

Appendix G: Minnesota Rules, Chapter 9400

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9400.0400 CLASSIFICATION OF SYSTEMS.

Subpart 1. **Basis.** The classification of all systems must be based on the degree of hazard to the public health, together with the type and capacity of the system and the population affected.

Subp. 1a. **Operator availability.** All systems must have a certified water supply system operator as specified in Minnesota Statutes, sections [115.71](#), subdivision 10, and [115.73](#). This person, or an operator certified at the same level or above, must be available on site or able to be contacted as needed to initiate an appropriate action in a timely manner.

Subp. 2. **Rating values.** The classification of a system must be based on the following rating values:

A. water supply source:

- (1) groundwater, five points;
- (2) surface water, 15 points;

B. treatment processes:

(1) groundwater source:

- (a) aeration, two points;
- (b) chemical precipitation (softening including filtration), 16 points;
- (c) filtration other than after softening process, ten points;
- (d) ion exchange, five points;
- (e) chlorination, five points;
- (f) chemical oxidation, two points;
- (g) stabilization, two points;
- (h) air stripping, five points;
- (i) carbon contactors, five points;
- (j) fluoridation, five points;
- (k) ammonia addition, five points;

- (l) taste and odor control, two points;
- (m) ozonation, eight points;
- (n) membrane filtration, ten points;
- (o) chlorine dioxide, eight points;
- (p) unlisted new technologies, three to ten points
(based on relative complexity);

(2) surface water source:

- (a) ozonation, eight points;
- (b) coagulation, ten points;
- (c) sedimentation, five points;
- (d) filtration, ten points;
- (e) chlorination, five points;
- (f) ion exchange, five points;
- (g) chemical oxidation, two points;
- (h) carbon contactors, five points;
- (i) stabilization, two points;
- (j) membrane filtration, ten points;
- (k) fluoridation, five points;
- (l) ammonia addition, five points;
- (m) taste and odor control, two points;
- (n) chlorine dioxide, eight points;
- (o) unlisted new technologies, three to ten points
(based on relative complexity);

C. distribution storage capacity:

- (1) 0 to 5,000 gallons, one point;
- (2) 5,001 to 50,000 gallons, two points;
- (3) 50,001 to 500,000 gallons, three points;
- (4) 500,001 to 5 million gallons, four points;
- (5) Over 5 million gallons, five points;

D. number of wells:

- (1) one to three, two points;
- (2) four to seven, four points;
- (3) eight to 15, six points;
- (4) over 15, eight points;

E. population affected:

- (1) 0 to 1,000 persons, two points;
- (2) 1,001 to 5,000 persons, five points;
- (3) 5,001 to 10,000 persons, 11 points;
- (4) 10,001 to 20,000 persons, 20 points;
- (5) 20,001 to 50,000 persons, 32 points;
- (6) 50,001 to 100,000 persons, 47 points;
- (7) 100,001 persons and over, 70 points.

Subp. 3. **Accumulated value.** The accumulated point values for systems are as follows:

- A. Class A, 76 or more points;
- B. Class B, 56 to 75 points;
- C. Class C, 31 to 55 points;
- D. Class D, 30 or less points; and

E. Class E, regardless of point values, any system comprised of a groundwater source with no treatment other than point-of-entry or point-of-use treatment devices not used for compliance with the federal Safe Drinking Water Act, United States Code, title 42, sections 300f to 300j-26 (1996 and as subsequently amended), serving a maximum of 500 persons.

STAT AUTH: MS s [115.72](#); [115.79](#)

HIST: 21 SR 1165; 25 SR 1633
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9400.0500 CLASSIFICATION OF FACILITIES.

Subpart 1. **Basis.** The classification of all wastewater treatment facilities actually used or intended for use by the

public and required to have permits under part [7080.0030](#), subpart 1a, for individual sewage treatment systems or chapter 7001, must be based on the degree of hazard to the public health, together with the type and loading of the facilities and the population served or the average population equivalent of the wastewater handled.

