

- Monitoring/reporting violations (unless the Drinking Water Program elevates to Tier 2)
- Special public notices such as fluoride secondary maximum contaminant level exceedance or availability of unregulated contaminant monitoring results

### **Consultation with DENR for Tier 1 Violations**

If you incur a Tier 1 Violation, you must consult with the DENR within 24 hours of learning of the violation. DENR may require additional PN requirements to better serve customers of your system.

Phone numbers to consult with DENR are 605-773-3754 Monday-Friday 8:00 am-5:00 pm Central Time. On weekends, you may call 605-280-6831. This phone number will connect you to a member of the Drinking Water Program staff. If there is no answer, leave a message, and you will be contacted.

### **Requirements for Ongoing Violations**

All new billing units and customers must be notified prior to or at the time that service begins of ongoing violations or situations requiring notice.

### **Relationship to the Consumer Confidence Report (CCR)**

Where appropriate, the public notification and CCR requirements are consistent:

- Health effects language for MCL, MRDL, and treatment technique violations are the same
- Multilingual and certification requirements are similar
- A CCR may be used to deliver a Tier 3 notification provided that public notification rule timing, content, delivery, and notice to DENR requirements are met. (Please note that some systems are not required to actually deliver an individual CCR to each customer; however, if you are going to use your CCR as a public notice, it must be individually delivered as per the Public Notice Rule.)

## Reporting and Record Keeping

- PWSs have ten days after issuance to send a “Certification of Distribution” and a copy of the completed notice to the Drinking Water Program
- PWS and the Drinking Water Program must keep notices on file for three years

## Systems Served by Other Public Water Systems

If your water system does not have its own source and is served water by another public water system such as a rural water system, you must issue a public notice to your customers if the supplying system has a violation. You must follow the same public notice rules as the originating system must follow.

### For More Information-

Drinking Water Program  
523 East Capitol Ave  
Pierre SD 57501-3181  
Phone: 605-773-3754

## General Content of Public Notices

Unless otherwise specified in the regulations, each notice must contain:\*

- 1) A description of the violation or situation, including contaminant levels if applicable
- 2) When the violation or situation occurred
- 3) Any potential adverse health effects-Standard health effects language must be used
- 4) The population at risk
- 5) Whether alternative water supplies should be used
- 6) What actions consumers should take
- 7) What the system is doing to correct the violation or situation
- 8) When the water system expects to return to compliance or resolve the situation
- 9) The name, business address, and phone number of the water system owner or operator
- 10) A statement (see below) encouraging distribution of the notice to others, where applicable

*\* These elements do not apply to notices for fluoride SMCL exceedances or availability of unregulated contaminant monitoring data. Content requirements for these notices are specified in the rule.*

### Standard Language:

*For all monitoring violations:* We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [period] we [did not monitor or test/did not complete all monitoring or testing] for [contaminant(s)] and therefore cannot be sure of the quality of the drinking water during that time.

*Standard Distribution Language for all violations:* Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

## Sample Public Notices

### Example No. 1

#### Nitrate Maximum Contaminant Level Exceeded

The nitrate level in the 1 water supply was found to be 2 milligrams per liter mg/L when tested. This notice is to inform the public that the 1 drinking water nitrate level is in excess of the maximum contaminant level (MCL) for nitrate, which is 10 mg/L. This sample was analyzed on 3.

The State of South Dakota and the United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nitrate poses an acute health concern at certain levels of exposure. **Do not give the water to infants.** Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome. Blue baby syndrome is indicated by blueness of the skin. Symptoms in infants can develop rapidly, with health deteriorating over a period of days. If symptoms occur, seek medical attention immediately.

**Do not boil the water.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated because nitrates remain behind when the water evaporates. Adults and children older than six months can drink the tap water (nitrate is a concern for infants because they cannot process nitrates in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor. Water, juice, and formula for children less than six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants.

We are taking the following actions in an effort to correct this problem-\_\_\_\_\_

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For additional information, please contact 4.

- 
1. Insert your system's name.
  2. Insert the level of nitrate in the water supply.
  3. Insert the date the analysis was performed.
  4. Insert the name, address, and telephone number of a contact person representing your public water system.

