

ENVIRONMENTAL PROTECTION COMMISSION[567]

Regulatory Analysis

Notice of Intended Action to be published: Iowa Administrative Code 567—Chapters 40 and 42
“Scope of Division, Definitions, Forms, Public Notice and Education, Consumer Confidence Reports,
Reporting, and Record Maintenance”

Iowa Code section(s) or chapter(s) authorizing rulemaking: 455B.103(2), 455B.105(3),
455B.173(3), and 455B.173(5)

State or federal law(s) implemented by the rulemaking: Iowa Code sections 455B.171 through
455B.188, Iowa Code sections 455B.190 through 455B.192, and the federal Safe Drinking Water Act
(SDWA) as amended (42 U.S.C. §300f et seq.)

Public Hearing

A public hearing at which persons may present their views orally or in writing will be held as
follows:

September 24, 2024
10 to 11 a.m.

Virtual via Zoom
Contact Carmily Stone at
carmily.stone@dnr.iowa.gov
for meeting information

Public Comment

Any interested person may submit written comments concerning this Regulatory Analysis. Written
comments in response to this Regulatory Analysis must be received by the Department of Natural
Resources (Department) no later than 4:30 p.m. on the date of the public hearing. Comments should be
directed to:

Carmily Stone
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321
Email: carmily.stone@dnr.iowa.gov

Purpose and Summary

Proposed Chapter 40 establishes the rules of practice for the Department’s administration of the
water supply programs in the State and provides definitions used in the administration of those
programs. The programs with definitions included in proposed Chapter 40 include the public water
supply program (including SDWA implementation), the private well program, the water use and
allocation program, the water supply and well contractor operator certification programs, the drinking
water laboratory certification program, the Drinking Water State Revolving Fund loan program, the
water supply construction standards, and the water supply construction permitting program.

Existing Chapters 40 and 42 were reviewed and edited consistent with Executive Order 10.
Accordingly, new Chapter 40 incorporates rule language from existing Chapter 42, which is proposed
to be rescinded. This includes rules for the public water system supervision program related to public
notice, public education, consumer confidence reports, reporting, and record maintenance, all of which
are necessary elements of the SDWA.

Analysis of Impact

1. Persons affected by the proposed rulemaking:
 - Classes of persons that will bear the costs of the proposed rulemaking:

Public water supply systems, water use permit holders, private well owners, well contractors, water supply system operators, and consulting engineering firms will bear the costs.

- Classes of persons that will benefit from the proposed rulemaking:

Citizens of Iowa, public water supply systems, water use permit holders, private well owners, well contractors, water supply system operators, and consulting engineering firms will benefit.

2. Impact of the proposed rulemaking, economic or otherwise, including the nature and amount of all the different kinds of costs that would be incurred:

- Quantitative description of impact:

There are no direct costs associated with the requirements in Chapter 40.

Costs associated with Chapter 40 are limited to certain application procedures and recordkeeping costs associated with the public water supply program, the drinking water laboratory certification program, the Drinking Water State Revolving Fund loan program, and the water supply construction permitting program. Fees associated with these programs are covered in the program-specific chapters.

Additionally, public water supply systems will incur costs to conduct required public notice and education, to produce and publish consumer confidence reports annually, and to meet monitoring and reporting requirements as set forth in Chapter 40. These costs vary from public water supply system to public water supply system.

- Qualitative description of impact:

The new Chapter 40 is expected to have a neutral impact since the State has implemented water supply programs for several decades and the SDWA has been implemented in Iowa for nearly 50 years.

Through implementation of Chapter 40, public health is protected through enforcement of the SDWA that is managed by a public water system supervision program, the administration of public and private water supply infrastructure permitting programs and the establishment of construction standards, the administration of a water use and allocation program and of laboratory and operator certification programs, and the implementation of a Drinking Water State Revolving Fund loan program.

The State of Iowa's primacy to enforce the SDWA allows for the Department, rather than the Environmental Protection Agency (EPA), to be the primary agency to implement public water system requirements in Iowa and to provide appropriate, locally tailored assistance and outreach to the regulated entities. Stakeholders prefer to work with the Department rather than EPA to meet SDWA requirements.

In 2023, 99.5 percent of the population in Iowa served by public water supply systems (3.05 million out of 3.07 million) regularly received water meeting all health-based drinking water standards in the SDWA.

3. Costs to the State:

- Implementation and enforcement costs borne by the agency or any other agency:

Costs to the agency to implement Chapter 40 include staff time and salaries to administer the public water supply program (including SDWA implementation), the private well program, the water use and allocation program, the water supply and well contractor operator certification programs, the drinking water laboratory certification program, the Drinking Water State Revolving Fund loan program, the water supply construction standards, and the water supply construction permitting program. Additional costs include necessary information technology costs, such as development and maintenance of applications and programs used to administer the rules.

It should be noted that with primacy for enforcing the SDWA in Iowa and administration of a Drinking Water State Revolving Fund program, the Department secures certain federal grants that offset costs associated with administration of the associated programs that administer the rules. Some program costs are offset by fees collected per other chapters.

- Anticipated effect on state revenues:

A neutral impact on state revenues is expected because these rules were previously in effect. Costs to the agency are necessary for administration of the water supply programs and are largely offset by federal grant funding and fees collected pursuant to other rules as authorized by the Iowa Code.

4. Comparison of the costs and benefits of the proposed rulemaking to the costs and benefits of inaction:

Costs to the regulated public are limited to those required to comply with federal and state law and are reasonable and fair. Costs to the agency are necessary for administration of the programs discussed and are largely offset by federal grant funding.

Public health is protected through the enforcement of the SDWA that is managed by a public water system supervision program, the administration of public and private water supply infrastructure permitting programs and the establishment of construction standards, the administration of a water use and allocation program and of laboratory and operator certification programs, and the implementation of a Drinking Water State Revolving Fund loan program.

In the absence of a State of Iowa public water system supervision program and primacy to enforce the SDWA in Iowa, EPA would administer the SDWA in the state. Local knowledge and assistance would not be available because the EPA regional office is located in Kansas.

Stakeholders prefer to have the Department implement the SDWA in Iowa rather than the EPA because the Department has the history, relationships, knowledge, and track record of successful implementation of the SDWA in Iowa. Iowa's compliance with SDWA standards demonstrates this; in 2023, 99.5 percent of the population in Iowa (3.05 million out of 3.07 million) was served by public water supply systems and regularly received water meeting all health-based drinking water standards in the SDWA.

5. Determination whether less costly methods or less intrusive methods exist for achieving the purpose of the proposed rulemaking:

There are no less costly or intrusive methods to accomplish this purpose. The regulations included in these rules implement state and federal laws.

6. Alternative methods considered by the agency:

- Description of any alternative methods that were seriously considered by the agency:

No alternative methods were considered.

- Reasons why alternative methods were rejected in favor of the proposed rulemaking:

A public water system supervision program, public and private water system construction permitting and standards, water use and allocation program, operator certification program, and Drinking Water State Revolving Fund loan program are provided for in the Iowa Code and administered in part through proposed Chapter 40. A public water system supervision program and associated programs and requirements are necessary for Iowa to retain primacy for enforcing the SDWA in Iowa.

Small Business Impact

If the rulemaking will have a substantial impact on small business, include a discussion of whether it would be feasible and practicable to do any of the following to reduce the impact of the rulemaking on small business:

- Establish less stringent compliance or reporting requirements in the rulemaking for small business.

- Establish less stringent schedules or deadlines in the rulemaking for compliance or reporting requirements for small business.

- Consolidate or simplify the rulemaking's compliance or reporting requirements for small business.

- Establish performance standards to replace design or operational standards in the rulemaking for small business.

- Exempt small business from any or all requirements of the rulemaking.

If legal and feasible, how does the rulemaking use a method discussed above to reduce the substantial impact on small business?

This rulemaking will not have a substantial impact on small business since these rules have been in place for a substantial period of time.

Text of Proposed Rulemaking

ITEM 1. Rescind 567—Chapter 40 and adopt the following **new** chapter in lieu thereof:

DRINKING WATER

DIVISION B

CHAPTER 40

SCOPE OF DIVISION, DEFINITIONS, FORMS, PUBLIC NOTICE AND EDUCATION,
CONSUMER CONFIDENCE REPORTS, REPORTING, AND RECORD MAINTENANCE

567—40.1(455B) Scope of division.

40.1(1) The department conducts the public water supply program and establishes minimum standards for private water supply system construction. The public water supply program includes the following: establishing drinking water standards, including maximum contaminant levels, treatment techniques, maximum residual disinfectant levels, action levels, monitoring, viability assessment, consumer confidence reporting, public notice, public water supply system (PWS) operator certification standards, environmental drinking water laboratory certification program, a state revolving fund loan program consistent with the federal Safe Drinking Water Act (SDWA), and establishing construction standards. The construction, modification, and operation of any PWS requires a permit from the department. Certain construction permits are issued upon certification by a licensed professional engineer that a project meets standards, and in certain instances, permits are issued by local authorities. Private water supplies are regulated by local boards of health.

40.1(2) The chapters listed below contain the requirements and provisions for the noted portions of the public water supply program.

567—Chapter 39: proper well closure or abandonment.

567—Chapter 40: scope of division, public notice and education, consumer confidence reports, reporting, and recordkeeping requirements.

567—Chapter 41: drinking water standards and monitoring requirements.

567—Chapter 43: design, construction, fee, operating, and operation permit requirements.

567—Chapter 44: drinking water state revolving fund program.

567—Chapter 49: nonpublic water supply wells.

567—Chapter 50: water use, withdrawals, and diversions.

567—Chapter 53: protected water sources.

567—Chapter 54: water use permit restrictions and well interference compensation.

567—Chapter 55: aquifer storage and recovery.

567—Chapter 81: operator certification.

567—Chapter 82: water well contractor certification.

567—Chapter 83: laboratory certification.

567—40.2(455B) Definitions, references, and abbreviations. The terms, references, and abbreviations defined in this rule are applicable to this division and the chapters listed in rule 567—40.1(455B), unless otherwise specified.

40.2(1) Defined terms.

“*Action level*” or “*AL*” means the lead or copper concentration(s) in water that determine, in some cases, the treatment requirements that a water system is required to complete.

“*Acute health effect*” means the health effect of a contaminant that is an immediate rather than a long-term risk to health.

“*Animal confinement*” means a lot, yard, corral, or similar structure in which the concentration of livestock or poultry is such that a vegetative cover is not maintained.

“*Animal pasturage*” means a fenced area where vegetative cover is maintained and animals are enclosed.

“*Animal waste*” means animal wastes consisting of excreta, leachings, feed losses, litter, washwaters or other associated wastes.

“*Animal waste stockpiles*” means the stacking, composting or containment of animal wastes.

“*Animal waste storage basin or lagoon*” means a fully or partially excavated or diked earthen structure used for containing animal waste, including earthen side slopes or floor.

“*Animal waste storage tank*” means a completely fabricated structure, with or without a cover, either formed in place or transported to the site, used for containing animal wastes.

“*Antisiphon device*” means a device that prevents back siphonage by means of a relief valve that automatically opens to the atmosphere, preventing the creation of subatmospheric pressure within a pipe, thereby preventing water from reversing its flow.

“*Authority*” means the Iowa finance authority (IFA) as established by Iowa Code chapter 16.

“*Backflow*” means the flow of water or other liquids, mixtures, or substances into a potable water supply’s distribution system from any source other than its permitted source.

“*Backflow preventer*” is a device or means to prevent backflow into a potable water system.

“*Back siphon*” means the flowing back of used, contaminated, or polluted water from a plumbing fixture or vessel as a result of negative or subatmospheric pressure within the distribution system.

“*Best available technology*” or “*BAT*” means the best technology, treatment techniques, or other means that the state finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available after taking cost into consideration.

“*CFR*” or “*Code of Federal Regulations*” means the federal administrative rules adopted by the United States in effect as of July 1, 2024. The amendment of the date contained in this definition shall constitute the amendment of all CFR references contained in Division B unless a date of adoption is set forth in a specific rule.

“*Cistern*” means a tank that stores rainwater from roofs.

“*Clean compliance history*” means, for the purposes of 567—paragraph 41.2(1)“e”(4)“2,” a record of no monitoring violations and no coliform treatment technique trigger exceedances or treatment technique violations under 567—subrule 41.2(1).

“*Combined filter effluent*” or “*CFE*” is generated when the effluent water from the individual filters in operation is combined into one stream. Representative samples of the combined filter effluent are monitored to determine compliance with treatment technique requirements.

“*Composite correction program*” or “*CCP*” is a systematic procedure that identifies and corrects the unique factor combinations in the areas of design, operation, maintenance and administration that limit the performance of a filtration plant. A CCP includes a comprehensive performance evaluation (CPE) and comprehensive technical assistance (CTA).

“*Comprehensive technical assistance*” or “*CTA*” is a CCP’s performance improvement phase that is implemented if the CPE results indicate improved performance potential by a filtration plant, in which the system must identify and address plant-specific factors.

“*Consecutive PWS*” means an active PWS that purchases or obtains all or a portion of its water from another PWS, also called a wholesale system. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

“*Conservation easement*” means an interest in land that entitles a person to use the land possessed by another (affirmative easement), or to restrict uses of the land subject to the easement (negative easement). A conservation easement restricts the landowner to uses that are compatible with resource conservation.

“*Contiguous*” means directly adjacent along all or most of one side of a legally defined piece of property. Tracts of land involved in the same operation or water supply and separated only by roads, railroads, or bike trails are deemed contiguous tracts.

“*Corrosive water*” means a water that, due to its physical and chemical characteristics, may cause leaching or dissolving of the constituents of the transporting system in which it is contained.

“*Cross connection*” means any actual or potential connection between a potable water supply and any other source or system through which it is possible to introduce into the potable system any used water, industrial fluid, gas, or other substance other than the intended potable water with which the system is supplied.

“*CT*” means the product of the residual disinfectant concentration (C, in mg/L) determined before or at the first customer and the corresponding disinfectant contact time (T, in minutes), $C \times T$. If a PWS applies disinfectants at more than one point prior to the first customer, it must determine the CT for each disinfectant sequence at or before the first customer to determine the total inactivation ratio (also known as total percent inactivation). When determining the total inactivation ratio, a PWS must determine C for each disinfection sequence and the corresponding T before any subsequent disinfection application point(s). The CT is dependent upon the microorganism to be inactivated and is affected by the disinfectant type, pH, and water temperature.

“*Customers*” in consumer confidence reports are defined as billing units or service connections to which a CWS delivers water.

“*Deep well*” means a well located and constructed such that there is a continuous layer of low permeability soil or rock at least 5 feet thick located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn.

“*Disinfection profile*” is defined in 40 CFR §141.2. The procedure for developing a disinfection profile is contained in 567—paragraph 43.9(2) “b” and 567—subrule 43.10(2).

“*Drinking water state revolving fund*” or “*DWSRF*” means the department-administered fund intended to develop drinking water revolving loans to help finance drinking water infrastructure improvements, source water protection, system technical assistance, and other activities intended to encourage and facilitate PWS rule compliance and public health protection.

“*DWSRF funds*” means the combination of a particular fiscal year’s federal capitalization grant appropriation plus the 20 percent state of Iowa match, and any additional funds made available through the program.

“*Eligible cost*” means the cost of all labor, material, machinery, equipment, loan initiation and loan service fees, project planning, design and construction engineering services, legal fees and expenses directly related to projects, capitalized interest during the construction of projects, and all other expansion, construction, and rehabilitation of all or part of projects included in the funding request placed on the draft intended use plan as a fundable project, subject to commission approval.

“*Emergency/standby well or connection*” means a well or a connection to another PWS that is used less than 30 calendar days per calendar year.

“*Federal cross-cutters*” means the federal laws and authorities that apply to projects funded through the DWSRF.

“*Federal fiscal year*” or “*FFY*” means the federal fiscal year starting October 1 and ending September 30.

“*First draw sample*” means a one-liter tap water sample, collected in accordance with 567—paragraph 41.4(1) “c,” that has been standing in plumbing pipes at least six hours and is collected without flushing the tap.

“*GAC10*” means granular activated carbon filter beds with an empty-bed contact time of ten minutes based on average daily flow and a 180-day carbon reactivation frequency, except that the reactivation frequency for GAC10 is 120 days when used as a BAT for compliance with the MCL locational running annual average for TTHMs and HAAs.

“*Health advisory*” or “*HA*” means a group of levels set by the EPA below which no harmful health effect is expected from a given contaminant in drinking water. The HAs used by the department are listed in the most current edition of the EPA’s Drinking Water Regulations and Health Advisories, available at www.epa.gov/sdwa/drinking-water-health-advisories-has. The lifetime HA is 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 long-term HA is the concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects up to approximately seven years (10 percent of an individual's lifetime of exposure), with a margin of safety.

"Human consumption" means water used as part of or in connection with drinking; washing; food processing; incidental to commercial food preparation, such as water used in beverages or other food items; ice used in drinks or in salad bars; water for washing of food; water used for washing dishes, pans or utensils used in food preparation or service; water used for cleanup and washing of food preparation or service areas; or water for bathing, showering, hand washing, or oral hygiene purposes. Human consumption does not include water for production of packaged or bulk food products regulated by other state or federal regulatory agencies, such as livestock slaughtering or bottled or canned food and beverages; cooling water; industrial or commercial wash waters used for nonfood products; irrigation water; or water used in toilets or urinals.

"Impoundment" means a reservoir, pond, or lake in which surface water is retained for a period of time, ranging from several months upward, created by constructing a barrier across a watercourse and used for water storage, regulation, or control.

"Individual filter effluent" or *"IFE"* means the effluent water from a specific filter. Representative samples of the IFE are monitored to determine compliance with TT requirements.

"Influenced groundwater" or *"IGW,"* also known as groundwater under the direct influence (GWUDI) of surface water, means any groundwater that is under the direct or indirect influence of surface water, as determined by the presence of (1) significant occurrence of insects or other macroorganisms, algae or large-diameter pathogens such as *Cryptosporidium* or (2) significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH that correlate to climatological or surface water conditions or other parameters as specified in 567—43.5(455B).

"Initial compliance period" means the first full three-year compliance period of a compliance cycle.

"Intended use plan" or *"IUP"* means a plan identifying the intended uses of funds available for loans in the DWSRF for each fiscal year as described in Section 1452 of the SDWA.