Subp. 2. **Rating values.** Facility classification must be based on the following rating values:

A. size:

(1) maximum population equivalent (P.E.) served, one point per 10,000 P.E. or part thereof;

(2) average wet weather design flow, one point per million gallons per day or part of a million gallons per day;

B. permit final effluent limitations:

(1) surface water discharge:

(a) carbonaceous biochemical oxygen demand (CBOD) limit. The loading must be based on the most restrictive of the effluent concentration loading or mass loading. The mass loading equivalent concentration must be calculated using the facility average wet weather design flow. CBOD loading of:

i. 14 milligrams per liter or less, five points;

ii. more than 14 milligrams per liter to 24 milligrams per liter, four points;

iii. more than 24 milligrams per liter to 39 milligrams per liter, three points;

iv. more than 39 milligrams per liter, two points;

(b) nutrient limits:

i. nitrogen limit, six points;

ii. phosphorus limit, eight points;

(2) land discharge, two points;

(3) subsurface discharge, four points;

C. variation in raw wastes based upon maximum month design values:

(1) one percent to five percent industrial flow or carbonaceous biochemical oxygen demand (CBOD) loading, whichever is greater, contributed to facility, one point;

(2) more than five percent to ten percent industrial flow or CBOD loading, whichever is greater, contributed to facility, two points;

(3) more than ten percent to 25 percent industrial flow or CBOD loading, whichever is greater, contributed to facility, three points;

(4) more than 25 percent to 50 percent industrial flow or CBOD loading, whichever is greater, contributed to facility, four points;

(5) more than 50 percent industrial flow or CBOD loading, whichever is greater, contributed to facility, five points;

D. liquids handling:

(1) screening, comminution, three points;

(2) grit removal, three points;

(3) pumping of raw wastewater flow, three points;

(4) preaeration, postaeration, or both, with less than two hours' detention time, three points;

(5) influent static or rotating screen, three points;

(6) flow equalization basin, primary clarifier, or both, five points;

(7) septic tank, three points;

(8) combined sedimentation and digestion, five points;

(9) trickling filter, seven points;

(10) activated sludge, including pure oxygen activated sludge and sequencing batch reactor, 13 points;

(11) trickling filter solids contact (TFSC) and activated biofilter, ten points;

(12) stabilization pond, designed for more than 180 days' detention time, five points;

(13) aerated pond designed for more than two hours' detention time, five points;

(14) anaerobic contactor process, ten points;

(15) anaerobic pond, four points;

- (16) rotating biological surface including submerged biological surface, seven points;
- (17) secondary clarifier, five points;
- (18) on-site generation of oxygen, five points;
- (19) aerated polishing pond designed for less than 180 days' detention time, five points;
- (20) polishing pond without aeration, two points;
- (21) chemical addition for solids removal or pH adjustment, two points;
- (22) subsurface soil treatment system constructed in accordance with chapter 7080, three points;
- (23) rapid infiltration basin, three points;
- (24) biological sand filter without backwash, three points;
- (25) effluent irrigation, five points;
- (26) effluent polishing filter with backwash, eight points;
- (27) ion exchange, ten points;
- (28) reverse osmosis, electrodialysis, 15 points;
- (29) chemical recovery, carbon regeneration, four points;
- (30) effluent microscreening, three points;
- (31) disinfection:
 - (a) chlorination with or without dechlorination, five points;
 - (b) ultraviolet light, five points;
 - (c) ozonation, five points;
- (32) unlisted new technologies, three to ten points (based on relative complexity);

E. solids handling:

- (1) gravity thickening with or without chemical treatment, five points;
- (2) anaerobic digestion, ten points;
- (3) aerobic digestion, six points;

- (4) sludge drying bed, two points;
- (5) mechanical thickening or dewatering, eight points;
- (6) solids reduction, such as incineration, wet oxidation, 12 points;
- (7) on-land disposal, five points;
- (8) lime stabilization of sludge, five points;
- (9) sludge or septage storage, if the facility has neither anaerobic nor aerobic digestion, three points;
- (10) composting, five points;
- (11) unlisted new technologies, three to ten points (based on relative complexity);

F. laboratory monitoring:

- (1) minimum required tests (pH, Cl₂ residual, dissolved oxygen, settleable solids, carbonaceous biochemical oxygen demand, and total suspended solids), two points;
- (2) bacteriology (fecal coliform, total coliform, fecal streptococcal, etc.), three points;
- (3) nutrients, one point;
- (4) groundwater monitoring, one point.

Subp. 3. **Accumulated values.**

A. The accumulated point values for wastewater treatment facilities are as follows:

- (1) Class A, 76 or more points;
- (2) Class B, 56 to 75 points;
- (3) Class C, 31 to 55 points;
- (4) Class D, 30 and less points.