## Example No. 2

### Total Coliform Standard Exceeded

1 has exceeded the total coliform standard during the month of 2. 1 had 3 total coliform positive samples this month.

This is not an emergency. If it had been, you would have been notified immediately. Total coliform bacteria are generally not harmful themselves. The State of South Dakota and the United States Environmental Protection Agency (EPA) set drinking water standards and have determined that the presence of total coliforms is a possible health concern. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria MAY be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Usually coliforms are a sign that there could be a problem with the treatment or distribution system. Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. We did not find any of these bacteria in our subsequent testing. If we had, we would have notified you immediately.

You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor. People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 800-426-4791.

1 is taking the following actions to correct this problem- 4

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For additional information, please contact 5.

- 
1. Insert your system's name.
  2. Insert the month and year of the exceedance.
  3. Insert the number of total positive coliform samples.
  4. Possible corrective actions you may take include-
    - Installation of a continuous chlorinator
    - Batch chlorinating the water system
    - Increasing the coliform sampling
    - Investigating the source of the contamination
    - Flushing of main lines
    - Increase chlorine levels
  5. Insert the name, address, and telephone number of a contact person representing your public water system.

### Example No. 3

#### 1 Fails to Monitor Water for Total Coliform

1 is required to submit 2 drinking water samples per month to be analyzed for total coliform bacteria. No sample was submitted during 3.

The State of South Dakota and the US Environmental Protection Agency (EPA) set drinking water standards and have determined that the presence of total coliforms is a possible health concern. Total coliforms are common in the environment and are generally not harmful themselves. Coliforms are used as an indicator that other, potentially harmful, bacteria MAY be present.

A water system is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 3 we did not monitor for coliform bacteria and therefore cannot be sure of the quality of the drinking water during that time.

1 is taking the following actions to correct this problem- 4

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For additional information, please contact 5.

- 
1. Insert your system's name.
  2. Insert the number of drinking water samples required per month.
  3. Insert the month and year your system failed to monitor.
  4. Possible corrective actions you may take include-
    - We have since taken the required sample(s). The samples showed that we are meeting the standards.
    - We have taken additional measures within the water system administration to be sure that samples are taken properly in the future.
    - The proper number of samples was taken in the following month and we are now back into compliance with the sampling regulations.
  5. Insert the name, address, and telephone number of a contact person representing your public water system.

Please note that Paragraph One of the above notice may be altered depending on the type of failure to monitor violation that occurred at your system. The example above illustrates when no routine samples have been submitted. Other types of failure to monitor violations include-

- Some, but not all, routine samples are submitted.
- No repeat samples are submitted.
- Some, but not all, repeat samples are submitted.

## Example No. 4

### *E. coli* Drinking Water Standard Exceeded

1 has exceeded the *E. coli* standard during the month of 2. These bacteria in drinking water can make you sick and are a particular concern for people with weakened immune systems.

The State of South Dakota and the United States Environmental Protection Agency (EPA) set drinking water standards and have determined that the presence of fecal coliforms or *E. coli* is a serious health concern. *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

The symptoms above are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice about drinking water from their health care providers.

**DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation **until further notice**. Boiling kills bacteria and other organisms in the water.

Bacterial contamination can occur when increased run-off enters the drinking water source (for example, following heavy rains). It can also happen due to a break in the distribution system or a failure in the water treatment process.

1 is taking the following actions to correct this problem- 3

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For additional information, please contact 4.

- 
1. Insert your system's name.
  2. Insert the month and year your system exceeded the coliform standard.
  3. Possible corrective actions you may take include-
    - Installation of a continuous chlorinator
    - Batch chlorinating the water system
    - Increasing the coliform sampling
    - Investigating the source of the contamination
    - Increase chlorine levels
    - Flushing of main lines
  4. Insert the name, address, and telephone number of a contact person representing your public water system.

## Example No. 5

### Fluoride Maximum Contaminant Level (MCL) Violation

The State of South Dakota and the United States Environmental Protection Agency (EPA) require that we send you this notice on the level of fluoride in your drinking water. The 1 water system has a fluoride level of 2 milligrams per liter (mg/L).