"Lead free," when used with respect to solder and flux, refers to solders and flux containing not more than 0.2 percent lead and not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures in accordance with 42 U.S.C. 300-g-6. The following requirements of 40 CFR 143, Subpart B, that pertain to PWSs are adopted by reference: 40 CFR §143.10, 40 CFR §143.11, and 40 CFR §143.12(b-f).

"Lead service line" or *"LSL"* means a service line made of lead that connects the water main to the building inlet and any lead pigtail, gooseneck, or other fitting that is connected to such a lead line. A lead gooseneck is not considered a lead service line unless it exceeds ten feet.

"Level 2 assessment" is defined in 40 CFR §141.2. A Level 2 assessment is conducted by a department water supply inspector and will typically include the system operator. The department may tailor specific assessment elements with respect to a system's size and type and a distribution system's size, type and characteristics. A system must comply with any expedited actions or additional actions required by the department in the case of an *E. coli* MCL violation.

"Maintenance" means the replacement of equipment or materials that are necessary to maintain the operation of a PWS but do not alter capacity, water quality or treatment method, or effectiveness.

"Nonacute health effect" means the health effect of a contaminant which is a long-term rather than immediate risk to health.

"Nontransient noncommunity water system" or *"NTNC"* means a PWS, other than a CWS, that 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 NTNCs are schools, day-care centers, factories, offices and other PWSs that provide water to a fixed population of 25 or more people. In addition, other service areas, such as hotels, resorts, hospitals and restaurants, are considered as NTNCs if they

regularly serve at least 25 or more of the same persons for four or more hours per day, for four or more days per week, for 26 or more weeks of the year.

“*Point-of-use treatment device*” or “*POU*” is a treatment device applied to a single tap or multiple taps that reduces contaminants in drinking water at those taps but is not intended to treat all of the water in the facility.

“*Population served*” means the total number of persons served by a PWS that provides water intended for human consumption. For municipalities that serve only the population within their incorporated boundaries, it is the last official (or officially amended) U.S. census population. For all other CWSs, it is either the actual counted population that is verifiable by the department or the population calculated by multiplying the number of service connections by an occupancy factor of 2.5 persons per service connection. For municipalities that also serve outside their incorporated boundaries, the served population must be added to the official census population as determined either by verifiable count or by the 2.5 persons per service connection occupancy factor. For NTNC and TNC systems, it is the average number of daily employees plus the average number of other persons served, such as customers or visitors during the peak month of the year, regardless of whether each person actually uses the water for human consumption. Where a system provides water to another PWS (consecutive PWS) that is required to have an operation permit, the population of the recipient PWS shall not be counted as a part of the system providing the water. CWSs and NTNCs will pay their operation permit fees based upon the population served.

“*Potable water*” means water that is suitable for human consumption. Drinking water that meets the requirements of 567—Chapters 40, 41, and 43 is considered to be potable water.

“*Privy*” means a structure used for the deposition of human body wastes.

“*Project*” includes the planning, design, construction, alteration or extension of any PWS but does not include the maintenance of a system.

“*Project priority list*” means the list of projects in priority order that may qualify for DWSRF loan assistance contained in the IUP document prepared pursuant to 567—44.8(455B). The priority list identifies all projects eligible for funding and the points assigned to each project pursuant to 567—44.7(455B).

“*Public water supply system control*” is defined as one of the following forms of authority over a service line: authority to set standards for construction, repair, or maintenance of the service line; authority to replace, repair, or maintain the service line; or ownership of the line. Contaminants added to the water under circumstances controlled by the water consumer or user, with the exception of those contaminants resulting from the corrosion of piping and plumbing caused by water quality, are excluded from this definition.

“*Public water supply system*” or “*PWS*” means a system that provides water to the public for human consumption through pipes or other constructed conveyances, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. This includes any collection, treatment, storage, and distribution facilities under the system operator’s control and used primarily in connection with such a system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such a system. The term does not include any special irrigation district. A PWS is either a community water system (CWS) or a noncommunity water system (NCWS).

“*Regional water system*” means a PWS in which the projected number of service connections, in at least 50 percent of the distribution system’s length, does not average more than eight service connections per linear mile of water main.

“*Sanitary sewer pipe*” means a sewer complying with the department’s standards for sewer construction.

“*Sanitary survey*” means a review and on-site inspection conducted by the department of a PWS’s water source(s), facilities, equipment, operation and maintenance (O&M), and records for the purpose of evaluating the adequacy of such source(s), and facilities, equipment, and O&M for producing and

distributing safe drinking water, in order to identify improvements necessary to maintain or improve drinking water quality pursuant to 567—subrule 43.1(7).

“*SDWA*” or “*Act*” means the Safe Drinking Water Act as amended (42 U.S.C. 300f et seq.).

“*Sedimentation*” means a water treatment process for solid particle removal from a suspension before filtration by gravity or separation.

“*Septic tank*” means a watertight structure into which wastewater is discharged for solids separation and digestion.

“*Service connections*” means the total number of active and inactive service lines originating from a water distribution main for the purpose of delivering water intended for human consumption. For municipalities, rural water districts, mobile home parks, housing developments, and similar facilities, this includes, but is not limited to, occupied and unoccupied residences and buildings, provided that there is a service line connected to the water main (or another service line), and running onto the property. For rental properties which are separate PWSs, this includes, but is not limited to, the number of rental units. Connections to a system that delivers water by a constructed conveyance other than a pipe are excluded from this definition if:

1. The water is used exclusively for purposes other than human consumption;
2. The department determines that alternative water to achieve the equivalent level of public health protection provided by the applicable national primary drinking water regulation is provided for human consumption; or
3. The department determines that the water provided for human consumption is centrally treated or treated at the entry point by the provider, a pass-through entity, or the user to achieve the equivalent level of protection provided by the applicable national primary drinking water regulations.

“*Service line sample*” means a sample of water, one liter in volume, that has been standing for at least six hours in a service line, collected in accordance with 567—paragraph 41.4(1) “c,” and used to determine a lead or copper concentration.

“*Shallow well*” means a well located and constructed such that there is not a continuous layer of low permeability soil or rock (or equivalent retarding mechanism acceptable to the department) at least 5 feet thick, the top of which is located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn.

“*Significant deficiency*” includes a defect in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the department determines to be causing, or has the potential for causing the introduction of contamination into the water delivered to consumers.

“*Significant noncompliance*” or “*SNC*” means the failure to comply with any national primary drinking water standard as adopted by the state of Iowa according to criteria established by the EPA administrator.

“*Source/entry point*” or “*SEP*” means the entry point of water into the distribution system that is representative of each source after application of all treatment and before the first service connection. This point is used for the collection of certain compliance samples. If a representative sample of all water sources cannot be obtained, as determined by the department, separate SEPs with the appropriate monitoring requirements will be assigned by the department.

“*Special irrigation district*” means an irrigation district in existence prior to May 18, 1994, that provides primarily agricultural service through a piped water system with only incidental residential or similar use where the system or the residential or similar users of the system comply with numbered paragraphs “2” and “3” in the definition of “service connections.”

“*Standard specifications*” means specifications submitted to the department for use as a reference in reviewing future plans for proposed water main construction.

“*Ten States Standards*” means the “Recommended Standards for Water Works,” 2022 edition, a report of the Great Lakes—Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, available on their website at www.health.state.mn.us/communities/environment/water/tenstates/standards.html.

“*Transient noncommunity water system*” or “*TNC*” is defined in 40 CFR §141.2.

“*Treatment technique*” or “*TT*” means a treatment process required to minimize the level of a contaminant in drinking water. A treatment technique is specified in cases where it is not technically or economically feasible to establish an MCL, and it is an enforceable procedure or level of technological performance which PWSs must follow to ensure control of a contaminant.

“*Uncovered finished water storage facility*” is defined in 40 CFR §141.2. Such facilities are prohibited.

“*Unregulated contaminant*” means a contaminant for which no MCL has been set, but which does have federal monitoring requirements for certain PWSs set forth in 40 CFR §141.40, and additional reporting requirements in 567—40.7(455B).

“*Viability*” means the technical, financial, and managerial ability to comply with applicable national primary drinking water standards as adopted by the state of Iowa. Viability is the ability of a system to remain in compliance insofar as the requirements of the SDWA.

“*Waterborne disease outbreak*” means the significant occurrence of acute infectious illness, epidemiologically associated with the ingestion of water from a PWS that is deficient in treatment, as determined by the Iowa department of health and human services.

“*Water distribution system*” is defined in Iowa Code section 455B.211. The term includes any storage facilities and pumping stations.

“*Water main pipe*” means a water main complying with the department’s standards for water main construction.

40.2(2) Definitions in Iowa Code and the CFR. The following terms are defined in the referenced locations.

- a. Iowa Code section 455B.101: “commission,” “department,” and “director.”
- b. Iowa Code section 455B.171: “maximum contaminant level.”
- c. 40 CFR §141.2: “bag filters,” “bank filtration,” “cartridge filters,” “coagulation,” “combined distribution system” or “CDS,” “community water system” or “CWS,” “compliance cycle,” “compliance period,” “comprehensive performance evaluation” or “CPE,” “confluent growth,” “contaminant,” “conventional filtration treatment,” “corrosion inhibitor,” “diatomaceous earth filtration,” “direct filtration,” “disinfectant,” “disinfection,” “dose equivalent,” “effective corrosion inhibitor residual,” “enhanced coagulation,” “enhanced softening,” “filter profile,” “filtration,” “finished water,” “flocculation,” “flowing stream,” “GAC20,” “gross alpha particle activity,” “gross beta particle activity,” “haloacetic acids” or “HAA5,” “halogen,” “lake” or “reservoir,” “large water system,” “legionella,” “level 1 assessment,” “locational running annual average” or “LRAA,” “man-made beta particle and photon emitters,” “maximum contaminant level” or “MCL,” “maximum contaminant level goal” or “MCLG,” “maximum residual disinfectant level” or “MRDL,” “maximum residual disinfectant level goal” or “MRDLG,” “medium-size water system,” “membrane filtration,” “noncommunity water system” or “NCWS,” “optimal corrosion control treatment,” “performance evaluation sample,” “picocurie” or “pCi,” “plant intake,” “point of disinfectant application,” “point-of-entry treatment device” or “POE,” “presedimentation,” “rem,” “repeat compliance period,” “residual disinfectant concentration,” “sanitary defect,” “seasonal system,” “single-family structure,” “slow sand filtration,” “small water system,” “standard sample,” “supplier of water,” “surface water” or “SW,” “SUVA,” “too numerous to count,” “total organic carbon” or “TOC,” “total trihalomethanes” or “TTHM,” “trihalomethane” or “THM,” “two-stage lime softening,” “virus,” and “wholesale system.”

40.2(3) References and abbreviations.

- a. *References.* The abbreviated name of the professional associations and societies whose standards are referenced in this division and the websites where the standards, methods, or guidance documents may be obtained are listed in the following table. The specific standards, editions, or volumes are set forth in specific rules of this division.

Abbreviated Name	Association/Society Name	Standards/Publications Website
ANSI	American National Standards Institute	webstore.ansi.org
APHA	American Public Health Association	www.apha.org
API	American Petroleum Institute	www.api.org/products-and-services/standards
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers	www.ashrae.org/technical-resources/standards-and-guidelines
ASME	American Society of Mechanical Engineers	www.asme.org/codes-standards
ASTM	Annual Book of Standards published by ASTM International	www.astm.org/products-services/standards-and-publications.html
AWS	American Welding Society	www.aws.org/Standards-and-Publications
AWWA	American Water Works Association	www.awwa.org/Publications/Standards
Iowa DOT	Iowa department of transportation	iowadot.gov/specifications
NACE	National Association of Corrosion Engineers International, part of the Association for Materials Protection and Performance (AMPP)	www.ampp.org/standards/ampp-standards/about-ampp-standards
NARA	National Archives and Records Administration	www.archives.gov
NEC	National Electrical Code, part of the National Fire Codes published by the National Fire Protection Association (NFPA)	www.nfpa.org
NEMI	National Environmental Methods Index	www.nemi.gov
NGWA	National Ground Water Association	www.ngwa.org/publications-and-news/industry-resource-library
NSF	National Sanitation Foundation	www.nsf.org/nsf-standards
NTIS	National Technical Information Service, a bureau of the U.S. Department of Commerce	www.ntis.gov
Standard Methods, SM, or SM Online	Standard Methods for the Examination of Water and Wastewater, published by the American Public Health Association (APHA), American	www.standardmethods.org

Abbreviated Name	Association/Society Name	Standards/Publications Website
	Water Works Association (AWWA), and Water Environment Federation (WEF)	
USGS	United States Geological Survey	www.usgs.gov
WSC	Water Systems Council	www.watersystemscouncil.org/resources/well-standards

b. Abbreviations. In addition to the abbreviations listed in the definitions in 40.2(1), the following abbreviations are used in this division.

Abbreviation	Meaning
ALE	action level exceedance
ASR	aquifer storage and recovery
CCR	consumer confidence report
CCT	corrosion control treatment
CDC	Centers for Disease Control and Prevention
CEU	continuing education unit
DBP	disinfection byproduct
DIT	direct integrity test
DOC	dissolved organic carbon
DRC	direct responsible charge
EPA	U.S. Environmental Protection Agency
FDA	U.S. Food and Drug Administration
ft	foot
GAC	granular activated carbon
GW	groundwater
HAA	haloacetic acids
HAL	health advisory level
HPC	heterotrophic plate count
ID	identification (number)
IDSE	initial distribution system evaluation
IFA	Iowa finance authority
IGS	Iowa geological survey
IOC	inorganic chemical
L	liter
LRV	log removal value
LSLR	lead service line replacement
MDL	method detection limit
µg/L	microgram per liter
mg/L	milligram per liter
mL	milliliter
mm	millimeter
MOR	monthly operating report
mrem	1/1000 of a rem
MRT	maximum residence time

Abbreviation	Meaning
MS	matrix spike
NRCS	Natural Resources Conservation Service (part of the U.S. Department of Agriculture)
NTU	nephelometric turbidity units
O&M	operation and maintenance
OCC	optimal corrosion control
OCCT	optimal corrosion control treatment
OEL	operational evaluation level
OWQP	optimal water quality parameter
OXID	oxidation
P/A	presence-absence
PAC	powdered activated carbon
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
PE	public education
PN	public notice
PQL	practical quantification level
psi	pounds per square inch
PTA	packed tower aeration
PVC	polyvinyl chloride
QCRV	quality control release value
RAA	running annual average
RDC	residual disinfectant concentration
SCH	schedule (as in schedule 40 rating)
SDR	standard dimension ratio
SEP	source/entry point
SMP	standard monitoring plan
SMR	self-monitoring requirement
SOC	synthetic organic chemical
SW/IGW	surface water/influenced groundwater
SRF	state revolving fund (see DWSRF)
TRC	total residual chlorine
U.S.C.	United States Code
URTH	unacceptable risk to health
UV	ultraviolet
VOC	volatile organic chemical
WCP	watershed control program

567—40.3(17A,455B) Forms. All forms used by the public to apply for department approvals and to report on activities related to the department's public water supply program may be obtained on the department's website at www.iowadnr.gov or upon request. Properly completed forms shall be submitted to the department as noted in the form instructions.

40.3(1) Construction permit application forms. The required public water supply construction permit application forms (also known as schedules) and other forms are listed below.

Schedule No.	Form Name	Form Number
-	Water Supply Service Agreement	542-3121
1a	General Information	542-3178
1b	Minor Water Main Construction Permit	542-3151
1c	Fee Calculations	542-3179
2a	Water Mains, General	542-3030
2b	Water Mains, Specifications	542-3031
2c	Notification of Minor Water Main Construction	542-3152
3a	Water System, Design Capacity Data	542-3032
3b	Source Information	542-3029
3c	Water Quality Data	542-3028
4	Site Approval	542-3078
5a	Well Construction	542-3027
5b	Well Appurtenances	542-3026
5c	Well Profile	542-3077
5d	Surface Water Supply	542-3139
6a	Distribution Water Storage Facilities	542-3140
7	Schematic Flow Diagram	542-3142
8	Aeration	542-3143
9	Clarification-Sedimentation	542-3144
10	Suspended Solids Contact	542-3145
11	Ion Exchange	542-3146
12	Filters	542-3147
13a	Chemical Addition	542-3241
13b	Dry Chemical Addition	542-3130
13c	Gas Chlorination	542-3131
13d	Fluoridation	542-3132
13e	Sampling and Testing	542-3133
14	Pumping Station	542-3134
15	Water Storage Facilities	542-3135
16a	Wastewater General	542-3136
16b	Waste Treatment Ponds	542-3137
16c	Filtration and Mechanical	542-3138
16d	Discharge to Sewer	542-3103
-	Notification of Completion of Construction	542-3019

40.3(2) *Operation permit and public water supply forms.* The required public water supply sampling forms and the operation permit application and monthly operating report (MOR) forms are available from the department.

567—40.4(17A,455B) PWS construction permit application procedures.

40.4(1) General procedures. Applications for written department approval for any new construction or for reconstruction pursuant to 567—Chapter 43 shall consist of complete plans and specifications, an application fee, and appropriate water supply construction permit application schedules.

a. The department will review a construction permit application and issue a construction permit for project approval if the review shows that a project meets all construction standards, in accordance with 567—Chapter 43. Projects that do not meet all construction standards will not be approved unless a waiver pursuant to 567—paragraph 43.3(2) “*b*” is granted. A waiver may be requested when plans and specifications are submitted or after a design discrepancy is pointed out to the applicant.

b. The department may review project plans and specifications and provide comments or recommendations to the applicant. Departmental comments and recommendations are advisory, except when departmental review determines that a facility does not comply with department-approved plans or specifications or the construction standards, pursuant to the criteria for project design certification. The system owner must correct any deficiencies in a timely manner, as set forth by the department.

40.4(2) Site survey. For public water sources and for below-ground level finished water storage facilities, a site survey and approval must be made by the department. The manner and procedures for applying for and processing a site survey are the same as in 40.4(1), except that the following information must be submitted by the applicant’s engineer.

a. A preliminary engineering report or cover letter containing a brief description of the proposed source or storage facility and assurance that the project is in conformance with the long-range planning of the area.

b. Completed Schedules 1a and 4.

c. A detailed map showing all potential sources of contamination (567—Chapter 43, Table A, contains more information) within:

- (1) 1,000 feet of a proposed well location, with a scale no smaller than one inch = 200 feet;
- (2) 200 feet of a proposed below-ground level finished water storage facility;
- (3) 2,500 feet from a proposed surface water source, with a scale no smaller than one inch = 660 feet;
- (4) 2,500 feet from an impoundment (within the drainage area), with a scale no smaller than one inch = 660 feet; or
- (5) Six miles upstream of a proposed river intake.