B. Notwithstanding item A, a facility that is given points for processes in subpart 2, item D, subitem (9), (10), (11), or (16), must be classified as a Class C facility or higher.

Subp. 4. **Type S facility.** A type S treatment facility means a system of collection, pumping, and conveyance facilities distinctly separate in operation from a facility which treats, stabilizes, or disposes of the wastewater collected, pumped, or conveyed.

A. Where a type S facility is not distinctly separate, it is considered to be part of the treatment facility for which the designated operator is responsible.

B. A type S treatment facility must be subclassified as follows:

(1) Class S-A, serving a population of 50,000 or more;

(2) Class S-B, serving a population of 15,000 or more but less than 50,000;

(3) Class S-C, serving a population of 1,500 or more but less than 15,000;

(4) Class S-D, serving a population of less than 1,500.

C. A type S treatment facility must be subclassified as follows:

(1) Class S-A, serving a population of 50,000 or more;

(2) Class S-B, serving a population of 15,000 or more but less than 50,000;

(3) Class S-C, serving a population of 1,500 or more but less than 15,000;

(4) Class S-D, serving a population of less than 1,500.

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9400.0700 CERTIFICATION OF SYSTEM AND FACILITY OPERATORS.

Subpart 1. [Repealed, 21 SR 1165]

Subp. 2. **Certification in particular class.** An applicant who seeks certification must:

A. meet the qualifications for one of the classes specified in this part and take and pass an exam; or

B. meet the requirements for reciprocity under part [9400.1350](#).

Subp. 3. **Class A certificate.** An applicant for a Class A certificate must:

A. have been certified as a Class B operator for at least two years; and

B. have:

(1) a high school diploma or equivalent with at least eight years experience in the operation, including at least two years as a part of the management, of a Class A or B system or facility, or a similar industrial facility; or

(2) a bachelor's degree from an accredited institution in chemical, civil, environmental, mechanical, or sanitary engineering or in a physical or biological science, and submit satisfactory evidence of at least four years experience in the operation, including at least two years as a part of the management, of a Class A or B system or facility or a similar industrial facility.

Subp. 4. **Class B certificate.** An applicant for a Class B certificate must:

A. have been certified as a Class C operator for at least one year; and

B. have:

(1) a high school diploma or equivalent with at least six years experience in the operation of a Class A, B, or C system or facility, or a similar industrial facility; or

(2) a bachelor's degree from an accredited institution in chemical, civil, environmental, mechanical, or sanitary engineering or in a physical or biological science, and submit satisfactory evidence of at least two years experience in the operation of a Class A, B, or C system or facility, or similar industrial facility.

Subp. 5. **Class C certificate.** An applicant for a Class C certificate must have:

A. a high school diploma or equivalent, with at least three years experience in the operation of a Class A, B, C, or D system or facility, or similar industrial facility; or

B. a bachelor's degree from an accredited institution in chemical, civil, environmental, mechanical, or sanitary engineering or in a physical or biological science, and submit satisfactory evidence of at least one year experience in the operation of a Class A, B, C, or D system or facility, or similar industrial facility.

Subp. 6. **Class D certificate.** An applicant for a Class D certificate must:

A. have a high school diploma or equivalent; and

B. have:

(1) at least one year experience in the operation of a Class A, B, C, or D system or facility, or in a related field; or

(2) satisfactorily completed a postsecondary program of courses in water or wastewater technology approved by the respective agency or department at an accredited institution.

Subp. 6a. **Class E certificate.** An applicant for a Class E certificate must:

A. have a high school diploma or equivalent; and

B. have:

(1) at least three months experience in the operation of a Class A, B, C, D, or E system or facility, or in a related field; or

(2) satisfactorily completed a postsecondary program of courses in water or wastewater technology approved by the respective agency or department at an accredited institution.

Subp. 7. **Type S certificate.** An applicant for a type S wastewater treatment certificate must possess the same education and experience required for a regular wastewater certificate in the same class, except experience must have been gained in a facility or type S facility and:

A. an applicant for an S-A type certificate must have been certified as an S-B or B facility operator for at least two years; or

B. an applicant for a type S-B certificate must have been certified as an S-C or C facility operator for at least one year.

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