**Children under the age of nine should use an alternative source of water that is low in fluoride.** In addition, you may want to consult your dentist about whether to avoid dental products containing fluoride. Adults and children over age nine should consult their dentist or doctor and show him/her this notice to determine if an alternate source of water low in fluoride should be used.

This is not an emergency. If it had been, you would have been notified immediately. Fluoride in small amounts helps prevent tooth decay. However, some people who drink water containing fluoride in excess of the maximum contaminant level (MCL) over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or greater may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Although it takes many years of exposure to fluoride for bone disease to develop, mottling can occur after a relatively short period of exposure. Fluoride contamination is rarely due to human activity. Fluoride occurs naturally in some areas and is found in high concentrations in our source water.

1 is taking the following actions to correct this problem- 3

We are required to notify users of the drinking water system every three months of this violation as long as this condition exists.

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For further information, please contact 4 at your water system.

- 
1. Insert name of water system.
  2. Insert your fluoride level from the most recent compliance monitoring.
  3. Possible corrective actions you may take include-
    - Connection to a regional water system
    - Treatment of the present source(s)
    - Development of a new source
  4. Insert the name, address, and telephone number of a contact person representing your public water system.

**Please note that this notice is for water systems with the fluoride level greater than 4.0 mg/l. If your system has a fluoride level between 2.0 and 4.0 mg/l, please see page 13.**

## Example No. 6

### Radium Maximum Contaminant Level (MCL) Violation

1 drinking water supply violates the radium 226-228 standard of the South Dakota Drinking Water Standards. The maximum contaminant level for radium 226-228 is 5.0 picocuries per liter (pCi/L), and the average level of radium 226-228 during the past year was 2 pCi/L.

Radium 226-228 occurs naturally in the water. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer. You do not need to use an alternative water supply such as bottled water; however, if you have specific health concerns, consult your doctor. This is not an immediate risk. If it had been, you would have been notified immediately.

1 is taking the following actions to correct this problem- 3 .

We are required to notify users of the drinking water system every three months of this violation as long as this condition exists.

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For further information, please contact 4 at your water system.

- 
1. Insert your system's name.
  2. Insert the radium 226-228 level for the past year.
  3. Possible corrective actions you may take include-
    - Connection to a regional water system
    - Treatment of the present source(s)
    - Development of a new source
  4. Insert the name, address, and telephone number of a contact person representing your public water system.

## Example No. 7

### 1 Fails to Monitor Lead and Copper

1 is required to submit 2 tap water samples per monitoring period to be analyzed for lead and copper. No samples were submitted for the 3 monitoring period.

The State of South Dakota and the US Environmental Protection Agency (EPA) set drinking water standards and have determined that the presence of excess lead and copper in drinking water is normally the result of corrosive action of water on plumbing materials such as pipes, fittings and solder. Human studies have demonstrated that pregnant women, infants and young children are more susceptible than adults to the biochemical effects of lead. Excessive lead intake results primarily in adverse effects on gastrointestinal, nervous, renal and immunological systems. Of major concern are the reported subtle effects of lead on behavior in infants and young children. In addition to drinking water, primary sources of exposure include food air, dust and paint. Copper is an essential nutrient, but at high doses it has been shown to cause stomach and intestinal distress, liver and kidney damage, and anemia. People with Wilson's Disease may be at a higher risk of health effects due to copper than the general public.

A water system is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 3 we did not monitor for lead and copper and therefore cannot be sure of the quality of the drinking water during that time.

1 is taking the following actions to correct this problem- 4.

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For additional information, please contact 5.

- 
1. Insert your system's name.
  2. Insert the number of tap samples required.
  3. Insert the monitoring period your system failed to monitor for lead and copper.
  4. Possible corrective actions you may take include-
    - We have since taken the required sample(s). The samples showed that we are meeting the standards.
    - We have taken additional measures within the water system administration to be sure that samples are taken properly in the future.
  5. Insert the name, address, and telephone number of a contact person representing your public water system.

## Example No. 8

### 1 Exceeds Water Turbidity Limits

1 has exceeded the turbidity requirements of the Surface Water Treatment Rule (SWTR) during 2. Turbidity is a measure of suspended matter in water. The SWTR allows 5% of all turbidity readings for a month to exceed the turbidity limit while 1 had 3 % of the readings exceed during 2. The turbidity levels are relatively low; however, their persistence is of concern.