40.4(3) Modifications of an approved construction project. Persons seeking to modify a water supply construction project after receiving a construction permit from the department shall submit the appropriate fee and either an addendum to plans and specifications, a change order, or revised plans and specifications at least 30 days prior to the planned modification. The department shall review the submitted material within 30 days of submission and shall issue a supplemental permit if the proposed modifications meet department standards.

40.4(4) Certification of project design. A permit shall be issued for the construction, installation, or modification of a PWS or for a water supply distribution system extension if a qualified, licensed professional engineer certifies that the plans and specifications comply with federal and state laws and regulations or that a waiver to standards has been granted by the department.

567—40.5(455B) Public notice (PN).

40.5(1) Applicability. Each owner or operator of a public water supply system (PWS) must give notice for all violations of public drinking water rules and for other situations, as listed in this subrule. The term “violations” includes violations of, or failure to comply with, the maximum contaminant level (MCL), maximum residual disinfection level (MRDL), treatment technique (TT), monitoring requirements, and testing procedures in 567—Chapters 40, 41, and 43. The term “other situations” includes all situations determined by the department to require a PN, including the violations and situations listed in 40.5(2), 40.5 (3), and 40.5 (4), and any other situation where the department

determines that PN is needed. PN is not required for ammonia monitoring conducted pursuant to 567—subrule 41.11(2).

a. PN tiers. PN requirements are divided into three tiers to account for the seriousness of a violation or situation and of any potential adverse health effects that may be involved. The PN requirements for each violation or situation are determined by the tier to which it is assigned.

(1) Tier 1 PN is required for all drinking water violations and situations with significant potential to have serious adverse effects on human health as a result of short-term exposure.

(2) Tier 2 PN is required for all other drinking water violations and situations with potential to have serious adverse effects on human health.

(3) Tier 3 PN is required for all other drinking water violations and situations not included in Tier 1 or Tier 2.

b. General PN requirements. Each PWS must provide PN to persons served by the system, in accordance with this rule. A copy of the notice must also be sent to the department, in accordance with 40.8(1)“c.”

(1) Consecutive systems. PWSs that sell or otherwise provide drinking water to other PWS (i.e., to consecutive systems) are required to provide PN to the owner or operator of the consecutive system. The consecutive system is responsible for providing PN to the persons it serves and must meet the appropriate tier requirements for the violation.

(2) Physically or hydraulically isolated distribution systems. If a PWS has a violation in a portion of the distribution system that is physically or hydraulically isolated from other parts of the distribution system, the department may allow the system to limit distribution of the PN only to persons served by that portion of the system that is out of compliance. Department permission to limit distribution of the notice must be granted in writing.

40.5(2) Tier 1 PN requirements.

a. Tier 1 PN—when required. The following violations or situations require Tier 1 PN:

(1) Violation of the *E. coli* MCL, as specified in 567—paragraph 41.2(1)“a.”

(2) Violation of either the nitrate or nitrite MCL, as defined in 567—subparagraph 41.3(1)“b”(1).

(3) Failure by the system to collect a confirmation sample within 24 hours of its receipt of the first sample result showing a nitrate or nitrite MCL exceedance, when directed by the department, as specified in 567—paragraph 41.3(1)“c”(7)“2.”

(4) Exceedance of the nitrate MCL by NCWSs, where permitted to exceed the MCL by the department under 567—paragraph 41.3(1)“a,” as required in 40.5(7)“c.”

(5) Violation of the chlorine dioxide MRDL when one or more samples, taken in the distribution system on the day following an MRDL exceedance in the sample collected at the entrance to the distribution system, exceeds the MRDL, as defined in 567—paragraph 43.6(1)“b.”

(6) Failure by the system to collect the required chlorine dioxide samples in the distribution system on the day following an MRDL exceedance in the sample collected at the entrance to the distribution system.

(7) Violation of the TT requirement by a surface water (SW) or influenced groundwater (IGW) PWS resulting from an exceedance of the maximum allowable turbidity limit, as specified in 567—Chapter 43, where the department determines, after consultation with the system, that a Tier 1 PN is required or where the department consultation does not take place within 24 hours after the system learns of the violation.

(8) Occurrence of a waterborne disease outbreak or other waterborne emergency, such as a failure or significant interruption in key water treatment processes, a natural disaster disrupting the water supply or distribution system, or a chemical spill or unexpected loading of possible pathogens into the source water that significantly increases the potential for drinking water contamination.

(9) Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the department either in its rules or on a case-by-case basis.

(10) Detection of *E. coli*, enterococci, or coliphage in source water samples, as specified in 567—paragraphs 41.7(3) “a” and “b.”

b. Tier 1 PN—timing. PWSs must:

(1) Provide PN as soon as practical but no later than 24 hours after learning of the violation;

(2) Initiate consultation with the department as soon as practical, but no later than 24 hours after learning of the violation or situation, to determine additional PN requirements. For consultation after normal business hours, use the department’s Environmental Emergency Reporting Hotline, 515.725.8694; and

(3) Comply with any additional PN requirements established as a result of department consultation. Additional requirements may include the timing, form, manner, frequency, and content of repeat PNs (if any) and other actions designed to reach all persons served.

All NTNCs must notify the parent or legal guardian of each child under 18 years of age and any nursing home resident of the Tier 1 violation as soon as possible and within 72 hours, including the PN content in 40.5(5).

c. Tier 1 PN—form and manner. PWSs must provide PN within 24 hours in a form and manner reasonably calculated to reach all persons served. The form and manner used must fit the specific situation and must be designed to reach residential, transient, and nontransient users of the system. To reach all persons served, systems shall use one or more of the following forms of delivery. The department may require multiple forms of delivery in specific situations.

- (1) Appropriate broadcast media, such as radio or television;
- (2) Posting of the PN in conspicuous locations throughout the area served;
- (3) Hand delivery of the PN to persons served; or
- (4) Another delivery method approved in writing by the department.

40.5(3) Tier 2 PN requirements.

a. Tier 2 PN—when required. The following violations or situations require Tier 2 PN:

(1) All violations of the MCL, MRDL, and TT requirements, except where a Tier 1 PN is required under 40.5(2);

(2) Violations of the monitoring and testing procedure requirements, where the department determines that a Tier 2 rather than a Tier 3 PN is required, accounting for potential health impacts and persistence of the violation;

(3) Failure to comply with any compliance schedule in an operation permit, administrative order, or court order pursuant to 567—subrule 43.2(5);

(4) Failure to comply with an HA as determined by the department; and

(5) Failure to take corrective action or failure to maintain at least 4-log virus treatment (using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal) before or at the first customer under 567—paragraph 41.7(4) “a.”

b. Tier 2 PN—timing. PWSs must:

(1) Provide the initial PN as soon as practical but no later than 30 days after learning of a violation. If PN is posted, it must remain in place for as long as the violation or situation persists but in no case for less than seven days, even if the violation or situation is resolved. The department may allow additional time for the initial notice of up to three months from the date the system learns of the violation; however, such an extension must be made in writing on a case-by-case basis.

(2) Repeat the PN every three months as long as the violation or situation persists unless the department determines that circumstances warrant a different repeat frequency. A determination that a repeat PN frequency of longer than every three months is allowed must be made in writing on a case-by-case basis. The repeat PN frequency may not be less than once per year. Repeat PNs for an *E. coli* MCL violation, a TT violation under 567—paragraph 41.2(1) “a” or “l,” or a turbidity TT violation under 567—43.9(455B) or 567—43.10(455B) must be made every three months or more frequently.

(3) A PWS using SW or IGW with a TT violation resulting from a single exceedance of the maximum allowable turbidity limit, pursuant to 567—43.9(455B) or 567—43.10(455B), must consult with the department as soon as practical, but no later than 24 hours after learning of the violation, to

determine whether a Tier 1 or Tier 2 PN is required to protect public health. For consultation after normal business hours, use the department's Environmental Emergency Reporting Hotline, 515.725.8694. If the consultation does not occur within the 24-hour period, the PWS must distribute a Tier 1 PN within the next 24 hours, or no later than 48 hours after learning of the violation, following the requirements of 40.5(2) "b" and "c."

c. Tier 2 PN—form and manner. PWSs must provide the initial PN and any repeat PN in a form and manner that is reasonably calculated to reach persons served in the required time period. The PN form and manner may vary based on the specific situation and type of PWS, but the PN must meet the requirements of this paragraph unless directed otherwise in writing by the department.

d. Tier 2 PN—CWS PN methods. CWSs must provide PN by the following methods:

(1) Mail or other direct delivery to each customer receiving a bill and to other service connections receiving water from the PWS; and

(2) Any other method reasonably calculated to reach other persons regularly served by the system if they would not normally be reached by mail or direct delivery. Such persons may include those who do not pay water bills or do not have service connection addresses, such as renters, students, nursing home residents, or prison inmates. Other methods may include:

1. Publication in a local newspaper;
2. Delivery of multiple copies for distribution by customers that provide their drinking water to others, such as apartment building owners or large private employers;
3. Posting in public places served by the system or on the Internet; or
4. Delivery to community organizations.

e. Tier 2 PN—NCWS PN methods. NCWS (TNC or NTNC) must provide PN by the following methods:

(1) Posting PN in conspicuous locations throughout the distribution system frequented by persons served by the system or by mail or direct delivery to each customer and service connection (where known); and

(2) Any other method reasonably calculated to reach other persons served who would not normally be reached by posting, mail, or direct delivery. Such persons may include those who may not see a posted PN because it is not in a location they routinely visit. Other methods may include:

1. Publication in a local newspaper or newsletter distribution to customers;
2. Use of email to notify employees or students; or
3. Delivery of multiple copies in central locations, such as community centers.

In addition to the previous requirements, NTNCs that serve children under 18 years of age (such as child care facilities, schools, and hospitals) or nursing home residents (including elder care facilities) must provide PN in writing to the parent or legal guardian of each person within the department-specified time period. The PN content must meet the requirements of 40.5(5).

40.5(4) Tier 3 PN requirements.

a. Tier 3 PN—when required. The following violations or situations require Tier 3 PN:

(1) Monitoring violations or a failure to comply with a department-required testing procedure, except where a Tier 1 PN is required under this rule or where the department determines that a Tier 2 PN is required;

(2) Availability of unregulated contaminant monitoring results, as required of certain PWSs by 40 CFR §141.40, in accordance with 40.5(7) "a";

(3) Exceedance of the fluoride level of 2.0 mg/L and not exceeding the MCL of 4.0 mg/L, in accordance with 40.5(7) "b";

(4) Failure to report required data or analytical results to the department;

(5) Failure to meet the requirements of this chapter for PN, PE, or the development and distribution of the Consumer Confidence Report (CCR);

(6) Failure to retain a certified operator in accordance with 567—subrule 43.1(5), where the department determines that PN is required;

(7) Failure to maintain department-required records; and

(8) Any other situation where the department determines PN is needed.

b. Tier 3 PN—timing.

(1) Initial PN.

1. For violations or situations listed in 40.5(4)“a”(1), 40.5(4)“a”(4), or 40.5(4)“a”(5), PWSs must provide the initial PN within 12 months after learning of the violation or situation. If the violation pertains to a contaminant that could have acute health effects as determined by the department, such as coliform bacteria, nitrate, nitrite, or turbidity, the initial notice must be provided within three months. If the PN is posted, it must remain in place for as long as the violation or other situation persists, but in no case less than seven days, even if the violation or situation is resolved.

2. For availability of unregulated contaminant monitoring results pursuant to 40.5(4)“a”(2), the system must provide the initial PN within 12 months of receiving the results.

3. For 40.5(4)“a”(3), 40.5(4)“a”(6), or 40.5(4)“a”(7), the initial PN timing is at the department’s discretion but the notice must be made within 12 months of the violation or situation.

(2) Repeat PN.

1. For violations or situations listed in 40.5(4)“a”(1), 40.5(4)“a”(3), 40.5(4)“a”(4), or 40.5(4)“a”(5), PWSs must repeat the PN every 12 months in which the violation or situation persists. If the violation pertains to a contaminant that could have acute health effects, such as coliform bacteria, nitrate, nitrite, or turbidity, the system must repeat the PN every three months in which the violation or situation persists. If the PN is posted, it must remain in place for as long as the violation or other situation persists, but in no case less than seven days, even if the violation or situation is resolved.

2. For availability of unregulated contaminant monitoring results pursuant to 40.5(4)“a”(2), the system is not required to repeat the PN once the initial PN requirement has been met.

3. For 40.5(4)“a”(3), 40.5(4)“a”(6), or 40.5(4)“a”(7), the requirement for and timing of the repeat PN is at the department’s discretion. If required, the repeat PN must be made within 12 months of the initial PN.

c. Tier 3 PN—form and manner. PWSs must provide the initial PN and any repeat PN in a form and manner that is reasonably calculated to reach persons served in the required time period. The PN form and manner may vary based on the specific situation and type of system, but it must meet the requirements of this paragraph unless directed otherwise in writing by the department.

d. Tier 3 PN—CWS PN methods. CWSs must provide PN by:

(1) Mail or other direct delivery to each customer receiving a bill and to other service connections receiving water from the PWS; and

(2) Any other method reasonably calculated to reach other persons regularly served by the system if they would not normally be reached by mail or direct delivery. Such persons may include those who do not pay water bills or do not have service connection addresses, such as renters, students, nursing home residents, or prison inmates. Other methods may include:

1. Publication in a local newspaper;

2. Delivery of multiple copies for distribution by customers that provide their drinking water to others, such as apartment building owners or large private employers;

3. Posting in public places or on the internet; or

4. Delivery to community organizations.

(3) Use of the CCR for initial and repeat PNs. For CWSs, the CCR required under 567—40.7(455B) may be used as a vehicle for initial and repeat Tier 3 PNs as long as:

1. The CCR is provided to persons served within the time frames under 40.5(4)“b”;

2. The Tier 3 PN in the CCR follows the content requirements under 40.5(5); and

3. The CCR is distributed following the delivery requirements under 40.5(4)“c”(1) and 40.5(4)“c”(2).

e. Tier 3 PN—NCWS PN methods. NCWSs (TNCs and NTNCs) must provide PN by:

(1) Posting PN in conspicuous locations throughout the distribution system frequented by persons served by the system or by mail or direct delivery to each customer and service connection (where known); and

(2) Any other method reasonably calculated to reach other persons served if they would not normally be reached by the posted, mailed, or delivered notice. Such persons may include those who may not see a posted PN because it is not in a location they routinely visit. Other methods may include:

1. Publication in a local newspaper or newsletter distributed to employees;
2. Use of email to notify employees or students; or
3. Delivery of multiple copies in central locations, such as community centers.

40.5(5) PN content.

a. Required elements. Each PN must contain the following:

- (1) A description of the violation or situation, including the contaminant(s) of concern and, as applicable, the contaminant level(s);
- (2) When the violation or situation occurred;
- (3) Any potential adverse health effects from the violation or situation, including the standard language in 40.5(5)“c”(1) or 40.5(5)“c”(2), where applicable;
- (4) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in their drinking water;
- (5) Whether alternative water supplies or bottled water should be used or require a boil-water order;
- (6) What actions consumers should take, including when they should seek medical help, if known;
- (7) What the system is doing to correct the violation or situation;
- (8) When the system expects to return to compliance or resolve the situation;
- (9) The name, business address, and telephone number of the PWS owner, operator, or designee as a source of additional information concerning the PN; and
- (10) A statement to encourage the PN recipient to distribute the notice to other persons served, using the standard language under 40.5(5)“c”(3), where applicable.

b. Appearance and presentation.

- (1) Each PN must:
 1. Be displayed in a conspicuous way when printed or posted;
 2. Not contain overly technical language or very small print;
 3. Not be formatted in a way that defeats the purpose of the notice; and
 4. Not contain language that nullifies the purpose of the notice.
- (2) Each PN must comply with multilingual requirements, as follows:
 1. For PWSs serving a large proportion of non-English speaking consumers, as determined by the department, a PN must contain information about its importance in the appropriate language(s) or contain a telephone number or address where persons served may contact the system to obtain a translated copy of the notice or to request assistance in the appropriate language.
 2. In cases where the department has not determined what constitutes a large proportion of non-English speaking consumers for a PWS, a PN must contain the same information as in 40.5(5)“b”(2)“1” above, where appropriate, to reach a large proportion of non-English speaking persons served by the system.

c. Standard language. PWSs must include the following statements in PNs:

- (1) Health effects for MCL, MRDL, or TT violations. Each PN must include the health effects language in Appendix B to 40 CFR Part 141, Subpart Q, for the specific contaminant, disinfectant residual, or TT that incurred the violation.
- (2) Monitoring and testing procedure violations. Each PN must include the following statement, including the bracketed language necessary to complete the notice, for all monitoring and testing procedure 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 your drinking water meets health standards. During [compliance period], we [use either the phrase “did not monitor or test” or “did not

complete all monitoring or testing,” whichever is more applicable] for [contaminant(s)], and therefore cannot be sure of the quality of your drinking water during that time.”

(3) Language to encourage PN distribution to all persons served. Each PN must include the following statement, where applicable:

“Please share this information with all the other people who drink this water, especially those who may not have received this notice directly, such as 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.”

40.5(6) *PN for new billing units or new customers.*

a. Community water systems (CWSs). CWSs must give a copy of the most recent PN for any continuing violation or other ongoing situations requiring PN to all new billing units or new customers prior to or at the time service begins.

b. Noncommunity water systems (NCWSs). NCWSs (TNCs and NTNCs) must continuously post the PN in conspicuous locations in order to inform new consumers of any continuing violation or other situation requiring PN for as long as the violation or other situation persists.

40.5(7) *Special PNs.*

a. Availability of unregulated contaminant monitoring results.

(1) Applicability. The owner or operator of a CWS or NTNC required to monitor under the federal unregulated contaminant monitoring rule must notify persons served by the system of the availability of such sample results no later than 12 months after the monitoring results are known.

