

Chapter NR 114

CERTIFICATION OF OPERATORS OF WATERWORKS AND SEWAGE TREATMENT PLANTS

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NR 114.01 General. Pursuant to subsection 144.025 (2) (1), Wis. Stats., it is necessary that every waterworks and sewage treatment plant employ an operator who holds a valid certificate. Certification shall be available to all individuals who can meet the qualifications for a given grade.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.01 to be NR 114.01, Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.02 Definitions. OPERATOR. An "operator" is an individual, designated by the owner or his authorized representative, who is in direct charge of operation of a waterworks or sewage treatment plant. For industrial waste treatment facilities, the operator shall be the individual, designated by the owner, who is responsible for the operation of the facility or facilities.

(2) **WATERWORKS.** "Waterworks" are any facilities installed or constructed to obtain, store, treat or convey water for drinking or domestic use for a public or institution water supply. A public water supply is a facility serving a county, town, town sanitary district, city, village, water utility district or 10 or more premises of mixed ownership. Institution as applied to these rules is defined in section 49.10(12)(f), Wis. Stats.

(3) **SEWAGE TREATMENT PLANT.** A "sewage treatment plant" is any facility or group of units provided for the treatment of sanitary sewage and/or industrial waste. The following types of systems are excluded:

- (a) Facilities consisting of septic tank and soil disposal systems defined as plumbing in section 145.01(1)(b), Wis. Stats.;
- (b) Pretreatment facilities from which effluent is directed to a public sewer system for treatment;
- (c) Industrial waste treatment facilities which result in no discharge to a watercourse.

(4) **SANITARY SEWAGE.** "Sanitary sewage" is wastewater discharged from sanitary conveniences.

(5) **INDUSTRIAL WASTE.** "Industrial waste" is wastewater resulting from the processes employed in industrial establishments.

(6) **OWNER.** The "owner" is the state, county, town, town sanitary district, city, village, metropolitan sewerage district, corporation, firm, company, institution, water utility district, joint sewerage commission or individual responsible for providing water or sewage treatment.

(7) **DEPARTMENT.** The "department" is the department of natural resources.

(8) **CERTIFICATE.** A "certificate" is a certificate of competency issued by the department stating that the individual has met the requirements for the specified operator grade.

(9) **SECRETARY.** The "secretary" is the secretary of the department of natural resources.

(10) **BOARD.** The "board" is the board of certification for sewage treatment plant operators and/or board of certification for waterworks operators.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.02 to be NR 114.02, Register, May, 1971, No. 185, eff. 6-1-71.

RD 114.03 Boards of certification. (1) Board of certification shall be appointed by the secretary to advise and assist the department in administration of the certification program. The boards shall recommend classification of waterworks and sewage treatment plants and shall adopt policies required in performing their obligations, subject to approval by the secretary.

(2) The board of certification for sewage treatment plants shall consist of:

(a) A faculty member of a university in Wisconsin.

(b) A representative of a municipality required to employ a certified sewage treatment plant operator, such as a city manager, utility manager, city engineer or director of public works.

(c) An elected or appointed city, village or municipal official.

(d) Two sewage treatment plant operators holding valid certificates, one of whom shall hold a grade I certificate.

(e) Two industrial representatives selected from major processing industries in Wisconsin.

(f) The secretary or his designated representative who shall serve as recording secretary for the board.

(3) The board of certification for waterworks shall consist of:

(a) A faculty member of a university in Wisconsin.

(b) A representative of a municipality required to employ a certified waterworks operator, such as a city manager, utility manager, city engineer or director of public works.

(c) An elected or appointed city, village or municipal official.

(d) Two waterworks operators holding valid certificates.

(e) The secretary or his designated representative who shall serve as recording secretary for the board.

(4) **Terms of office.** (a) Citizen members of the boards shall serve for a 3-year term except the first appointments for which the term of the municipal representative, one operator and one industry representative shall be one year; and the term of the elected or appointed city, village or municipal official, one operator and one industry representative shall be 2 years.

(b) Appointments to succeed a board member who is unable to

serve his full term shall be for the remainder of the unexpired term.

(c) Board members may be reappointed, but they do not succeed themselves automatically.

(5) At the first meeting of each year each board shall select from its membership a chairman and such other officers as may be needed to conduct its business.

(6) Citizen members of the boards shall be reimbursed for their actual and necessary expenses by the department.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.03 to be NR 114.03, Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.04 Application for certification. (1) An individual desiring to be certified shall file application with the department at least one month prior to the established date of the examination on an application form provided by the department.

(2) Applicants shall be advised whether they are eligible for examination and notified of their status in writing.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.04 to be NR 114.04, Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.05 Examinations. (1) Examinations shall be conducted at least annually at locations and times set by the secretary.

(2) Examinations shall be used to determine knowledge, ability and judgment of the applicants and shall be written except in such cases as the board may decide are proper exceptions.