The United States Environmental Protection Agency (EPA) and the State of South Dakota have set enforceable requirements for treating drinking water to reduce the risk of adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. These symptoms are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**You do not need to boil your water or take other actions.** We do not know of any contamination, and none of our testing has shown disease-causing organisms in the drinking water. People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers.

A problem has occurred with the treatment system at the water plant. 1 is taking the following actions to correct this problem- 4

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For additional information, please contact 5.

- 
1. Insert your system's name.
  2. Insert the name of the month that the turbidity requirements were exceeded.
  3. Insert the percent of turbidity readings that exceeded the standard.
  4. Possible corrective actions you may take include-
    - Made chemical adjustment to reduce turbidity levels.
    - Adjusted chlorine levels to compensate for filtration problems.
    - Called in consultants for technical assistance on the filtration problems.
  5. Insert the name, address, and telephone number of a contact person representing your public water system.

## Example No. 9

### Fluoride in Your Drinking Water

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by   1   has a fluoride concentration of   2   mg/l.

Dental fluorosis in its moderate or severe forms may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/l of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we are required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem.

Some home water treatment units are also available to remove fluoride from drinking water.

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For further information, please contact   3   at your water system.

- 
1. Insert name of water system.
  2. Insert your fluoride level from the most recent compliance monitoring.
  3. Insert the name, address, and telephone number of a contact person representing your public water system.

**Please note that this notice is for water systems with fluoride levels between 2.0 and 4.0 mg/l. If your system has a fluoride level greater than 4.0 mg/l, please see page 9.**

## Example No. 10

### Gross Alpha Maximum Contaminant Level (MCL) Violation

1 drinking water supply violates the gross alpha standard of the South Dakota Drinking Water Standards. The maximum contaminant level for gross alpha is 15.0 picocuries per liter (pCi/L), and the average level of gross alpha during the past year was 2 pCi/L.

Gross alpha occurs naturally in the water. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. You do not need to use an alternative water supply such as bottled water; however, if you have specific health concerns, consult your doctor. This is not an immediate risk. If it had been, you would have been notified immediately.

1 is taking the following actions to correct this problem- 3

We are required to notify users of the drinking water system every three months of this violation as long as this condition exists.

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For further information, please contact 4 at your water system.

- 
1. Insert your system's name.
  2. Insert the gross alpha level for the past year.
  3. Possible corrective actions you may take include-
    - Connection to a regional water system
    - Treatment of the present source(s)
    - Development of a new source
  4. Insert the name, address, and telephone number of a contact person representing your public water system.

## Example No. 11

### Arsenic Maximum Contaminant Level (MCL) Violation

1 drinking water supply violates the arsenic standard of the South Dakota Drinking Water Standards. The maximum contaminant level for arsenic is 10 micrograms per liter (ug/l), and the running annual average for arsenic during the past year was 2 ug/l.

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. You do not need to use an alternative water supply such as bottled water; however, if you have specific health concerns, consult your doctor. This is not an immediate risk. If it had been, you would have been notified immediately.

1 is taking the following actions to correct this problem- 3

We are required to notify users of the drinking water system every calendar quarter of this violation as long as this condition exists.

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For further information, please contact 4 at your water system.

- 
1. Insert your system's name.
  2. Insert the arsenic running annual average for the past year.
  3. Possible corrective actions you may take include-
    - Connection to a regional water system
    - Treatment of the present source(s)
    - Development of a new source
  4. Insert the name, address, and telephone number of a contact person representing your public water system.

## Example No. 12

### Generic Failure to Monitor Notice

1 Fails to Monitor for 2

1 is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 3, we did not monitor for 2 and therefore cannot be sure of the quality of the drinking water during that time.

1 is taking the following actions to correct this problem- 4

Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For additional information, please contact 5.

- 
1. Insert your system's name.
  2. Insert the chemical that was supposed to have been monitored.
  3. Insert the monitoring period your system failed to monitor.
  4. Possible corrective actions you may take include-
    - We have since taken the required sample(s). The samples showed that we are meeting the standards.
    - We have taken additional measures within the water system administration to be sure that samples are taken properly in the future.
  5. Insert the name, address, and telephone number of a contact person representing your public water system.