(2) Form and manner. The special PN must follow the Tier 3 PN requirements in 40.5(4) “c” and must identify a person and provide the telephone number to contact for information on the monitoring results.

b. Fluoride level between 2.0 and 4.0 mg/L at CWSs or NTNCs.

(1) Applicability. CWSs and NTNCs that exceed the fluoride level of 2.0 mg/L as determined by the last single sample taken in accordance with 567—paragraph 41.3(1) “c” but do not exceed the MCL of 4.0 mg/L must provide the special PN in accordance with this paragraph to persons served. If the NTNC is a school or child care facility serving children under nine years of age, the system shall provide the PN in writing to the legal guardians of each child within the department-specified time period.

(2) Initial PN. A fluoride PN must be provided as soon as practical but no later than three months from the day the system learns of the exceedance. A copy of the notice must also be sent to all new billing units and new customers at the time service begins and to the Public Health Dental Director, Iowa Department of Health and Human Services, Lucas State Office Building, Des Moines, Iowa 50319-0075.

(3) Repeat PN. The PWS must repeat the fluoride PN at least every three months for as long as the fluoride level exceeds 2.0 mg/L. If the PN is posted, it must remain in place for as long as the fluoride level exceeds 2.0 mg/L but in no case less than seven days (even if the exceedance is eliminated). The department may require the repeat PN to be conducted more frequently.

(4) Form and manner. The form and manner of the fluoride PN, including repeat PNs, must follow the Tier 3 PN requirements in 40.5(4) “c.”

(5) Mandatory language. A fluoride PN must contain the following language, including the bracketed language necessary to complete the notice:

“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, called dental fluorosis. The drinking water provided by your public water system [PWS name] has a fluoride concentration of [analytical result] mg/L.

“Dental fluorosis, in its moderate or severe forms, may result in a brown staining and 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 4.0 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 4.0 mg/L of fluoride, but we are required to notify you when we discover that the fluoride levels in your drinking water exceed 2.0 mg/L because of this cosmetic dental problem.

“For more information, please call [PWS contact person] of [PWS name] at [telephone number]. Some home water treatment units are also available to remove fluoride from drinking water. In Iowa, home water treatment units are regulated under 641—Chapter 14, and the water treatment unit registration program is administered by the Health & Safety Division of the Iowa Department of Inspections, Appeals, and Licensing. In addition, you may call the National Sanitation Foundation (NSF) International at 1-877-867-3435.”

c. Nitrate level between 10 and 20 mg/L for NCWSs, where allowed by the department. NCWSs granted permission by the department under 567—paragraph 41.3(1)“a” to exceed the nitrate MCL must:

- (1) Provide PN to persons served according to the Tier 1 PN requirements under 40.5(2)“a” and “b.”
- (2) Provide continuous posting of the fact that nitrate levels exceed 10 mg/L and the potential health effects of exposure, according to the Tier 1 PN delivery requirements under 40.5(2)“c” and the content requirements under 40.5(5).

d. Repeated failure to conduct source water monitoring for Cryptosporidium.

(1) Applicability. The owner or operator of any PWS that is required to monitor source water under 567—43.11(455B) must notify persons served by the system that required monitoring has not been completed no later than 30 days after the system has failed to collect samples in any three months of monitoring, as specified in 567—paragraph 43.11(3)“a.” This special PN must be repeated as specified in 40.5(3).

(2) Form and manner. This special PN must follow the Tier 2 PN requirements in 40.5(3) and be presented as required in 40.5(5)“b.”

(3) Mandatory language. This special PN must contain the following language, including the language necessary to fill in the brackets.

“We are required to monitor the source of your drinking water for *Cryptosporidium*. Results of the monitoring are to be used to determine whether water treatment at the [treatment plant name] is sufficient to adequately remove *Cryptosporidium* from your drinking water. We are required to complete this monitoring and make this determination by [required bin determination date]. We [“did not monitor or test” or “did not complete all monitoring or testing”] on schedule and, therefore, we may not be able to determine by the required date what treatment modifications, if any, must be made to ensure adequate *Cryptosporidium* removal. Missing this deadline may, in turn, jeopardize our ability to have the required treatment modifications, if any, completed by the required deadline of [date]. For more information, please call [PWS contact person] of [PWS name] at [telephone number].”

(4) Each special PN must include a description of what the system is doing to correct the violation and when the system expects to return to compliance or resolve the situation.

e. Failure to determine bin classification or mean Cryptosporidium level.

(1) Applicability. The owner or operator of a PWS that is required to determine a bin classification under 567—subrule 43.11(5) must notify persons served by the system that the required determination has not been made no later than 30 days after the system has failed to report the determination, as specified in 567—paragraph 43.11(5)“c.” This special PN must be repeated as specified in 40.5(3). This PN is not required if the system is in compliance with a department-approved schedule to address the violation.

(2) Form and manner. This special PN must follow the Tier 2 PN requirements in 40.5(3) and be presented as required in 40.5(5) “b.”

(3) Mandatory language. This special PN must contain the following language, including the language necessary to fill in the brackets.

“We are required to monitor the source of your drinking water for *Cryptosporidium* in order to determine by [date] whether water treatment at the [treatment plant name] is sufficient to adequately remove *Cryptosporidium* from your drinking water. We have not made this determination by the required date. Our failure to do this may jeopardize our ability to have the required treatment modifications, if any, completed by the required deadline of [date]. For more information, please call [PWS contact person] of [PWS name] at [telephone number].”

(4) Each special PN must include a description of what the system is doing to correct the violation and when the system expects to return to compliance or resolve the situation.

40.5(8) *PN by department on behalf of a PWS.* The department may provide PN on behalf of a PWS owner or operator in compliance with this rule. However, the PWS owner or operator remains responsible for ensuring the PN requirements of this rule are met.

40.5(9) *Small water system—operation permit PN requirements.* When the department determines that a small PWS cannot promptly comply with one or more MCLs pursuant to 567—Chapter 41 and that there is no immediate, unreasonable health risk to persons served by the system, an operation permit will be drafted with interim contaminant levels or a compliance schedule. The department may require the applicant to present the reasons the small water system cannot come into immediate compliance. Prior to issuance of a final permit with a compliance schedule, notice and opportunity for public participation must be given in accordance with this subrule. The PN shall be circulated in a manner designed to inform interested and potentially interested persons of any proposed interim contaminant level or compliance schedule.

a. Small water system—PN preparation. A PN shall be prepared by the department and circulated by the applicant within its geographical area through publication in a local newspaper with general circulation or through mail or direct delivery to the system’s customers. The PN shall be mailed by the department to any person upon request.

b. Small water system—public comment period. The department shall provide a period of at least 30 days following the PN date during which time interested persons may submit their written views on the tentative determinations with respect to the operation permit. All written comments submitted during the 30-day comment period shall be retained by the department and considered in the formulation of the department’s final determination with respect to the operation permit. The department may extend the comment period.

c. Small water system—PN content. A PN of a proposed operation permit shall contain at least the following:

- (1) The name, address, website, and telephone number of the department.
- (2) The name and address of the applicant.
- (3) A statement of the department’s tentative determination to issue the operation permit.
- (4) A brief description of each applicant’s operations that necessitate the proposed permit conditions.

- (5) A brief description of the procedures for the formulation of final determinations, including the 30-day comment period required by 40.5(9) “b.”

- (6) The right to request a public hearing pursuant to 40.5(9) “d” and any other means by which interested persons may influence or comment upon those determinations.

- (7) The website location where interested persons may obtain further information, request a copy of the proposed operation permit prepared pursuant to this subrule, and inspect and copy the application forms and related documents.

d. Small water system—public hearings. The applicant or any interested agency, person or group of persons may request or petition for a public hearing with respect to a proposed operation permit.

- (1) Any such request or petition shall:

1. Clearly state the issues to be addressed at a hearing;
2. Be filed with the department within the 30-day period prescribed in 40.5(9)“b”; and
3. Indicate the interest of the party filing the petition or request and the reasons why a hearing is warranted.

(2) The department shall hold an informal and noncontested case hearing if there is a significant public interest in holding a hearing, including the filing of requests or petitions for a hearing. Frivolous or insubstantial hearing requests may be denied by the department. Instances of doubt should be resolved in favor of holding a hearing.

(3) Any hearing held pursuant to this subrule shall be held in the geographical area of the system, or other appropriate area, at the department’s discretion.

(4) The department may, as appropriate, consider related groups of permit applications at a hearing.

e. Small water system—PN for public hearings. PN of any hearing held pursuant to this subrule shall:

(1) Be circulated at least as widely as the notice under 40.5(9)“a” at least 30 days in advance of the hearing.

(2) Contain at least the following:

1. The name, address, website, and telephone number of the department;
2. The name and address of each applicant whose application will be considered at the hearing;
3. A brief reference to the previously issued PN, including identification number and date of issuance;
4. The time and location for the hearing;
5. The purpose of the hearing;
6. A concise statement of the issues raised by the person requesting the hearing;
7. The website location where interested persons may obtain further information, request a copy of the draft operation permit or modification prepared pursuant to this subrule, and inspect and copy the application forms and related documents; and
8. A brief description of the nature of the hearing, including the rules and procedures to be followed.

f. Small water system—operation permit decision. The department shall issue or deny an operation permit within 30 days after a public hearing held pursuant to this subrule, or, if no public hearing is held, within 30 days after the end of the period for requesting a hearing.

567—40.6(455B) Lead consumer notice and public education (PE) for lead action level exceedance (ALE).

40.6(1) Lead consumer notice.

a. Reporting. All CWSs and NTNCs must provide a consumer notice of the individual lead tap water monitoring results required by 567—paragraph 41.4(1)“c” to the persons served at the tested sites (taps). Any system with a lead ALE shall also implement the PE requirements of 40.6(2).

b. Consumer notice timing. A system must provide the notice as soon as practical but no later than 30 days after the system learns of the tap monitoring results.

c. Consumer notice content. A consumer notice must contain the following:

- (1) Results of the lead tap water monitoring for the tested tap,
- (2) An explanation of the health effects of lead,
- (3) A list of steps consumers can take to reduce exposure to lead in drinking water,
- (4) PWS contact information, and
- (5) The lead MCLG of 0 mg/L, the 90th percentile lead AL of 0.015 mg/L, and the definitions for these two terms from 567—40.2(455B).

d. Consumer notice delivery. The notice must be provided to persons served at the tested tap either by mail or by another department-approved method. For example, upon department approval,

an NTNC could post results on a bulletin board in the facility. Systems must provide the notice to customers at sample taps tested, including consumers who do not receive water bills.

e. Inclusion of copper results. Systems may also include copper testing results in the consumer notice, along with the 90th percentile copper ALE of 1.3 mg/L, copper MCLG of 1.3 mg/L, and copper health effects language.

40.6(2) Lead PE for lead ALE. Systems with a lead ALE based on tap water samples collected in accordance with 567—paragraph 41.4(1)“c” shall prepare and deliver PE materials and sample the tap water of any customer who requests it in accordance with this subrule.

a. Content of materials. Systems must include the following statements in written PE materials in the same order as listed in this paragraph. Language in 40.6(2)“a”(1), 40.6(2)“a”(2), and 40.6(2)“a”(5) must be included exactly as written, except for the bracketed text for which the system must substitute system-specific information. Any additional information presented by a system must be consistent with this paragraph and be in plain language that can be understood by the general public. Systems must submit all PE materials to the department prior to delivery. The department may require a system to obtain approval of the content of PE materials prior to delivery. PE materials must:

(1) Include the following statements exactly as written.

“IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER. [Insert system name] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

“Health effects of lead. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother’s bones, which may affect brain development.”

(2) Discuss lead and sources of lead, as follows:

1. Explain what lead is.
2. Explain possible sources of lead in drinking water, explain how lead enters drinking water, and include information on home/building plumbing materials and service lines that may contain lead.
3. Discuss other important sources of lead exposure in addition to drinking water (e.g., paint).

(3) Discuss steps the consumers can take to reduce their exposure to lead in drinking water, as follows:

1. Encourage running the water to flush out the lead.
2. Explain concerns with using hot water from the tap and specifically caution against the use of hot water for preparing baby formula.
3. Explain that boiling the water does not reduce lead levels.
4. Discuss other options consumers can take to reduce exposure to lead in drinking water, such as alternative sources or water treatment.
5. Suggest that parents have their child’s blood tested for lead.

(4) Explain why there are elevated levels of lead in the system’s drinking water (if known) and what the system is doing to reduce the lead levels in homes/buildings in this area.

(5) Include the following statement exactly as written.

“For more information, call us at [insert your telephone number] or visit our website at [insert your website link here]. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA’s website at www.epa.gov/lead or contact your health care provider.”

(6) Include the following if the system is a CWS:

1. Tell consumers how to get their water tested.

2. Discuss lead in plumbing components and the difference between low lead and lead free.

b. Outreach to non-English speaking consumers. For PWSs serving a large proportion of non-English speaking consumers, as determined by the department, the PE materials must contain information about the importance of PE in the appropriate language(s) or contain a telephone number or address where persons served may contact the system to obtain a translated copy of the PE materials or to request assistance in the appropriate language.

c. PE materials delivery by CWS. A CWS that exceeds the lead ALE on the basis of tap water samples collected in accordance with 567—paragraph 41.4(1) “*c*” must conduct the following PE tasks within 60 days of the date of notification of the ALE. All PE materials must meet the content requirements of paragraph 40.6(2) “*a*.”

(1) Deliver PE materials to all bill-paying customers.

(2) Contact customers who are most at risk by delivering PE materials to local public health agencies, even if they are not located within the system’s service area, along with an informational notice that encourages distribution to all the organization’s potentially affected customers or the CWSs users. Systems must contact the local public health agencies directly by phone or in person. The local public health agencies may provide a specific list of additional community-based organizations serving target populations, which may include organizations outside the system’s service area. If such lists are provided, systems must deliver PE materials to all organizations on the provided lists.

(3) Contact customers who are most at risk by delivering PE materials to the following organizations that are located within the system’s service area, along with an informational notice that encourages distribution to all the organization’s potentially affected customers or the CWSs users:

1. Public and private schools or school boards;
2. Women, Infants, and Children (WIC) and Head Start programs;
3. Public and private hospitals and medical clinics;
4. Pediatricians;
5. Family planning clinics; and
6. Local welfare agencies.

(4) Make a good-faith effort to locate the following organizations within the service area and deliver PE materials, along with an informational notice encouraging distribution to all potentially affected customers or users. This effort to contact at-risk customers may include requesting a contact list of these organizations from the local public health agencies, even if the agencies are not located within the system’s service area:

1. Licensed child care centers;
2. Public and private preschools;
3. Obstetricians, gynecologists, doulas, and midwives.

(5) No less often than quarterly, provide information with each water bill as long as the system exceeds the lead AL. The water bill must include the following statement exactly as written, except for the text in brackets for which the system must substitute system-specific information:

“*[Insert system name]* found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information, please call *[insert system telephone number]* or visit *[insert system website link here]*.”

The message or delivery mechanisms can be modified in consultation with the department; specifically, the department may allow a separate mailing of PE materials to customers if the system cannot place the information on water bills.

(6) Post PE material on the system’s website if the system serves a population greater than 100,000.

(7) Submit a press release to newspaper, television, and radio stations.

(8) In addition to those items previously listed, systems must implement at least three activities from one or more of the following categories. The educational content and appropriate activities must be determined in consultation with the department.

1. Public service announcement;

2. Paid advertisement;
3. Public area information displays;
4. Emails to customers;
5. Public meetings;
6. Household deliveries;
7. Targeted individual customer contact;
8. Direct material distribution to all multifamily homes and institutions; and
9. Other department-approved methods.

d. Continuing and special population PE by a CWS.

(1) As long as a CWS exceeds the AL, it must repeat the following activities:

1. Repeat the tasks in 40.6(2)“c”(1), 40.6(2)“c”(2), and 40.6(2)“c”(8) every 12 months.
2. Repeat the tasks in 40.6(2)“c”(5) with each billing cycle.
3. A CWS serving a population greater than 100,000 shall post and retain PE materials on a publicly accessible website pursuant to 40.6(2)“c”(6).

4. Repeat the task in 40.6(2)“c”(7) twice every 12 months on a schedule agreed upon with the department. The department can allow activities in 40.6(2)“c” to extend beyond the 60-day requirement on a case-by-case basis; however, this extension must be approved in writing by the department in advance of the 60-day deadline, and the system must already have initiated PE activities prior to the end of the 60-day deadline.

(2) A CWS meeting either of the following criteria may apply to the department in writing for reduced PE and community notice requirements:

1. The CWS is a facility, such as a prison or hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing POU treatment devices; or
2. The CWS provides water as part of the cost of services provided and does not separately charge for water consumption.

If the department approves the request in writing, the CWS is not required to include the language in 40.6(2)“a”(6) and must deliver the PE materials in accordance with 40.6(2)“e,” in lieu of 40.6(2)“c” and “d.”

(3) A CWS serving 3,300 or fewer people may limit certain aspects of its PE programs as follows:

1. The system must implement at least one of the activities in 40.6(2)“c”(8).
2. The system may limit the distribution of the PE materials in 40.6(2)“c”(2) and 40.6(2)“c”(3) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.
3. The department may waive the requirements of 40.6(2)“c”(7) for the system provided it distributes notices to every household served.

e. Delivery of and continuing PE by an NTNC.

(1) PE delivery by an NTNC. Within 60 days of the date of notification of the ALE, an NTNC shall deliver the specified PE materials as follows:

1. Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and
2. Distribute informational pamphlets or brochures on lead in drinking water to each person served by the NTNC. The department may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as at least the same coverage is achieved. If the system serves children 18 years of age and under, such as a school or child care facility, the PE materials must be provided to the parents or legal guardians of the children.

(2) Continuing PE by an NTNC. An NTNC shall repeat the tasks in 40.2(2)“e”(1) at least once during each calendar year in which the system exceeds the lead AL. The department can allow activities in 40.2(2)“e”(1) to extend beyond the 60-day requirement on a case-by-case basis; however, this extension must be approved in writing by the department in advance of the 60-day deadline, and the system must already have initiated PE activities prior to the end of the 60-day deadline.

f. Discontinuation of PE activities. A CWS or NTNC may discontinue delivery of PE materials if it has met the lead AL during the most recent six-month monitoring period conducted pursuant to 567—paragraph 41.4(1)“c.” Such systems shall recommence PE in accordance with this subrule if it subsequently exceeds the lead AL during any monitoring period.

g. Supplemental monitoring and notification of results. A system that fails to meet the lead AL on the basis of tap samples collected in accordance with 567—paragraph 41.4(1)“c” shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample, nor is the system itself required to collect and analyze the sample.

