

# Requirements for Facilities and Buildings with Drinking Water Secondary Treatment

## DRINKING WATER PROTECTION GUIDANCE

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## Requirements for Facilities or Buildings with Drinking Water Secondary Treatment

This guidance clarifies requirements for facilities or buildings that are supplied with water from a regulated public water supply (PWS) and install drinking water treatment. This type of installation will be referred to as secondary treatment. Examples of facilities potentially affected by this guidance include hospitals, nursing homes, extended care facilities and other buildings with large plumbing systems.

This guidance does not establish new regulation. This guidance clarifies the application of existing rules found at 40 CFR 141 National Primary Drinking Water Regulations and adopted by reference at Minnesota Rules 4720.0350.

## Federal Definition of a Public Water Supply (PWS)

The U.S. Environmental Protection Agency (EPA) defines a PWS as a system that provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or regularly serves an average of at least 25 people for at least 60 days a year (40 CFR 141.2). A consecutive water system is a PWS that buys or otherwise receives some or all of its finished water from a wholesale system. A wholesale system is a PWS that supplies finished water to one or more other PWS.

## Exemptions

Facilities with secondary treatment involving the addition of chemicals do not meet the criteria for exemption from national primary drinking water regulations, as described below.

The EPA has established an exemption process in Title XIV of the Public Health Service Act whereby facilities are not considered PWSs under certain circumstances. The intent was to ensure that resources are targeted to provide the highest degree of public health protection by removing facilities that will not benefit from additional individual regulation under the SDWA. There are four criteria for determining if an exemption is appropriate.

The national primary drinking water regulations do not apply (40 CFR 141.3) to a PWS which:

1. Consists only of distribution and storage facilities (and does not have any collection and treatment facilities);
2. Obtains all of its water from, but is not owned or operated by, a public water system to which such regulations apply;
3. Does not sell water to any person; **and**
4. Is not a carrier which conveys passengers in interstate commerce.

Facilities with secondary treatment involving the addition of chemicals are not exempt because they have treatment facilities.

## Facilities Installing Drinking Water Secondary Treatment Will be Regulated as Public Water Supplies

Any facility with secondary treatment types listed in the “Types of Secondary Treatment Subject to this Guidance” section will be regulated as a PWS, consecutive system.

- If the facility serves 25 or more people that live at the facility for more than six months of the year, the facility will be classified as a community PWS.

## REQUIREMENTS FOR FACILITIES AND BUILDINGS WITH DRINKING WATER SECONDARY TREATMENT

- If the facility serves 25 or more of the same people for more than six months of the year, but the people do not live at the facility, the facility will be classified as a nontransient noncommunity PWS.
- If the facility serves 25 or more different people for more than 60 days of the year, the facility will be classified as a transient noncommunity PWS.

### **Types of Secondary Treatment Subject to this Guidance**

The following types of treatment involving the addition of chemicals will result in a facility being regulated as a PWS. Treatment must be applied for more than 60 days per year. The days do not have to be consecutive.

- Chlorine – Sodium hypochlorite, calcium hypochlorite or gas
- Chloramines – Chlorine combined with ammonia
- Chlorine Dioxide
- Ozone

These types of treatment have established monitoring requirements. They may change the water chemistry and/or create contaminants. These contaminants have the potential to exceed a maximum contaminant level (MCL), which is the maximum level of a contaminant allowed under the Safe Drinking Water Act (SDWA).

Treatment systems must be designed, installed and operated according to established standards. All chemical treatment installations must be approved by the Minnesota Department of Health, Drinking Water Protection Section (MDH DWP). MDH DWP will evaluate new treatment technologies based on NSF/ANSI certification, drinking water design standards and proven effectiveness for drinking water applications. This includes package type applications.

### **Exceptions to This Guidance**

Water treated with shock chlorination is not considered potable water and is not subject to this guidance.

Secondary treatment applied only to the building hot water system will not be regulated under this guidance, however, the installation of any secondary treatment system to a building hot water system or to any other building water supply system that is not regulated by this guidance must conform with the requirements of the Minnesota Plumbing Code, Chapter 4714. Contact the Minnesota Department of Labor and Industry for their requirements.