**RECOMMENDED PROCEDURE FOR CHLORINE DISINFECTION OF SPRING BOX,  
ELEVATED STORAGE, GROUND RESERVOIR, CISTERN, WATER TREATMENT PLAN BASIN**

**Introduction**

A ground reservoir, elevated tank, spring box, cistern, or water treatment plant basin should be thoroughly cleaned and then disinfected with a strong chlorine solution after:

1. ORIGINAL CONSTRUCTION
2. ANY REPAIR OR MAINTENANCE
3. FLOODING
4. A PERIOD OF NON-USE
5. TWO OR MORE "UNSAFE" BACTERIOLOGICAL WATER SAMPLES ARE TRACED TO THE WELL

Adequate chlorine requires a certain chlorine dosage for a minimum contact time - 100 parts per million for 2 hours, or 50 parts per million for 8 hours, or 25 parts per million for 24 hours.

Chlorine for disinfection for these water systems can be either 5.25% sodium hypochlorite solution or 65% calcium hypochlorite powder. A 5.25% hypochlorite solution is common house-hold bleach such "Hilex", "Clorox", or "Purex" available at grocery stores and supermarkets. The 65% calcium hypochlorite powder is available from chemical supply houses and is known commercially as "HTH", "Perchloron", or "Pittchlor".

**Recommended Procedures**

1. The unit to be disinfected should be full of water.
2. Determine recommended chlorine disinfection dosage for the desired contact time from the following table:

AMOUNT OF CHLORINE NECESSARY FOR DOSAGE AND TIME COMBINATIONS													
Volume of Box, Basin, Reservoir or Cistern		5.25% Sodium Hypochlorite (Bleach)						65% Calcium Hypochlorite					
		100 ppm* for 2 hrs		50 ppm* for 8 hrs		25 ppm* for 24 hrs		100 ppm* for 2 hrs		50 ppm* for 8 hrs		25 ppm* for 24 hours	
50	gal	1½	cups	¾	cup	¾	cup	---	--	---	--	---	--
100	gal	3	cups	1½	cups	¾	cup	---	--	---	--	---	--
200	gal	6	cups	3	cups	1½	cups	---	--	---	--	---	--
500	gal	1	gal	7½	cups	3 ¾	cups	9½	oz	---	--	---	--
1,000	gal	2	gals	1	gal	7½	cups	1 lb 3 oz	oz	9½	oz	---	--
2,000	gal	4	gals	2	gals	1	gal	2 lb 6 oz	lbs	1 lb 3 oz	oz	9½	oz
5,000	gal	--	--	5	gals	2½	gals	6	lbs	3	lbs	1 lb 8 oz	oz
10,000	gal	--	--	---	--	5	gals	12	lbs	6	lbs	3	lbs
20,000	gal	--	--	---	--	---	--	24	lbs	12	lbs	6	lbs
50,000	gal	--	--	---	--	---	--	60	lbs	30	lbs	15	lbs
100,000	gal	--	--	---	--	---	--	120	lbs	60	lbs	30	lbs

\* ppm = parts per million

3. Completely mix the chlorine dosage throughout the unit to be disinfected.
4. Leave the chlorine solution in the unit for the recommended contact time.
5. Do not use the heavily chlorinated water.
6. At the end of the contact time, remove the water from the unit and discharge to waste. **DO NOT ALLOW THE WATER TO ENTER A RIVER, LAKE, OR STREAM.**
7. Fill the unit with clean water and collect a water sample for bacteriological testing after one or two days of use.

**RECOMMENDED PROCEDURE FOR CHLORINE DISINFECTION OF WATER WELLS**  
 (Reference - AWWA A100-6, Standard for Deep Wells)

Introduction

A water well should be thoroughly cleaned and disinfected with a strong chlorine solution after:

- |                              |  |
|------------------------------|--|
| 1. ORIGINAL CONSTRUCTION     | 4. A PERIOD OF NON-USE   |
| 2. ANY REPAIR OR MAINTENANCE | 5. "UNSAFE" BACTERIOLOGICAL WATER SAMPLES ARE TRACED TO THE WELL |
| 3. FLOODING                  |  |

Adequate chlorine requires a certain chlorine dosage for a minimum contact time - 100 parts per million for 2 hours, or 50 parts per million for 8 hours, or 25 parts per million for 24 hours.