567—40.7(455B) Consumer confidence reports (CCRs).

40.7(1) Applicability and purpose. This rule applies to all CWSs and establishes the requirements for the content of annual CCRs that CWSs must deliver to their customers. These CCRs must contain information on the quality of the water delivered by the systems and characterize the risks (if any) from exposure to contaminants in the drinking water in an accurate and understandable manner. The department may assign PN requirements and assess administrative penalties to any CWS that fails to fulfill the requirements of this rule.

40.7(2) CCR delivery frequency.

a. Existing CWS. Existing CWSs must deliver CCRs annually by July 1.

b. New CWSs. New CWSs must deliver their first CCR by July 1 of the year after their first full calendar year in operation and annually thereafter.

c. CWSs that sell water to another CWS. A CWS that sells water to another CWS must deliver the applicable information in 40.3(7) to the buyer (or consecutive) system:

(1) Annually by April 1, or

(2) On a date mutually agreed upon by the seller and the purchaser and specifically included in a contract between the parties.

When a consecutive system sells water to another CWS, the seller must provide all applicable information in 40.3(7) to the CWS buying the water from them.

40.7(3) CCR content—source water identification and definitions. Each annual CCR must contain the following information.

a. Source water identification. A CCR must identify the source(s) of water delivered by the CWS, including:

(1) Type of water (e.g., SW, groundwater (GW), GW purchased from another PWS).

(2) Commonly used name of the aquifer, reservoir, or river (if any) and location of the body(ies) of water.

(3) The availability of a source water assessment and the means to obtain it if an assessment has been completed. Systems are encouraged to highlight significant sources of contamination in the source water area if information is available. Where a system has received a source water assessment from the department, the CCR must include a brief summary of the system’s susceptibility to potential sources of contamination using language provided by the department or its designee or written by the owner or operator.

b. Definitions. Each CCR using any of the following terms must include the applicable definitions of MCL, MCLG, MRDL, and MRDLG from 40 CFR §141.153.

(1) A CCR that contains data on a contaminant for which EPA has set a TT or an AL must include the applicable definitions from 40 CFR §141.153.

(2) A CCR that contains information regarding a Level 1 or Level 2 assessment required under 567—subrule 41.2(1) must include the applicable assessment definitions from 40 CFR §141.153.

40.7(4) CCR content—information on detected contaminants. This subrule specifies the information required in each CCR for contaminants subject to mandatory monitoring as follows: regulated contaminants subject to an MCL, AL, MRDL, or TT; contaminants for which monitoring is required by either 40 CFR §141.40 (unregulated contaminants), 567—subrule 41.9(1) (sodium), or 567—41.13(455B) (other contaminants); and, except as provided under 40.7(6)“a,” contaminants

with department-required monitoring that are detected in the finished water (disinfection byproducts (DBPs) or microbial contaminants), and *Cryptosporidium*. Ammonia monitoring conducted pursuant to 567—subrule 41.9(2) is not subject to this paragraph. For the purposes of this subrule, “detected” means at or above the levels prescribed as follows: inorganic contaminants in 567—subparagraph 41.3(1)“e”(1); VOCs and SOCs in 567—paragraph 41.5(1)“b”; radionuclide contaminants in 567—paragraph 41.8(1)“c”; DBPs in 567—paragraph 83.6(7)“a”(6)“3”; and other contaminants with HAs, as assigned by the department.

a. Contaminant data must be displayed in one or more tables. Any additional monitoring results that a CWS chooses to include in its CCR must be displayed separately.

(1) Contaminant data must be derived from data collected to comply with departmental monitoring and analytical requirements. Where a system is allowed to monitor for contaminants less often than once a year, the CCR table(s) must include the results, the most recent sampling date, and a brief statement indicating that the data in the CCR are from the most recent testing done in accordance with the regulations. No data older than five years need be included.

(2) For detected regulated contaminants listed in Appendix A to 40 CFR Part 141, Subpart O, the table(s) must contain:

1. The contaminant MCL, expressed as a number equal to or greater than 1.0 (as provided in Appendix A to 40 CFR Part 141, Subpart O);
2. The contaminant MCLG, expressed in the same units as the MCL;
3. If there is no MCL for a detected contaminant, the table(s) must indicate that there is a TT, or specify the AL applicable to that contaminant, and the CCR must include the definition for TT or AL, as appropriate.

(3) For contaminants subject to an MCL, except turbidity and *E. coli*, the table(s) must contain the highest contaminant level used to determine compliance with a primary drinking water standard and the range of detected levels, expressed in the same units as the MCL, as follows:

1. When MCL compliance is determined annually or less frequently: the highest detected level at any sampling point and the range of detected levels.
2. When MCL compliance is determined by calculating a running annual average (RAA) of all samples taken at a sampling point: the highest average of any of the sampling points and the range of all sampling points. For TTHM and HAA5 MCLs, systems must include the highest locational running annual average (LRAA) for TTHM and HAA5 and the range of individual sample results for all monitoring locations. If more than one location exceeds the TTHM or HAA5 MCL, the system must include the LRAAs for all locations that exceed the MCL.

3. When MCL compliance is determined on a systemwide basis by calculating an RAA of all samples at all sampling points: the average and range of detection. When rounding of results to determine MCL compliance is allowed by the regulations, rounding should be done prior to multiplying the results by the factor in Appendix A to 40 CFR Part 141, Subpart O.

(4) For turbidity: The highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits specified in 567—43.5(455B), 567—43.9(455B), or 567—43.10(455B) for the filtration technology being used when turbidity is being reported pursuant to the cited rules. The CCR should include an explanation of the reasons for measuring turbidity.

(5) For lead and copper: the 90th percentile value of the most recent round of sampling and the number of sampling sites exceeding the AL.

(6) For *E. coli* analytical results under 567—subrule 41.2(1): the total number of positive samples.

(7) The likely source(s) of detected contaminants to the best of the owner’s or operator’s knowledge. If specific contaminant information is in sanitary surveys or source water assessments, it should be used. If the owner or operator lacks specific information on the likely contaminant source, the CCR must include one or more of the typical contaminant sources (from Appendix A to 40 CFR Part 141, Subpart O) that are most applicable to the system.

(8) If a CWS distributes water to its customers from multiple hydraulically independent distribution systems that are fed by different raw water sources, the CCR should identify each separate distribution system and the table(s) should contain a separate column for each service area. Alternatively, systems may produce separate CCRs tailored to include data for each service area.

(9) The table(s) must clearly identify any data indicating MCL, MRDL, or TT violations, and the CCR must contain a clear and readily understandable explanation of the violation, including:

1. The length of the violation;
2. The potential adverse health effects;
3. Actions taken by the system to address the violation; and
4. The relevant language from Appendix A to 40 CFR Part 141, Subpart O, describing the potential health effects.

(10) For detected unregulated contaminants for which monitoring is required, except *Cryptosporidium*, the table(s) must contain the average and range at which the contaminant was detected. The CCR may include a brief explanation of the reasons for monitoring for unregulated contaminants.

(11) CWSs may list the most recent results of the special sodium monitoring requirement, according to 567—subrule 41.11(1), in the CCR instead of providing a separate PN.

(12) If a contaminant that does not have an MCL, MRDL, TT, or AL is detected in the water, the PWS must contact the department for the specific health effects language, health advisory level (HAL), and contamination sources.

b. If monitoring indicates that *Cryptosporidium* may be present in the source water or the finished water, or that radon may be present in the finished water, the CCR must include:

- (1) A summary of the *Cryptosporidium* monitoring results;
- (2) The radon monitoring results; and
- (3) An explanation of the results' significance.

c. If a system has performed additional monitoring that indicates the presence of other contaminants in the finished water, it must report any results that may indicate a health concern. To determine if results may indicate a health concern, a CWS can inquire about a current or proposed MCL, MRDL, TT, AL, or HA by contacting the department or by calling the National Safe Drinking Water Hotline (800.426.4791). The department considers the detection of a contaminant above a proposed MCL or HAL to indicate possible health concerns. For such contaminants, the CCR should include:

- (1) The monitoring results; and
- (2) An explanation of the results' significance, noting the existence of an HA or a proposed regulation.

d. If a system was required to comply with the federal Information Collection Rule pursuant to the 40 CFR Part 141, it must include the results of monitoring in compliance with 40 CFR §141.142 and 141.143. These results need only be included for five years from the date of the sample or until any of the detected contaminants become regulated and subject to routine monitoring requirements, whichever comes first.

40.7(5) CCR content—compliance with 567—Chapters 41, and 43. In addition to the requirements of 40.7(4)“a”(8), the CCR must note any violation of a requirement listed below that occurred during the year covered by the report and include a clear and readily understandable explanation of the violation, any potential adverse health effects, and the steps the system has taken to correct the violation. The system must note any violation of the following:

a. Monitoring and reporting of compliance data pursuant to 567—Chapters 41 and 43, including any contaminant with a MCL, TT, AL, or HA;

b. The following TTs:

- (1) Filtration and disinfection prescribed by 567—43.5(455B). For systems that have failed to install adequate filtration or disinfection equipment or processes, or have had a failure of such

equipment or processes that constitutes a violation, the CCR must include the following statement with the explanation of potential adverse health effects:

“Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.”

(2) Lead and copper control requirements. For systems that fail to take one or more actions prescribed by 567—Chapters 41 and 43 pertaining to lead and copper, the CCR must include the relevant language from Appendix A to 40 CFR Part 141, Subpart O.

(3) Acrylamide and epichlorohydrin control technologies. Systems in violation of 567—subparagraph 41.5(1)“b”(3) must include the relevant language from Appendix A to 40 CFR Part 141, Subpart O, in their CCR.

c. Recordkeeping of compliance data pursuant to 567—Chapters 41 and 43;

d. Special monitoring requirements; and

e. Violation of an operation permit compliance schedule, administrative order, or judicial order.

40.7(6) *CCR content—operation permit or administrative order with a compliance schedule.* If a system has been issued a compliance schedule with an extension for compliance, the CCR must contain:

a. An explanation of the reasons for the extension;

b. The date on which the extension was issued;

c. A brief status report on the steps the system is taking to install treatment, find alternative sources of water, or otherwise comply with the compliance schedule; and

d. A notice of any opportunity for public input in the review or renewal of the compliance schedule.

40.7(7) *CCR content—mandatory CCR language explaining contaminant occurrence.* CCRs must contain a brief explanation regarding contaminants that may reasonably be expected to be found in drinking water, including bottled water. This explanation may include the statements in 40.7(7)“a”(1) through 40.7(7)“a”(3). Subparagraph 40.7(7)“b”(4) is provided as a minimal alternative to 40.7(7)“b”(1) through 40.7(7)“b”(3). Systems may also develop their own comparable language. A CCR must include the language of 40.7(8).

a. “The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.”

b. “Contaminants that may be present in source water include:”

(1) “Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.”

(2) “Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.”

(3) “Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.”

(4) “Organic chemical contaminants, including synthetic and volatile organics, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.”

(5) “Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.”

c. “In order to ensure that tap water is safe to drink, the department prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.”

d. “Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the National Safe Drinking Water Hotline ((800)426-4791).”

40.7(8) *Required additional health information.*

a. All systems.

(1) All CCRs must prominently display the following statement:

“Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the national Safe Drinking Water Hotline ((800)426-4791).”

(2) Systems may write their own educational statements for arsenic in 40.7(8) “*b*”(1), nitrates in 40.7(8) “*c*,” and lead in 40.7(8) “*d*” but only in consultation with the department.

b. Arsenic.

(1) A CWS that detects arsenic at levels above 0.005 mg/L and less than or equal to 0.010 mg/L must include in its CCR a short information statement about arsenic, using language such as:

“While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.”

(2) A CWS that detects arsenic above 0.010 mg/L and less than or equal to 0.05 mg/L must include in its CCR the arsenic health effects language in Appendix A to 40 CFR Part 141, Subpart O.

c. Nitrates.

(1) A system that detects nitrate at levels above 5.0 mg/L (half the MCL) but below the MCL must include in its CCR a short informational statement about the impacts of nitrate on children, using language such as:

“Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.”

(2) A system that detects nitrite at levels above 0.50 mg/L (half the MCL) but below the MCL must include in its CCR a short informational statement about the impacts of nitrite on children, using language such as:

“Nitrite in drinking water at levels above 1 ppm is a health risk for infants of less than six months of age. High nitrite levels in drinking water can cause blue baby syndrome. If you are caring for an infant you should ask advice from your health care provider.”

d. Lead. All systems must include in their CCR a short informational statement about lead in drinking water and the effects it has on children, using language such as:

“If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from material and components associated with service lines and home plumbing. [insert name of system] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the National Safe Drinking Water Hotline (800)426-4791 or at www.epa.gov/safewater/lead.”

e. Total trihalomethanes (TTHMs). A CWS that detects TTHMs above 0.080 mg/L but below the MCL in 567—subrule 41.5(1) as an annual average, monitored and calculated under the provisions of 567—paragraph 41.5(1)“*e*,” must include in its CCR the health effects language for total trihalomethanes listed in Appendix A to 40 CFR Part 141, Subpart O.

40.7(9) Additional mandatory CCR requirements.

a. The CCR must include the telephone number of the owner, operator, or designee of the CWS as a source of additional information concerning the report.

b. In communities with a large proportion of non-English speaking residents, as determined by the department, the CCR must contain information regarding the importance of the CCR in the appropriate language(s) or contain a telephone number or address where such residents may contact the system to obtain a translated copy of the report or assistance in the appropriate language.

c. The CCR must include information (e.g., time and place of regular board meetings) about opportunities for public participation in decisions that may affect the quality of the water.

d. Systems may include such additional information as they deem necessary for the PE, consistent with, and not detracting from, the purpose of the CCR.

e. Systems required to comply with the GW rule (567—41.7(455B)) must include the following in the CCR, when applicable:

(1) Any GW system that receives notice from the department of a significant deficiency must inform its customers of any significant deficiency that is uncorrected at the time of the next CCR. The system must continue to inform the public annually until the department determines that particular deficiency is corrected. Each CCR must include the following:

1. The nature of the particular significant deficiency and the date the deficiency was identified by the department; and

2. For each significant deficiency, the department-approved plan and schedule for correction, including interim measures, progress to date, and any interim measures completed.

If directed by the department, a system with one or more significant deficiencies that have been corrected before the next CCR must inform its customers of the deficiencies, how the deficiencies were corrected, and the date(s) of correction.

(2) Any GW system that receives notice from the department or laboratory of a fecal indicator-positive GW source sample that is not invalidated under 567—paragraph 41.7(3)“*d*” must inform its customers of such a sample in the next CCR. The system must continue to inform the public annually until the department determines that the fecal contamination in the GW source is addressed under 567—paragraph 41.7(4)“*a*.” Each CCR must include the following:

1. The fecal contamination source (if known) and the dates of the fecal indicator-positive GW source samples;

2. Whether the fecal contamination in the GW source has been addressed under 567—paragraph 41.7(4)“*a*” and the date of such action;

3. For each fecal contamination in the GW source that has not been addressed under 567—paragraph 41.7(4)“*a*,” the department-approved plan and schedule for correction, including interim measures, progress to date, and any interim measures completed; and

4. The potential health effects, using the “Fecal coliform or *E. coli*” or “Fecal Indicators (enterococci or coliphage)” health effects language in Appendix A to 40 CFR Part 141, Subpart O.

f. Pursuant to 567—subrule 41.2(1), any system required to conduct a Level 1 or Level 2 assessment that is not due to an *E. coli* MCL violation must include in the CCR the statements below in 70.7(9)“*f*”(1) through 70.7(9)“*f*”(3), as appropriate, filling in the blanks accordingly and including the appropriate statements in 40.7(9)“*f*.”

(1) “Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that the potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution.

When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.”

(2) “During the past year, we were required to conduct [*insert number of required Level 1 assessments*] Level 1 assessment(s). [*Insert number of completed Level 1 assessments*] Level 1 assessment(s) were completed. In addition, we were required to take [*insert number of required corrective actions*] corrective actions, and we completed [*insert number of completed corrective actions*] of these actions.”

(3) “During the past year, [*insert number of required Level 2 assessments*] Level 2 assessments were required to be completed for our water system. [*Insert number of completed Level 2 assessments*] Level 2 assessment(s) were completed. In addition, we were required to take [*insert number of required corrective actions*] corrective actions, and we completed [*insert number of completed corrective actions*] of these actions.”

(4) Any system that has failed to complete all the required assessments or correct all identified sanitary defects is in violation of the TT requirement and must also include one or both of the following statements in its CCR, as appropriate:

1. “During the past year, we failed to conduct all of the required assessment(s).”
2. “During the past year, we failed to correct all identified defects that were found during the assessment.”

g. Pursuant to 567—subrule 41.2(1), any system required to conduct a Level 2 assessment due to an *E. coli* MCL violation must include the statements in 70.7(9)“g”(1) and 70.7(9)“g”(2) in its CCR as appropriate, filling in the blanks accordingly and including the appropriate text in 70.7(9)“g”(3).

(1) “*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.”

(2) “We were required to complete a Level 2 assessment because we found *E. coli* bacteria in our water system. In addition, we were required to take [*insert number of required corrective actions*] corrective actions, and we completed [*insert number of completed corrective actions*] of these actions.”

(3) Any system that has failed to complete the required assessment or correct all identified sanitary defects is in violation of the TT requirement and must also include one or both of the following statements in its CCR, as appropriate:

1. “We failed to conduct the required assessment.”
2. “We failed to correct all sanitary defects that were identified during the assessment that we conducted.”

h. Pursuant to 567—subrule 41.2(1), if a system detects *E. coli* and has violated the *E. coli* MCL, in addition to completing the CCR table(s) as required in 40.7(4), the system must include in its CCR one or more of the following statements to describe any noncompliance, as applicable:

(1) “We had an *E. coli*-positive repeat sample following a total coliform-positive routine sample.”

(2) “We had a total coliform-positive repeat sample following an *E. coli*-positive routine sample.”

(3) “We failed to take all required repeat samples following an *E. coli*-positive routine sample.”