### **Highlighted Requirements for Consecutive PWSs**

## Plan Review

The facility must submit a complete set of construction plans and specifications for the secondary treatment to the each of the following authorities before installation:

- MDH DWP for review and approval prior to installation for compliance with federal regulations, state rules for Public Water Supplies (Chapter 4720), MDH policies and design standards for water works. Visit [About Plan Review](https://www.health.state.mn.us/communities/environment/water/planreview/index.html) (<https://www.health.state.mn.us/communities/environment/water/planreview/index.html>) for more information.
- The Minnesota Department of Labor and Industry (DLI) for plumbing review and approval prior to installation for compliance with the Minnesota Plumbing Code, Chapter 4714. All work must be performed by authorized licensed contractors. Visit [Building Plan Review](http://www.dli.mn.gov/business/get-licenses-and-permits/building-plan-review) (<http://www.dli.mn.gov/business/get-licenses-and-permits/building-plan-review>) for more information.
- Health care facilities licensed by the State of Minnesota must consult with the Minnesota Department of Health, Health Regulation Division for their licensing and certification requirements.

No changes to treatment are allowed to a PWS without prior approval from MDH DWP (Minn. Rules 4720.0010).

## Inspection of Secondary Treatment Installations

MDH DWP and appropriate plumbing authorities will conduct final inspections of all secondary treatment equipment installations at a consecutive PWS. For community public water systems, a DWP district engineer will complete the inspection. For noncommunity public water systems, a DWP noncommunity plan review engineer will complete the inspection. For contact information, visit [Drinking Water Protection Contacts](https://www.health.state.mn.us/communities/environment/water/org/index.htm) (<https://www.health.state.mn.us/communities/environment/water/org/index.htm>).

DLI Plumbing regional inspectors will perform inspections of all secondary drinking water treatment systems for all licensed health care facilities. DLI plumbing inspectors, or local authorities having jurisdiction over the plumbing code, will inspect other secondary drinking water treatment systems. For plumbing inspection permits and contact information, visit [Plumbing Inspections](https://www.dli.mn.gov/business/plumbing-contractors/plumbing-inspections) (<https://www.dli.mn.gov/business/plumbing-contractors/plumbing-inspections>).

## Monitoring and Reporting

All monitoring requirements of the SDWA 40 CFR 141.29 apply to a consecutive PWS unless the state provides for a modified schedule. It is assumed that water entering the facility from the PWS wholesaler meets all SDWA standards. As such, monitoring and sampling by the consecutive PWS will be related to the secondary treatment only.

## REQUIREMENTS FOR FACILITIES AND BUILDINGS WITH DRINKING WATER SECONDARY TREATMENT

The facility will be responsible for monitoring the cold water system for water quality parameters identified by MDH DWP compliance staff. These parameters are based on the type of secondary treatment installation, the type of PWS, and the population size. Monitoring will include sampling for:

- Bacteria
- Lead and copper
- Chemical residuals
- Any contaminant with a National Primary Drinking Water Regulation standard maximum contaminant level (MCL) that may be created by installation of the secondary treatment.

Chlorine treatment may result in required monitoring for:

- Chlorine residual
- Disinfection byproducts

Chloramine treatment may result in required monitoring for:

- Total chlorine residual
- Disinfection byproducts

Chlorine dioxide treatment may result in required monitoring for:

- Chlorine dioxide
- Chlorite

Ozone treatment may result in required monitoring for:

- Bromate

MDH may recommend additional monitoring parameters. Monitoring frequencies and schedules will follow existing state and federal rules and guidelines. The facility must keep monitoring reports and submit them to MDH as required.

### DWP Inspection

A consecutive PWS is subject to sanitary survey inspections by MDH DWP staff. Frequency of these inspections:

- Noncommunity PWSs: Every 3 years
- Community PWSs: Every 18 months

Inspections will include the treatment equipment, backflow prevention devices related to this equipment, and sampling as indicated by type of installation and at the discretion of MDH DWP.

## Certified Water Operator

A consecutive PWS is required to employ or contract with a water operator certified at the appropriate classification in accordance with Minnesota Rules 9400.0700.

## Consumer Confidence Report

A consecutive community PWS is required to provide a Consumer Confidence Report to consumers of its drinking water by July 1 of each year. A draft report is created by MDH DWP and provided to the PWS yearly by April 1.

## Public Notice

A consecutive PWS must provide public notice, including drinking water advisories, when required according to state and federal rules.

## Revisions to Guidance

This guidance may be revised according to future state or federal rule change. Revision may also occur based on new guidance provided by EPA or the Association of State Drinking Water Administrator workgroups, whose members may include states, EPA, the Centers for Disease Control and Prevention, and related professional organizations.

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*To obtain this information in a different format, call 651-201-4700.*