Chlorine for disinfection for these water systems can be either 5.25% sodium hypochlorite solution or 65% calcium hypochlorite powder. A 5.25% hypochlorite solution is common house-hold bleach such "Hilex", "Clorox", or "Purex" available at grocery stores and supermarkets. The 65% calcium hypochlorite powder is available from chemical supply houses and is known commercially as "HTH", "Perchloron", or "Pittchlor".

Recommended Procedures

- Determine the chlorine dosage for the desired contact time from the following table:

AMOUNT OF CHLORINE NECESSARY PER 10 FEET OF WATER IN WELL													
Inside diameter of well casing		5.25% Sodium Hypochlorite (Bleach)						65% Calcium Hypochlorite					
		100 ppm* for 2 hrs		50 ppm* for 8 hrs		25 ppm* for 24 hrs		100 ppm* for 2 hrs		50 ppm* for 8 hrs		25 ppm* for 24 hrs	
1¼	inches	1/8	fl oz	---	--	---	--	---	--	---	--	---	--
2	inches	1/2	fl oz	1/4	fl oz	1/8	fl oz	---	--	---	--	---	--
3	inches	1	fl oz	1/2	fl oz	¼	fl oz	---	--	---	--	---	--
4	inches	1½	fl oz	¾	fl oz	3/8	fl oz	---	--	---	--	---	--
6	inches	4	fl oz	2	fl oz	1	fl oz	1/4	oz	1/8	oz	1/16	oz
8	inches	7	fl oz	3½	fl oz	1 ¾	fl oz	1/2	oz	1/4	oz	1/8	oz
10	inches	10	fl oz	5	fl oz	2	fl oz	¾	oz	¾	oz	3/16	oz
12	inches	2	cups	1	cup	½	cup	1	oz	1/2	oz	1/4	oz
18	inches	4½	cups	2¼	cups	1 1/8	cups	2½	oz	1¼	oz	5/7	oz
24	inches	7½	cups	3 ¾	cups	1 7/8	cups	4½	oz	2¼	oz	1 1/8	oz
36	inches	17½	cups	8 ¾	cups	4 3/8	cups	10	oz	5	oz	2½	oz

\* ppm = parts per million 1 heaping tablespoon of 65% chlorine powder = 1/2 oz. 8 fluid ounces = 1 cup

- Prepare a chlorine solution, lift well pump, and pour the chlorine solution into the well.
- Lower the pump and operate until a chlorine odor is noticed at all discharge points.
- Leave the chlorine solution in the unit for the recommended contact time. Do not use the water.
- At the end of the contact time, pump the well to waste until the chlorine odor cannot be detected. **DO NOT ALLOW THE WATER TO ENTER A RIVER, LAKE, OR STREAM.**
- Pump the well for considerable period of time and collect a bacteriological water sample and submit it for testing.

## Certificate of Public Notice Distribution

Public water systems must submit a copy of this certificate as well as a copy of each public notice within ten days of issuance.

PWS Name- \_\_\_\_\_

PWS ID#- \_\_\_\_\_

Violation- \_\_\_\_\_

Occurring on- \_\_\_\_\_

I affirm that the attached public notice has been provided to consumers in accordance with the Public Notice Regulations. The public notice was distributed by the following method(s)-**[Please check as appropriate]**

Community water systems must use one of the following methods for their notice-

- \*TV Station (Name and Location) \_\_\_\_\_
- \*Radio Station (Name and Location) \_\_\_\_\_
- Home Hand Delivery
- Individual Customer Mailing
- Included as part of a mailed or delivered Consumer Confidence Report

Community water systems may also use one of the following methods in addition to the above-

- Posting at Numerous Locations Throughout System-Please indicate number of postings \_\_\_\_\_
- Other-Please indicate method \_\_\_\_\_

Date of Notice Distribution/Issuance \_\_\_\_\_

\*TV and radio are generally used for Tier 1 notices only.

I will also supply this notice to all new billing units or new customers prior to or at the time service begins if this violation continues.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date