(4) “We failed to test for *E. coli* when any repeat sample tested positive for total coliform.”

i. Pursuant to 567—subrule 41.2(1), if a system detects *E. coli* and has not violated the *E. coli* MCL, in addition to completing the CCR table(s) as required in 40.7(4), the system may include in its

CCR a statement that explains that although the system has detected *E. coli*, the system is not in violation of the *E. coli* MCL.

40.7(10) CCR delivery.

a. Required CCR recipients. Each CWS must mail or otherwise directly deliver one copy of the CCR to each customer.

(1) Systems must make a good-faith effort to reach consumers who do not get water bills, using department-recommended means. An adequate good-faith effort will be tailored to the consumers who are served by the system but are not bill-paying customers. A good-faith effort would include a mix of methods appropriate to the particular system. Reports could be:

1. Posted on the Internet;
2. Mailed to postal patrons in metropolitan areas;
3. Advertised in the news media;
4. Published in a local newspaper;
5. Posted in public places;
6. Delivered for distribution by single-billed customers such as apartment buildings or large private employers;
7. Delivered to community organizations.

(2) No later than the date the system is required to distribute the CCR to its customers, each CWS must provide the CCR to the department, followed within three months by a certification that the CCR has been distributed to customers and that it is correct and consistent with the previously submitted compliance monitoring data.

(3) No later than the date the system is required to distribute the CCR to its customers, each CWS must deliver the report to any other agency or clearinghouse identified by the department, such as the Iowa department of health and human services or county board of health.

b. CCR availability. Each CWS must make its CCR available to the public upon request. Each CWS serving 100,000 or more persons must post its current year's CCR to a publicly accessible website.

c. CCR mailing requirement waiver for systems serving 10,000 or fewer in population. All CWSs serving fewer than 10,000 persons will qualify for a mailing waiver, except for those systems that have one or more exceedances of a MCL, TT, AL, or HA; an administrative order; a court order; significant noncompliance with monitoring or reporting requirements; or an extended compliance schedule in an operation permit. Even if a PWS qualifies for a mailing waiver, 40.7(10) "a" and "b" still apply to all CWSs. A mailing waiver is not allowed for the CCR covering the year during which one of the previously listed exceptions occurred. Systems qualifying for a mailing waiver must:

- (1) Publish their CCR in one or more local newspapers serving the area where the system is located;
- (2) Inform customers that their CCR will not be mailed, either in the newspapers in which the CCR is published or by other department-approved means; and
- (3) Make their CCR available to the public upon request.

d. CCR mailing requirements waiver for systems serving 500 or fewer in population. All CWSs serving 500 or fewer persons will qualify for a mailing waiver, except for those systems that have one or more exceedances of an MCL, TT, AL, or HA; an administrative order; a court order; significant noncompliance with monitoring or reporting requirements; or an extended compliance schedule in an operation permit. Systems serving 500 or fewer persons that qualify for the waiver may forego the requirements of 40.7(10) "c"(1) and 40.7(10) "c"(2) if they provide notice at least once per year to their customers that the CCR is available upon request, by mail, door-to-door delivery, or by posting in conspicuous places within the service area acceptable to the department. A mailing waiver is not allowed for the CCR covering the year during which one of the previously listed exceptions occurred. Even if a PWS serving 500 or fewer persons qualifies for a mailing waiver, 40.7(10) "a"(2), 40.7(10) "a"(3) and 40.7(10) "b" still apply.

567—40.8(455B) Reporting.**40.8(1)** *Reporting requirements other than for lead and copper.*

a. When required by the department, a PWS shall report to the department within ten days following a test, measurement, or analysis required by this chapter and 567—Chapters 41 and 43, the results of that test, measurement, or analysis in the form and manner prescribed by the department. This shall include reporting of all positive detects within the same specific analytical method.

b. Except where a different reporting period is specified in this rule or 567—Chapters 41 and 43, a PWS shall report to the department within 48 hours after any failure to comply with the monitoring requirements in 567—Chapters 41 and 43. The PWS shall also notify the department within 48 hours of failure to comply with any primary drinking water regulations.

c. The PWS, within ten days of completion of each initial and repeat PNs required in 567—40.5(455B), shall submit to the department a certification that it has fully complied with the PN rules. The certification must include a representative copy of each type of notice distributed, published, posted, or made available to the persons served by the system or to the media.

d. Additional reporting requirements for the GW rule are listed in 567—paragraph 41.7(6)“a.”

e. Additional reporting requirements for the coliform rule are listed in 567—paragraph 41.2(1)“n.”

40.8(2) *Lead and copper reporting requirements.* All PWSs shall report all of the following to the department.

a. *Reporting for tap water monitoring and water quality parameter (WQP) monitoring.*

(1) Except as provided below in 40.8(2)“a”(1)“6,” a system shall report the information specified below for all tap water samples specified in 567—paragraph 41.4(1)“c” and all WQP samples specified in 567—paragraph 41.4(1)“d” within the first ten days following the end of each applicable monitoring period specified in 567—41.4(455B). For monitoring periods with a duration of less than six months, the end of the monitoring period is the last date samples can be collected during that period.

1. The results of all tap samples for lead and copper, including the location of each site and the site selection criteria;

2. Documentation for each tap water lead or copper sample for which the system requests invalidation pursuant to 567—paragraph 41.4(1)“c”(6)“2”;

3. The 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period (calculated in accordance with 567—subparagraph 41.4(1)“b”(3));

4. With the exception of initial tap sampling conducted pursuant to 567—paragraph 41.4(1)“c”(4)“1,” the system shall designate any site that was not sampled during previous monitoring periods and include an explanation of why sampling sites have changed;

5. For samples collected under 567—subparagraphs 41.4(1)“d”(2) through 41.4(1)“d”(5), tap sample results for pH; where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica; and SEP sample results for applicable WQPs; and

6. The results of all WQP samples collected under 567—subparagraphs 41.4(1)“d”(3) through 41.4(1)“d”(6) during each six-month monitoring period in 567—subparagraph 41.4(1)“d”(4) within the first ten days following the end of the monitoring period unless the department has specified a more frequent reporting requirement.

(2) Certain systems that do not have enough taps that can provide first-draw samples and that have met the six-hour stand time criteria, such as an NTNC with 24-hour operation or a CWS meeting the criteria of 40.6(2)“d”(2), must either:

1. If the department has not approved the non-first-draw sample sites, provide written documentation to the department identifying stand times and locations for enough non-first-draw samples to make up its sampling pool under 567—paragraph 41.4(1)“c”(2)“5” by July 1, 2003; or

2. If the department has already approved the non-first-draw sample sites, identify each site that did not meet the six-hour minimum stand time and the length of stand time for that particular

substitute sample (collected pursuant to 567—paragraph 41.4(1)“c”(2)“5.”) Certain systems already include this information in writing with the lead and copper tap sample results required by 567—paragraph 41.4(1)“d”(1)“1.”

(3) At a time specified by the department or, if no specific time is specified, then as early as possible prior to the addition of a new source or any long-term change in water treatment, a system subject to this subparagraph shall send written documentation to the department describing the addition or change. The department must review and approve the addition or change before it is implemented by the system.

1. Systems subject to this subparagraph are those that have optimized corrosion control under 567—subparagraph 43.7(1)“b”(3), are subject to reduced monitoring pursuant to 567—paragraph 41.4(1)“c”(4)“4,” or are subject to a monitoring waiver pursuant to 567—subparagraph 41.4(1)“c”(7).

2. Examples of long-term treatment changes include the addition of a new treatment process or modification of an existing process. Long-term changes can include dose changes to existing chemicals but do not include chemical dose fluctuations associated with daily water quality changes.

3. Examples of modifications include the switching of secondary disinfectants, coagulants, or corrosion inhibitor products. In those instances where prior department approval of a new source addition or long-term treatment change is not required, systems are encouraged to provide notification to the department beforehand to minimize the risk that the new source addition or treatment change will adversely affect optimal corrosion control (OCC).

(4) Any small system applying for or subject to a monitoring waiver under 567—subparagraph 41.4(1)“c”(7) shall provide the following information to the department in writing by the specified deadline:

1. By the start of the first applicable monitoring period in 567—subparagraph 41.4(1)“c”(4), any small system applying for a monitoring waiver shall provide documentation demonstrating that it meets the waiver criteria of 567—paragraphs 41.4(1)“c”(7)“1” and “2.”

2. No later than nine years after the monitoring previously conducted pursuant to 567—paragraph 41.4(1)“c”(7)“2” or 41.4(1)“c”(7)“4,” first bulleted paragraph, each small system desiring to maintain its monitoring waiver shall provide the information required by 567—paragraph 41.4(1)“c”(7)“4,” first and second bulleted paragraphs.

3. No later than 60 days after the system becomes aware that it is no longer free of lead- or copper-containing materials, as appropriate, each small system with a monitoring waiver shall provide written notification, setting forth the circumstances resulting in the lead- or copper-containing materials being introduced into the system and what corrective action, if any, the system plans to remove these materials.

(5) Each GW system that limits WQP monitoring to a subset of entry points under 567—paragraph 41.4(1)“d”(3)“3” shall provide, by the commencement of such monitoring, written correspondence to the department that identifies the selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

b. Source water monitoring reporting.

(1) Systems shall report the sampling results for all source water samples collected within the first ten days following the end of each source water monitoring period in accordance with 567—paragraph 41.4(1)“e.”

(2) With the exception of the first round of source water sampling conducted pursuant to 567—subparagraph 41.4(1)“e”(2), the system shall specify any site that was not sampled during previous monitoring periods and include an explanation of why the sampling point has changed.

c. Corrosion control treatment (CCT) reporting. By the applicable dates in 567—subrule 43.7(1), systems shall report the following:

(1) For systems demonstrating that they have already optimized corrosion control, information required in 567—subparagraph 43.7(1)“b”(2) or 43.7(1)“b”(3).

(2) For systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment (OCCT) under 567—paragraph 43.7(2)“a.”

(3) For systems required to evaluate the effectiveness of CCTs under 567—paragraph 43.7(2)“c,” the information required by that paragraph.

(4) For systems required to install OCC designated by the department under 567—paragraph 43.7(2)“d,” a letter certifying that the system has completed installing that treatment.

d. Source water treatment reporting. By the applicable dates in 567—subparagraph 43.7(3)“b”(1), systems shall provide the following to the department:

(1) If required under 567—subparagraph 43.7(3)“b”(1), their recommendation regarding source water treatment; and

(2) For systems required to install source water treatment under 567—subparagraph 43.7(3)“b”(1), a letter certifying that the system has completed installing the designated treatment within 24 months of the department designation.

e. Lead service line replacement (LSLR) reporting. Systems shall report the following to the department to demonstrate compliance with 567—subrule 43.7(4):

(1) No later than 12 months after the end of a monitoring period in which a system exceeds the lead AL when sampling pursuant to 567—paragraph 43.7(4)“a,” the system must submit written documentation of the material evaluation pursuant to 567—subparagraph 41.4(1)“c”(1), identify the initial number of lead service lines (LSLs) in its distribution system at the time it exceeds the lead AL, and provide its schedule for replacing annually at least 7 percent of the initial number of LSLs in its distribution system.

(2) No later than 12 months after the end of a monitoring period in which a system exceeds the lead AL when sampling pursuant to 567—paragraph 43.7(4)“a,” and every 12 months thereafter, the system shall demonstrate in writing that it has either:

1. Replaced in the previous 12 months at least 7 percent of the initial LSLs (or a greater number of lines specified by the department under 567—paragraph 43.7(4)“e” in its distribution system), or

2. Conducted sampling that demonstrates that the lead concentration in all service line samples from individual line(s), taken pursuant to 567—paragraph 41.4(1)“c”(2)“3,” is less than or equal to 0.015 mg/L. In such cases, the total number of lines replaced plus those lines meeting the criteria in 567—paragraph 43.7(4)“c” shall either equal at least 7 percent of the initial number of lead lines identified under 40.8(2)“e”(1) above or equal the percentage specified by the department under 567—paragraph 43.7(4)“e.” An LSL meeting the criteria of 567—paragraph 43.7(4)“c” may only be used to comply with the 7-percent criteria for a specific year and may not be used again to calculate compliance with the 7-percent criteria in future years.

(3) The annual letter submitted under 40.8(2)“e”(2) above shall contain the following:

1. The number of LSLs scheduled to be replaced during the previous year of the system’s replacement schedule;

2. The number and location of each LSL replaced during the previous year of the system’s replacement schedule; and

3. If measured, the water lead concentration and location of each LSL sampled, the sampling method, and the sampling date.

(4) Any system that collects LSL samples following partial LSL replacement required by 567—subrule 43.7(4) shall report the results within the first ten days of the month following the month in which the system receives the laboratory results or as specified by the department. Systems shall also submit any additional requested information in a time and manner prescribed by the department to verify that all partial LSL replacement activities have taken place.

f. PE program reporting.

(1) Any system subject to the PE requirements in 40.6(2) shall, within ten days after the end of each period in which the system is required to perform PE, send written documentation to the department containing:

1. A demonstration that the system has delivered the PE materials that meet the content and delivery requirements in 40.6(2); and

2. A list of all the newspapers, radio stations, television stations, facilities, and organizations to which the system delivered PE materials during the PE period.

(2) Unless required by the department, a system that previously submitted the information required by 40.7(7)“a” need not resubmit the same information, provided there have been no changes in the distribution list and the system certifies that the PE materials were distributed to the same list previously submitted. This certification is due within ten days after the end of each period in which the system is required to perform PE.

(3) No later than three months following the end of the monitoring period, each system must mail a sample copy of the consumer notice of tap results to the department along with a certification that the notice has been distributed in a manner consistent with 40.6(1).

g. Additional monitoring data reporting. A system that collects sampling data in addition to that required by 567—Chapters 41 and 43 shall report the results to the department within the first ten days following the end of the applicable monitoring period under 567—paragraphs 41.4(1)“c,”“d,” and “e” during which the samples are collected.

40.8(3) PWS operation and maintenance.

a. Required operation records.

(1) Monthly operation records (MORs) shall be completed by all PWSs on forms provided by the department or on similar forms unless a PWS meets all of the following conditions:

1. Supplies an annual average of not more than 25,000 gpd or serves no more than an average of 250 individuals daily;

2. Is a CWS and does not provide any type of treatment, or is a NCWS (NTNC or TNC) that has only a cation-exchange softening or iron/manganese removal treatment unit, and meets the requirements of 40.8(3)“a”(4)“7”;

3. Does not utilize either a SW or an IGW, either in whole or in part, as a water source;

4. Does not use a TT such as blending to achieve compliance with an MCL, TT, AL, or HA.

(2) MORs shall be completed as described in 40.8(3)“a”(4), submitted to the department within ten days after the end of each month the system serves water to the public, and maintained at the facility for department inspection for a period of five years. For CWSs and NTNCs, the MOR must be signed by the certified operator in charge. For TNCs, the MOR, if required by the department, must be signed by the owner or the owner’s designee.

(3) In addition to the requirements of this paragraph, all PWSs using a SW or IGW source must also comply with the applicable recordkeeping requirements in 567—Chapter 43.

(4) MORs shall be completed as follows. Daily monitoring is seven days a week unless otherwise specified by the department.

1. Pumpage or flow. NCWS shall measure and record the total water used each week. Daily measurement and recording is recommended. CWS shall measure and record the total water used each day. Pumpage or flow reporting may be required in an operation permit where needed to verify MCL compliance.

2. General treatment effectiveness. Where treatment is practiced, the intended effect of the treatment shall be measured and recorded at locations and by methods which best indicate effectiveness of the treatment process, at a frequency specified in Appendix A of this chapter.

3. Primary standard treatment effectiveness. Where the raw water quality does not meet the requirements of 567—Chapters 41 and 43 and treatment is practiced to comply with an MCL, AL, TT, or HA, the primary standard constituent or an appropriate department-designated indicator constituent shall be measured and recorded daily. Reporting of these results will be required in the operation permit to verify MCL compliance.

4. Secondary standard treatment effectiveness. Where treatment is practiced to achieve the recommended level of any constituent designated in the federal secondary standards, measurements shall be conducted and recorded at a frequency specified in Appendix A of this chapter.

5. Chemical application. Chemicals, such as fluoride, iodine, bromine, and chlorine, that are potentially toxic in excessive concentration shall be measured and recorded daily. Recording shall include the amount of chemical applied each day. Where the PWS is attempting to maintain a residual of the chemical throughout the system, the residual in the system shall be measured and recorded daily. The quantity of all other chemicals applied shall be measured and recorded at least once each week.

6. Static and pumping water levels must be measured and recorded once per month for all GW sources. More or less frequent measurements may be approved by the department where historical data justifies it.

7. NCWS are exempt from the self-monitoring requirements for cation-exchange softening and iron/manganese removal if the treatment unit:

- Is a commercially available “off-the-shelf” unit designed for home use;
- Is self-contained, requiring only a piping connection for installation;
- Operates throughout a range of 35 to 80 psi; and
- Has not been installed to remove a contaminant that has an MCL, TT, AL, or HA.

b. Chemical quality and application. Any chemical added to raw, partially treated, or finished water must be suitable for the intended use in a potable water system. The chemical must be certified by an ANSI-accredited third party for conformance with the ANSI/NSF Standard 60, if such certification exists for the particular product, unless certified chemicals are not reasonably available for use, in accordance with department guidelines. If the chemical is not certified for conformance with the ANSI/NSF Standard 60 or no certification is available, the person seeking to supply or use the chemical must prove to the department’s satisfaction that the chemical is not toxic or otherwise a potential hazard in a potable PWS.

PWSs shall keep a record of all chemicals used. This record should include a clear identification of the chemical by brand or generic name and the dosage rate. When chemical treatment is applied with the intent of obtaining an in-system residual, the residuals will be monitored regularly. When chemical treatment is applied and in-system residuals are not expected, the treatment effectiveness will be monitored through an appropriate indicative parameter.

(1) Continuous disinfection.

1. When required. Continuous disinfection must be provided at all PWSs, except for GW supplies that either have no treatment facilities or have only fluoride, sodium hydroxide, or soda ash addition; meet the bacterial standards in 567—subrule 41.2(1); and do not show other actual or potential hazardous contamination by microorganisms. For an NCWS that only uses a cation-exchange softening unit meeting the requirements of 40.8(3) “a”(4), this requirement is based on both the system’s history of coliform bacteria detection and its compliance with the coliform bacteria monitoring requirements in 567—subrule 41.2(1).

2. Method. Chlorine is the preferred disinfecting agent. Chlorination may be accomplished with liquid chlorine, calcium or sodium hypochlorites, or chlorine dioxide. Other disinfecting agents will be considered, provided a residual can be maintained in the distribution system, reliable application equipment is available, and residual testing procedures are recognized in the Standard Methods.

3. Chlorine residual. A minimum free available chlorine residual of 0.3 mg/L or a minimum total available chlorine residual of 1.5 mg/L must be continuously maintained throughout the distribution system, except for those points in the distribution system that terminate as dead ends or areas that represent very low use when compared to usage throughout the rest of the distribution system, as determined by the department. All systems using water to which chlorine has been added must monitor daily in the distribution system to ensure the minimum disinfectant residual concentration is met, including both wholesale systems and consecutive systems.

4. Measurement. Chlorine may be measured by a test kit or an online analyzer meeting the specifications in 70.8(3) “b”(1) “5” and “6.”

5. Test kit. A test kit capable of measuring free and combined chlorine residuals in increments no greater than 0.1 mg/L in the range below 0.5 mg/L, in increments no greater than 0.2 mg/L in the

range from 0.5 mg/L to 1.0 mg/L, and in increments no greater than 0.3 mg/L in the range from 1.0 mg/L to 2.0 mg/L must be provided at all chlorination facilities. The test kit must use an analysis method recognized in the Standard Methods.

6. Online analyzer. Free and total chlorine may be measured continuously by adapting a specified chlorine residual method for use with a continuous monitoring instrument provided the chemistry, accuracy, and precision remain the same. Continuous monitoring instruments must be verified with a grab sample measurement at least every seven days. The analyzer concentration must be within plus or minus 0.1 mg/L or plus or minus 15 percent (whichever is larger) of the grab sample measurement. If the verification is not within this range, immediate actions must be taken to resolve the issue and another verification must be conducted.

7. Leak detection, control, and operator protection. A bottle of at least 56 percent ammonium hydroxide must be provided at all gas chlorination installations for leak detection. Leak repair kits must be available where ton chlorine cylinders are used.

8. Other disinfectant residuals. If an alternative disinfecting agent is approved by the department, the residual levels and test kit type will be assigned by the department in accordance with and based upon the analytical methods in the Standard Methods.

(2) Phosphate compounds.

1. When phosphate compounds are added to any PWS that uses iron or manganese removal or ion-exchange softening, the compounds must be applied after the iron or manganese removal or ion-exchange softening treatment units unless the department has approved an engineering report demonstrating the suitability for addition prior to these units in accordance with 567—subrule 43.3(2). The department may require the discontinuance of phosphate addition where it interferes with other treatment processes or system operation or if there is a significant increase in microorganism populations associated with phosphate application.

2. The total phosphate concentration in finished water must not exceed 10 mg/L as PO₄.

3. Chlorine shall be applied to the phosphate solution in sufficient quantity to give an initial concentration of 10 mg/L in the phosphate solution. A chlorine residual must be maintained in the phosphate solution at all times.

4. Test kits capable of measuring polyphosphate and orthophosphate in a range from 0.0 to 10.0 mg/L in increments no greater than 0.1 mg/L must be provided.

5. Continuous application or injection of phosphate compounds directly into a well is prohibited.

(3) Fluorosilicic acid. Where fluorosilicic acid (H₂SiF₆, also called hydrofluosilicic acid) is added to a PWS, a fluoride test kit with a minimum range of from 0.0 to 2.0 mg/L in increments no greater than 0.1 mg/L must be provided. Distilled water and standard fluoride solutions of 0.2 mg/L and 1.0 mg/L must be provided.

c. Reporting and recordkeeping requirements for systems using surface water (SW) and groundwater under the direct influence of surface water (IGW). In addition to the monitoring requirements in 40.8(3)“a” and “b” above, a PWS that uses a SW or IGW source must report monthly to the department the information specified in this subrule when filtration is installed.

(1) Turbidity measurements required by 567—subrule 43.5(3) must be reported within ten days after the end of each month the system serves water to the public. The following information must be reported.

1. The total number of filtered water turbidity measurements taken during the month.

2. The number and percentage of filtered water turbidity measurements taken during the month that are less than or equal to the turbidity limits in 567—paragraphs 43.5(3)“b” through “e” for the filtration technology being used.

3. The date and value of any turbidity measurements taken during the month which exceed 1 NTU. If at any time the turbidity exceeds 1 NTU, the system must inform the department as soon as possible, but no later than 24 hours after the exceedance is known, in accordance with the PN

requirements in 40.5(2). This is in addition to the monthly reporting requirement, pursuant to 567—43.5(455B).

(2) The disinfection information in 567—subrule 43.5(2) and 40.8(3) “b” above must be reported within ten days after the end of each month the system serves water to the public. The following information must be reported.

1. For each day, the lowest measurement of residual disinfectant concentration in mg/L in water entering the distribution system.

2. The date and duration of each period when the residual disinfectant concentration in water entering the distribution system fell below 0.3 mg/L free residual chlorine or 1.5 mg/L total residual chlorine (TRC) and when the department was notified of the occurrence. If at any time the residual falls below 0.3 mg/L free residual chlorine or 1.5 mg/L TRC in the water entering the distribution system, the system must notify the department as soon as possible but no later than by the end of the next business day. The system also must notify the department by the end of the next business day whether or not the residual was restored to at least 0.3 mg/L free residual chlorine or 1.5 mg/L TRC within four hours. This is in addition to the monthly reporting requirement in 567—43.5(455B).

3. The information on the samples taken in the distribution system in conjunction with the total coliform monitoring in 567—paragraph 43.5(2) “d” and pursuant to 567—subparagraph 41.2(1) “c”(7).

(3) The total inactivation ratio must be calculated each day the treatment plant is in operation, pursuant to 567—paragraph 43.5(2) “a,” and reported on the MOR. If the total inactivation ratio is below 1.0, the system must notify the department within 24 hours.

d. Reporting and recordkeeping requirements for DPBs, disinfectants, and DBP precursors.

(1) General.

1. In addition to the monitoring requirements in 40.8(3) “a” and “b” above, a CWS or NTNC that adds a chemical disinfectant to the water in any part of the treatment process or that provides water containing a chemical disinfectant must report monthly to the department the information specified in the tables in this paragraph by the dates in 567—subparagraphs 41.6(1) “a”(3) and 43.6(1) “a”(3). A TNC that adds chlorine dioxide as a disinfectant or oxidant must report monthly to the department the information specified in this paragraph by the dates in 567—paragraph 43.6(1) “a”(3) “3.”

2. Systems required to sample quarterly or more frequently must report to the department within ten days after the end of each quarter in which samples were collected, notwithstanding the PN provisions of 567—40.5(455B). Systems required to sample less frequently than quarterly must report to the department within ten days after the end of each monitoring period in which samples were collected.

(2) DBPs.

DBPs Reporting Table

If you are a system monitoring for ...	You must report the following ...
TTHMs and HAA5 under 567—subparagraph 41.6(1) “c”(4) on a quarterly or more frequent basis	<ol style="list-style-type: none"> 1. Number of samples taken during the last quarter. 2. Location, date, and result of each sample taken during the last quarter. 3. Arithmetic average of all samples taken in the last quarter. 4. Annual arithmetic average of the quarterly arithmetic averages for the last four quarters.* 5. Whether the MCL was exceeded. 6. Under Stage 2, any OELs that were exceeded during the quarter, including the

If you are a system monitoring for ...	You must report the following ...
TTHMs and HAA5 under 567—subparagraph 41.6(1)“c”(4) less frequently than quarterly, but at least annually	location and date and the calculated TTHM and HAA5 levels. 1. Number of samples taken during the last year. 2. Location, date, and result of each sample taken during the last monitoring period. 3. Arithmetic average of all samples taken over the last year.* 4. Whether the MCL was exceeded.
TTHMs and HAA5 under 567—subparagraph 41.6(1)“c”(4) less frequently than annually	1. Location, date, and result of the last sample taken. 2. Whether the MCL was exceeded.
Chlorite under 567—subparagraph 41.6(1)“c”(3)	1. Number of samples taken each month for the last three months. 2. Location, date, and result of each sample taken during the last quarter. 3. For each month in the reporting period, arithmetic average of all samples taken in each three sample sets taken in the month. 4. Whether the MCL was exceeded and in which month it was exceeded.
Bromate under 567—subparagraph 41.6(1)“c”(2)	1. Number of samples taken during the last quarter. 2. Location, date, and result of each sample taken during the last quarter. 3. Arithmetic average of the monthly arithmetic averages of all samples taken in the last year. 4. Whether the MCL was exceeded.

*The calculation of the RAA will transition from a systemwide RAA calculation under Stage 1 to an LRAA under Stage 2. The transition will commence according to the system schedule listed in 567—paragraph 41.6(1)“b.” Beginning at the end of the fourth calendar quarter that follows the compliance date, and at the end of each subsequent quarter, the system must report the arithmetic average of quarterly results for the last four quarters of each monitoring location. If the calculated LRAA based on fewer than four quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters, the system must report this information to the department no later than the due date of the next compliance report.

(3) Disinfectants. The reporting in the following table is in addition to the requirements in 567—subparagraph 41.2(1)“c”(7).

Disinfectants Reporting Table

If you are a system monitoring for ...	You must report the following ...
Chlorine or chloramines under 567—paragraph 43.6(1)“c”(1)“2”	1. Number of samples taken during each month of the last quarter. 2. Monthly arithmetic average of all samples taken in each month for the last 12 months. 3. Arithmetic average of all monthly averages for the last 12 months.

<p>If you are a system monitoring for ...</p>	<p>You must report the following ...</p> <ol style="list-style-type: none"> 4. Whether the MRDL was exceeded.
<p>Chlorine dioxide under 567—paragraph 43.6(1) “c”(1)“3”</p>	<ol style="list-style-type: none"> 1. Dates, results, and locations of samples taken during the last quarter. 2. Whether the MRDL was exceeded. 3. Whether the MRDL was exceeded in any two consecutive daily samples and whether the resulting violation was acute or nonacute.

(4) DBP precursors and enhanced coagulation or enhanced softening.

DBP Precursors and Enhanced Coagulation or Enhanced Softening Reporting Table

<p>If you are a ...</p> <p>System monitoring TOC monthly or quarterly under 567—subparagraph 43.6(1) “c”(2) and required to meet the enhanced coagulation or enhanced softening requirements in 567—subparagraph 43.6(3) “b”(2) or 43.6(3) “b”(3)</p>	<p>You must report the following ...</p> <ol style="list-style-type: none"> 1. Number of paired (source water and treated water, prior to continuous disinfection) samples taken during the last quarter. 2. Location, date, and result of each paired sample and associated alkalinity taken during the last quarter. 3. For each month in the reporting period that paired samples were taken, arithmetic average of the percent reduction of TOC for each paired sample and the required TOC percent removal. 4. Calculations for determining compliance with TOC percent removal requirements in 567—subparagraph 43.6(3) “c”(1). 5. Whether the system is in compliance with enhanced coagulation or enhanced softening percent removal requirements in 567—paragraph 43.6(3) “b” for the last four quarters.
<p>System monitoring TOC monthly or quarterly under 567—subparagraph 43.6(1) “c”(2) and meeting one or more of the alternative compliance criteria in 567—subparagraph 43.6(3) “a”(2) or 43.6(3) “a”(3)</p>	<ol style="list-style-type: none"> 1. Alternative compliance criterion that the system is using. 2. Number of paired samples taken during the last quarter. 3. Location, date, and result of each paired sample and associated alkalinity taken during the last quarter. 4. RAA based on monthly averages (or quarterly samples) of source water TOC for systems meeting a criterion in 567—paragraph 43.6(3) “a”(2)“1” or “3” or of treated water TOC for systems meeting the criterion in 567—paragraph 43.6(3) “a”(2)“2.” 5. RAA based on monthly averages (or quarterly samples) of source water SUVA for systems meeting the criterion in 567—paragraph 43.6(3) “a”(2)“5” or of treated water SUVA for systems meeting the criterion in 567—paragraph 43.6(3) “a”(2)“6.”

If you are a ...	<p>You must report the following ...</p> <p>6. RAA of source water alkalinity for systems meeting the criterion in 567—paragraph 43.6(3) “a”(2)“3” and of treated water alkalinity for systems meeting the criterion in 567—paragraph 43.6(3) “a”(3)“1.”</p> <p>7. RAA for both TTHM and HAA5 for systems meeting the criterion in 567—paragraph 43.6(3) “a”(2)“3” or “4.”</p> <p>8. RAA for the amount of magnesium hardness removal (as CaCO₃, in mg/L) for systems meeting the criterion in 567—paragraph 43.6(3) “a”(3)“2.”</p> <p>9. Whether the system is in compliance with the particular alternative compliance criterion in 567—subparagraph 43.6(3) “a”(2) or 43.6(3) “a”(3).</p>
SW/IGW system on reduced monitoring for TTHM/HAA5 under 567—paragraph 41.6(3) “d”	<p>For each treatment plant that treats surface or IGW source water, report the following:</p> <ol style="list-style-type: none"> 1. Number of source water TOC samples taken each month during the last quarter. 2. Date and result of each sample taken during the last quarter. 3. Quarterly average of monthly samples taken during the last quarter or the quarterly sample result. 4. RAA of quarterly averages from the past four quarters. 5. Whether the TOC RAA exceeded 4.0 mg/L.

567—40.9(455B) Record maintenance. Any PWS owner or operator shall retain the applicable records specified in this rule on its premises or at a convenient location near its premises.

40.9(1) Analytical records.

a. Basic information. Actual laboratory reports shall be kept, or data may be transferred to tabular summaries, provided that the following information is included:

- (1) Sampling date, place, and time and the name of the person who collected the sample;
- (2) Sample identification, indicating whether it was a routine distribution system sample, check sample, raw or process water sample, or other special purpose sample;
- (3) Analysis date;
- (4) Laboratory and person responsible for performing analysis;
- (5) Analytical technique or method used; and
- (6) Analysis results.

b. Record retention for specific analytes.

(1) Microbiological and turbidity. Records of microbiological and turbidity analyses made pursuant to 567—Chapters 41 and 43 shall be kept for not less than five years.

(2) Radionuclides, inorganic compounds, and organic compounds. Records of chemical analyses made pursuant to 567—Chapter 41 shall be kept for not less than ten years. Additional lead and copper requirements are listed in 40.9(2).

40.9(2) *Lead and copper.* A system subject to 40.8(2) shall retain original records of all data and analyses, reports, surveys, PE, letters, evaluations, and schedules and any other information required by 567—41.4(455B) and 567—Chapter 43. These records shall be kept for not less than 12 years.

40.9(3) *Records of action.* Records of action taken by a system to correct violations of primary drinking water regulations (including administrative orders) shall be kept for not less than five years after the last action taken with respect to the particular violation involved.

40.9(4) *Sanitary surveys.* Copies of any written reports, summaries, or communications relating to any sanitary surveys of a system shall be kept for not less than ten years after survey completion.

40.9(5) *Operation or construction permits.* Records concerning an operation or a construction permit issued pursuant to 567—Chapter 43 shall be kept for a period ending not less than ten years after a system achieves compliance with an MCL, TT, AL, or HA or after a system completes the associated construction project.

40.9(6) *PN.* Records of PNs, including the CCR, PN examples, and PN certifications, shall be kept for not less than five years.

40.9(7) *Self-monitoring.* MORs must be completed as described in 40.8(3) “a”(4). MORs and all data generated at the facility to comply with the self-monitoring requirements must be maintained at the facility for department inspection for not less than five years. The data shall be in a form that allows easy retrieval and interpretation. Examples of data that must be retained include but are not limited to recorder charts, logbooks, bench sheets, SCADA records, and electronic files.

40.9(8) *Monitoring plans.* Copies of monitoring plans developed pursuant to this chapter and 567—Chapters 41 and 43 shall be kept for the same period of time as the records of analyses taken under the plans are required to be kept unless otherwise specified.

40.9(9) *GW rule.* Additional recordkeeping requirements for the GW rule are listed in 567—paragraph 41.7(6) “b.”

40.9(10) *Level 1 and 2 assessment forms and corrective action.* The recordkeeping requirements in this subrule pertain to the coliform bacteria sampling requirements in 567—subrule 41.2(1).

a. Systems must maintain any assessment form, regardless of who conducts the assessment, and documentation of corrective actions completed as a result of an assessment or other available summary documentation of the sanitary defects and corrective actions taken under 567—paragraph 41.2(1) “m.” These records shall be maintained at the facility for department inspection for not less than five years after completion of the assessment or corrective action.

b. Systems must maintain a record of any repeat sample taken that meets department criteria for an extension of the 24-hour period for collecting repeat samples in accordance with 567—paragraph 41.2(1) “j.”

These rules are intended to implement Iowa Code sections 455B.171 through 455B.188 and 455B.190 through 455B.192.

APPENDIX A:

MINIMUM SELF-MONITORING REQUIREMENTS (SMRs)

I. Minimum SMRs for TNCs (excluding SW or IGW PWSs).

(1) The SMRs only apply to those systems meeting the monthly operation report (MOR) criteria in 40.8(3) "a"(1), 40.8(3) "a"(2), and 40.8(3) "a"(3).

(2) TNCs are exempt from the SMRs for point-of-use (POU) treatment devices unless the device is used to remove a contaminant that has an MCL, TT, or HA, in which case additional SMRs will be assigned by the department.

(3) Daily monitoring for TNCs applies only when the facility is in operation.

(4) Additional or more frequent monitoring requirements may be assigned by the department in the operation permit.

(5) Additional SMRs are required if treatment is used to remove a regulated contaminant or a contaminant that has an MCL, TT, or HA. See Section II for the SMRs for specific treatment types.

All TNCs* that meet the MOR criteria in 40.8(3) "a"(1), 40.8(3) "a"(2), and 40.8(3) "a"(3) must measure the following parameters, as applicable.

Parameter	Sample Site	Frequency
GENERAL REQUIREMENTS		
Pumpage (Flow)	raw:	1/week
	finished:	1/week
Disinfectant Residual***	finished:	1/day
	distribution system**:	1/day
Disinfectant, quantity used	day tank/scale:	1/day
Static Water and Pumping Water Levels (Drawdown)****	each active well:	1/month
ION EXCHANGE OR REVERSE OSMOSIS FOR NITRATE REMOVAL		
Nitrate	finished:	1/day
UV LIGHT		
Lamp Status (On/Off)	each lamp:	1/day

*TNCs must measure and record the total water used each week, but daily measurements are recommended, and may be required by the department for specific PWSs.

**Conduct this monitoring at representative points in the distribution system that adequately demonstrate compliance with 40.8(3) "b"(1).

***The department may reduce the required sample site locations for a system with a minimal distribution system and only hydropneumatic tank storage.

****More or less frequent measurements may be approved by the department where justified by historical data.

II. Minimum SMRs for CWS, NTNC, and SW/IGW TNC.

(1) The SMRs only apply to those systems meeting the MOR criteria in 40.8(3) "a"(1), 40.8(3) "a"(2), and 40.8(3) "a"(3).

(2) NTNCs are exempt from the SMRs for POU treatment devices unless the device is used to remove a contaminant that has an MCL, TT, AL, or HA; in which case, additional SMRs will be assigned by the department.

(3) Daily monitoring for NTNCs applies only when the facility is in operation.

(4) These are the minimum SMRs. Additional or more frequent monitoring requirements may be assigned in an operation permit.

A. General Requirements. All PWSs meeting the MOR criteria in 40.8(3) "a"(1), 40.8(3) "a"(2), and 40.8(3) "a"(3) must measure the following parameters, as applicable. TNCs that provide treatment other than a cation exchange softening unit or iron/manganese removal treatment unit must meet the requirements in the CWS column.

Parameter	PWS Type:	NTNC* & SW/IGW TNC	CWS
	Sample Site	Frequency	
Pumpage (Flow)	raw:	1/week	1/day
	finished:	1/week	1/day
Consecutive systems (flow)	all master meters:	1/day	
Static Water and Pumping Water Levels (Drawdown)**	each active well:	1/month	

*NTNCs must measure and record the total water used each week, but daily measurements are recommended, and may be required by the department for specific PWSs.

**If requested by the system, the department may allow an alternate frequency for systems with pressure tanks or controls that operate the well to ensure constant pump discharge pressure.

B. Chemical Addition. All PWSs that apply chemicals in the treatment process must monitor the following parameters for the applicable processes.

Parameter	Pumpage or Flow:	<0.1 MGD	0.1-0.5 MGD	>0.5 MGD
	Sample Site	Frequency		
DISINFECTION				
Disinfectant Residual**	finished:	1/day		
	distribution system*:	1/day		
Calculated MRDL (monthly average)	distribution system:	1/month		
Calculated MRDL (RAA)	distribution system:	1/calendar quarter		
Disinfectant, quantity used	day tank/scale:	1/day		
FLUORIDATION				
Fluoride	raw:	1/quarter	1/month	
	finished:	1/day		
Fluoride, quantity used	day tank/scale:	1/day		
pH ADJUSTMENT				
pH	finished:	1/week	2/week	1/day
Caustic Soda, quantity used	day tank/scale:	1/week		
PHOSPHATE ADDITION				

Phosphate, as PO ₄	finished:	1/week	2/week	1/day
Phosphate, quantity used	day tank/scale:	1/week		
AMMONIA ADDITION				
Chemical, quantity used	day tank/scale:	1/day		
Total residual chlorine (TRC)	finished:	1/day		
	distribution system:	1/day		
Monochloramine	finished:	1/day		
	distribution system:	1/day		
Free ammonia	finished:	1/day		
	distribution system:	1/day		
OTHER CHEMICALS				
Chemical	finished:	1/week	2/week	1/day
Chemical, quantity used	day tank/scale:	1/week		

*Conduct this monitoring at representative points in the distribution system that adequately demonstrate compliance with 40.8(3)“b”(1).

**The department may reduce the required sample sites for a system with a minimal distribution system; only hydropneumatic tank storage; or, if it is a CWS, if it serves fewer than 100 persons.

C. Iron or Manganese Removal. All CWS, NTNC, and publicly owned TNC systems with iron or manganese removal equipment must monitor for the following parameters. This monitoring is not required if the removal equipment is purchased “off the shelf,” is self-contained (requiring only a piping connection for installation), and operates throughout a range of 35 to 80 psi. Any chemicals applied during the treatment process must be measured under section B of this appendix. Systems with manganese removal must conduct the manganese monitoring. If a system utilizes the treatment only for iron removal, manganese self-monitoring is not required.

Parameter	Pumpage or Flow:	<0.1 MGD	0.1-0.5 MGD	>0.5 MGD
	Sample Site	Frequency		
Iron	raw:	1/quarter	1/month	
	finished:	1/week	2/week	1/day
Manganese*	raw:	1/quarter	1/month	
	finished:	1/day		
IRON/MANGANESE REMOVAL EQUIPMENT INSTALLED FOR ARSENIC REMOVAL				
Iron	raw:	1/month		
	finished:	1/day		

*A system may be allowed to conduct manganese self-monitoring 1/week if it meets all of the following criteria: an average annual pumpage of less than 0.1 MGD, raw water manganese less than 0.3 mg/L, and agrees to conduct quarterly PN.

D. Lime Softening of GW (Excluding IGW) and pH Adjustment for Iron and Manganese Removal, by precipitation and coagulation processes utilizing lime, soda ash, or other chemical additions. Testing is only required if a specific chemical is added.

Parameter	Pumpage or Flow:	<0.1 MGD	0.1-0.5 MGD	>0.5 MGD
	Sample Site	Frequency		
Alkalinity	raw:	1/quarter	1/month	
	finished:	1/day		
Hardness as CaCO ₃	raw:	1/quarter	1/month	
	finished:	1/day		
Iron	raw:	1/quarter	1/month	
	finished:	1/week	2/week	1/day
Manganese	raw:	1/quarter	1/month	
	finished:	1/day		
pH	raw:	1/week		
	finished:	1/day		
Temperature	raw:	1/week		

E. Cation Exchange (Zeolite) Softening. All CWS, NTNC, and publicly owned TNC systems with ion exchange softening equipment must monitor for the following parameters. This monitoring is not required if the ion exchange softening equipment is purchased “off the shelf,” is self-contained (needing only a piping connection for installation), and operates throughout a range of 35 to 80 psi. Any chemicals applied during the treatment process must be measured under section B of this appendix. An annual sodium sample of the finished water is required by 567—paragraph 41.11(1)“F” for all CWSs that use cation exchange softening, and the sodium monitoring in the following table will meet that requirement.

Parameter	Pumpage or Flow:	<0.1 MGD	0.1-0.5 MGD	>0.5 MGD
	Sample Site	Frequency		
Hardness as CaCO ₃	raw:	1/quarter	1/month	
	finished:	1/week	2/week	1/day
pH	finished:	1/week	2/week	1/day
Sodium	finished:	1/year		
Bypass, in flow or percent bypassed	bypass:	1/day		
ION EXCHANGE FOR RADIONUCLIDE REMOVAL				
Hardness as CaCO ₃	raw:	1/month		
	finished:	1/day		

F. Filtration and Disinfection Requirements for SWs or IGWs.

Parameter	Pumpage or Flow:	All
	Sample Site	Frequency
CT Ratio*	finished:	1/day
Calculated V Value	distribution system:	1/month
Calculated MRDL (monthly average)	distribution system:	1/month
Calculated MRDL (RAA)	distribution system:	1/calendar quarter
Disinfectant Residual**	finished:	continuous
	distribution system**:	1/day
Disinfectant, quantity used	day tank/scale:	1/day
pH	finished:	1/day
Temperature	raw:	1/day
	finished:	1/day
Turbidity	IFE: raw and CFE:	At least every 15 minutes 567—subrules 43.5(3) and 43.5(4), 567—43.9(455B), and 567—43.10(455B) contain specific requirements; continuous turbidity monitoring may be substituted for grab sample monitoring if the continuous process is validated using a department-approved turbidity protocol.
Turbidity, 95th percentile calculation	CFE:	Monthly, per 567—paragraph 43.5(3) “b”
Continuous turbidity monitoring instrument***	Each turbidimeter:	Each turbidimeter must be verified with a grab sample measurement at least once per week.

*Determine the total inactivation ratio ($CT_{cal}/CT_{required}$) before the first customer during peak hourly flow each day the treatment plant is in operation; 567—paragraph 43.5(2) “a” contains more information.

**Conduct this monitoring to demonstrate compliance with 40.8(3) “b,” 567—subrules 43.5(2) and 43.5(4), and 567—43.6(455B).

***The calibration of each turbidimeter used for compliance must be verified to demonstrate IFE compliance with 567—paragraphs 43.9(4) “a” and 43.10(5) “a” and CFE compliance with 567—subparagraph 43.5(4) “b”(1) and 43.9(3) and 43.10(4).

G. Clarification or Lime Softening of SW or IGW.

Parameter	Pumpage or Flow:	All
	Sample Site	Frequency
Alkalinity	raw:	1/day
	raw:	SW/IGW systems; 1/month at same time raw TOC sample is collected
	finished:	1/day
Carbon dioxide (CO ₂), quantity used	tank/scale/feeder:	1/week
Caustic Soda, quantity used	day tank/scale:	1/week
CT Ratio*	finished:	1/day
Disinfectant Residual**	finished:	continuous
	distribution system**:	1/day
Disinfectant, quantity used	day tank/scale:	1/day
Continuous disinfectant monitoring instrument	location of instrument:	The calibration of instruments used for continuous disinfectant monitoring must be verified with a grab sample measurement at least every 7 days
Hardness as CaCO ₃	raw:	1/day
	finished:	1/day
Lime, quantity used	day tank/scale/feeder:	1/week
pH	raw:	1/day
	finished:	1/day
Temperature	raw:	1/day
	finished:	1/day
TOC	raw:	1/month at same time the CFE sample is taken
	CFE:	1/month at same time the raw sample is taken
	Source water alkalinity:	1/month at same time the raw sample is taken
Turbidity	raw and CFE:	567—subrules 43.5(3) and 43.5(4), 567—43.9(455B), and 567—43.10(455B) contain specific requirements
	IFE:	At least every 15 minutes

*Determine the total inactivation ratio ($CT_{\text{cal}}/CT_{\text{required}}$ before the first customer during peak hourly flow each day the treatment plant is in operation; 567—paragraph 43.5(2) "a" contains more information.

**Conduct this monitoring to demonstrate compliance with 40.8(3) "b," 567—subrules 43.5(2) and 43.5(4), and 567—43.6(455B). Systems serving 3,300 or fewer persons may take grab samples in lieu of providing continuous monitoring at the frequencies in 567—subparagraph 43.5(4) "b"(2).

H. Reverse Osmosis, Nanofiltration, or Electrodialysis.

Parameter	Pumpage or Flow:	<0.1 MGD	>0.1 MGD
	Sample Site	Frequency	
Alkalinity	raw:	1/quarter	1/month
	finished:	1/day	
Antiscalant, quantity used	day tank/scale:	1/week	
Bypass flow or percent bypassed	bypass:	1/day	
Cleaning chemical, quantity used	day tank/scale	1/week	
Hardness as CaCO ₃	raw:	1/quarter	1/month
	finished:	1/day	
Iron	raw:	1/day	
Manganese	raw:	1/day	
pH	raw:	1/week	
	finished:	1/day	
Total Dissolved Solids	raw:	1/month	

I. Anion Exchange (i.e., Nitrate Reduction).

Parameter	Pumpage or Flow:	<0.1 MGD	>0.1 MGD
	Sample Site	Frequency	
Bypass flow or percent bypassed	bypass:	1/day	
Nitrate	raw:	1/day	
	finished:	1/day	
Source water	Document which sources were in use during each month and when well or source rotation occurs		
Sulfate*	raw:	1/week	
	finished:	1/week	

*If required by the department.

J. Activated Carbon or Air-Stripping for TTHM, VOC, or SOC Removal (GAC or PAC).

Parameter	Pumpage or Flow:	<0.1 MGD	>0.1 MGD
	Sample Site	Frequency	
TOC	finished:	1/quarter	1/month

K. Lead and Copper: Corrosion Control and WQPs. The specific SMRs for corrosion control and WQPs are listed in 567—paragraph 41.4(1) “d” and 567—subrules 43.7(1) and 43.7(2).

L. Hydrus Manganese Oxide (HMO) Filtration and Manganese Co-precipitation for Radium Removal.

Parameter	Pumpage or Flow:	All
	Sample Site	Frequency
Chemical additive, quantity used	day tank/scale:	1/day
Manganese	raw:	1/month
	finished:	1/day
Pumpage or Flow	raw:	1/day
Bypass flow, percent bypass, or blend	bypass/blend:	1/day

M. Acrylamide and Epichlorohydrin Addition.

Parameter	Pumpage or Flow:	All
	Sample Site	Frequency
Chemical additive, third-party or manufacturer’s certification*	Combination of dose and monomer level:	Annually

*Levels must not exceed values specified in 567—subparagraph 41.5(1)“b”(2).

N. Source Blending for Contaminant Control. Specific SMRs for source water blending to achieve compliance with an MCL, TT, AL, or HA will be specified in an operation permit on a case-by-case basis, in accordance with 40.8(3)“a”(4).

O. 4-log Treatment of Viruses for GW Systems. Operation permits will include operational requirements for the approved 4-log virus treatment in accordance with 567—paragraph 41.7(4)“b.” All GW systems that provide at least 4-log virus treatment must measure the following parameters, where applicable.

Parameter	Population Served:	25 - 3,300	>3,300
	Sample Site	Frequency	
Chemical disinfectant*	finished:	1/day**	continuously
Contact tank level	level:	1/day	
Peak flow rate	flow meter:	continuously	
pH	finished:	1/day	
Temperature***	finished:	1/day	

*Monitor residual disinfectant concentration using the analytical methods in 567—subparagraph 43.5(4)“a”(5) at a department-approved location. Record the concentration each day that water is served to the public.

**GW systems must collect a daily grab sample during the hour of peak flow or at another department-specified time.

***Daily temperature monitoring is assigned initially for one year so that the lowest temperature can be determined and assigned for subsequent compliance monitoring.

P. Biological Treatment Process for Ammonia Removal. Operation permits may include additional mandatory operational requirements for the treatment process.

Parameter	Pumpage or Flow:	All
	Sample Site	Frequency
Ammonia, as N**	finished*:	1/week
	distribution system*:	1/week
Dissolved oxygen (DO)	contactor inlet:	1/day
	contactor outlet:	1/day
Nitrite, as N**	finished*:	1/day
	distribution system*:	1/day

*One sample from the finished water must be collected monthly, split for analysis, and analyzed by a certified laboratory and the system.

**The department may reduce the required sampling frequency once nitrification is achieved in the biological filter or contactor and the system is consistently using free available chlorine for disinfection.

Q. Membrane Filtration (including micro and ultra filtration).

Parameter	Pumpage or Flow:	All
	Sample Site	Frequency
Antiscalant, quantity used	day tank/scale:	1/week
Cleaning chemical, quantity used	day tank/scale:	1/week
Direct integrity test (DIT)*	each membrane unit:	1/day*
Indirect integrity test**	each membrane unit:	continuous**
Log removal value (LRV)*	each membrane unit:	1/day*
Upper control limit***	each membrane unit:	If the DIT result exceeds the control limit, the system must remove the membrane from service
Continuous turbidity monitoring equipment****		Each turbidimeter used for compliance must be verified with a grab sample measurement at least once per week

*Conduct DITs on each membrane unit at a frequency of not less than once each day that the membrane unit is in operation and to verify repairs.

**Unless the department approves an alternative parameter, continuous indirect integrity monitoring must include continuous filtrate turbidity monitoring conducted at a frequency of no less than once every 15 minutes on each membrane unit.

***Systems must establish a control limit within the DIT sensitivity limits in order to demonstrate compliance with 567—paragraphs 43.11(12) “b”(3)“4” and “5.”

****The calibration of each turbidimeter used for compliance must be verified to demonstrate compliance with 567—paragraphs 43.9(4)“a” and 43.10(5)“a.”

R. CWS and NTNC Systems Using Ozone Treatment. CWS and NTNC systems that use ozone in their treatment process must comply with the bromide requirements of subrule 567—43.6(2).

Parameter	Pumpage or Flow:	All
	Sample Site	Frequency
Bromate	finished:	1/month*

*The department may allow systems required to analyze for bromate to reduce bromate monitoring from monthly to once per quarter if a system demonstrates that the average source water bromide concentration is less than 0.05 mg/L based on representative monthly measurements for one year. Systems must continue bromide monitoring to remain on reduced bromate monitoring.

S. Ultraviolet Light (UV). All CWS and NTNC systems must comply with these requirements.

Parameter	Pumpage or Flow:	All
	Sample Site	Frequency
Alarm during off-specification conditions	each reactor:	1/5 minutes
UV intensity	each lamp:	1/day
UVT	each lamp:	1/day
Ratio of minimum UV dose calculated and recorded every 4 hours to the required UV dose, OR calculate and record the log inactivation every four hours	each reactor:	1/day
Lamp status	each lamp:	1/4 hours**
Individual UV reactor flow	each reactor:	1/4 hours
	max UV flow:	daily
	total UV flow:	daily total
Total volume of off-specification water	each reactor:	1/day
	all reactors:	monthly total
Percent of off-specification water produced	all reactors:	monthly total
Perform UVT analyzer check protocol	-	1/week
Perform UV sensor verification*	each sensor:	1/month

*Reference sensor(s) must be calibrated at least once per year at a qualified facility against a traceable standard. Calibration records must be maintained for inspection during sanitary surveys. If the reference sensor is found to be out of calibration, the calibration frequency should be increased.

**Systems serving fewer than 500 persons may record lamp status 1/day.

T. Chlorine Dioxide. All CWS, NTNC and TNC systems must comply with these requirements. In the event of an acute or nonacute violation, systems must also comply with 567—paragraph 43.6(1) “e.”

Parameter	Pumpage or Flow:	All
	Sample Site	Frequency
Chlorine dioxide	finished:	1/day
Chlorite	finished:	1/day

U. Copper Ion Generator.

	Pumpage or Flow:	All
Parameter	Sample Site	Frequency
Copper residual	finished:	1/week
	injection stream:	1/week

ITEM 2. Rescind and reserve 567—Chapter 42.