(3) A score of 70 or higher shall be considered a passing grade on the basis of 100 being perfect.

(4) Examination papers will not be returned to the applicant but means will be provided to review the results with a staff member of the department upon request by the applicant within 30 days of notification of result. Papers may be destroyed after the 30-day notification period.

(5) Applicants who fail to pass an examination may apply to the department for reexamination at a subsequent scheduled examination.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.05 to be NR 114.05, Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.06 Fees. (1) Fees for certification shall be as follows:

(a) Application-examination	\$3.00
(b) Certification	2.00
(c) Biennial renewal	2.00

(2) The application-examination fee must accompany the completed application form.

(3) The biennial renewal fee is due January 1 of each odd numbered year.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.06 to be NR 114.06, Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.07 Issuance of certificates. (1) Upon satisfactory fulfillment of the qualifications provided herein and receipt of the certification fee, the secretary shall issue a certificate to the applicant indicating the grade for which he has qualified.

(2) Individuals holding valid certificates under the voluntary certification programs in this state will be issued a new certificate in an equivalent grade upon receipt of the biennial renewal fee.

(3) The initial certification shall be effective until January 1 of

the first odd numbered year following certification. All certificates are renewable as of January 1 of each odd numbered year.

(4) Certified operators who desire to become certified in a higher grade must satisfactorily fulfill the established qualifications before a new certificate is issued.

(5) Certificates may be revoked by the department following a hearing if the operator does not use reasonable care, judgment and application of his knowledge in the performance of his duties or if the certificate was obtained through fraud, deceit or the submission of incorrect data on qualifications or operations. Any order of revocation is subject to review as provided under chapter 227, Wis. Stats.

(6) An individual whose certificate has lapsed for 2 years or longer and desires reinstatement shall follow the procedures for initial certification.

(7) Certificates for operation of industrial waste treatment facilities will be issued for specific facilities only and shall be valid for those facilities described in the certificate. Re-certification may be required in instances where the facilities that are being operated are significantly altered.

(8) Certificates may be issued, without examination, in a comparable grade to any person who holds a certificate in any state, territory or possession of the United States or any country, if in the judgment of the board the requirements for certification of operators under which the person's certificate was issued do not conflict with the provisions of these rules and are of a standard not lower than that specified by these rules, and provided further that reciprocal privileges are granted to certified operators of this state.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.07 to be NR 114.07, Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.08 Classification of sewage treatment plants. (1) A list of sewage treatment plants shall be prepared by the department and revised at least annually to show the classification of all sewage treatment plants in the state. The classification of sewage treatment plants shall be based on the following criteria:

(a) *Class I.* (1) Plants treating sanitary sewage which are designed for or receiving over 3.0 million gallons per day.

(2) Plants employing sufficiently complicated processes to warrant this classification.

(b) *Class II.* (1) Plants treating sanitary sewage which are designed for or receiving 1.0 to 3.0 million gallons per day.

(2) Plants employing sufficiently complicated processes to warrant this classification.

(c) *Class III.* (1) Plants treating sanitary sewage which are designed for or receiving 0.1 to 1.0 million gallons per day.

(2) Plants employing sufficiently complicated processes to warrant this classification.

(d) *Class IV.* All other plants which treat sanitary sewage.

(e) *Class V.* Plants which treat only industrial waste.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.08 to be NR 114.08, Register, May, 1971, No. 185, eff. 6-1-71.

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NR 114.09 Qualifications of sewage treatment plant operators. (1) Five grades of sewage treatment plant operators are hereby established. To qualify for certification in a given grade an individual must pass the appropriate examination and meet one of the combinations of educational and experience requirements, or their equivalent as determined by the board, for that particular grade.

(a) *Grade I.* (1) Registration as a professional engineer with satisfactory experience in the operation of sewage treatment works.

(2) A master of science degree in engineering with major emphasis in sanitary sciences with one year of satisfactory experience in operation of sewage treatment works.

(3) A bachelor of science degree in engineering with 2 years of satisfactory experience in operation of sewage treatment works.

(4) Four years of college training with major emphasis in chemistry or biological sciences, with 3 years of satisfactory experience in the operation of sewage treatment works.

(5) High school graduation and completion of a special course of training in sewage treatment, with a minimum of 4 years satisfactory experience in the operation of sewage treatment works and demonstration of mechanical aptitude.

(b) *Grade II.* (1) A bachelor of science degree in engineering with one year of satisfactory experience in operation of sewage treatment works.

(2) Two years of college training, with major emphasis in chemistry or biological sciences, with 2 years of satisfactory experience in operation of sewage treatment works.

(3) High school graduation and completion of a special course of training in sewage treatment with a minimum of 3 years satisfactory experience in the operation of sewage treatment works and demonstration of mechanical aptitude.

(4) Satisfactory completion of a special course of training in sewage treatment with a minimum of 4 years satisfactory experience in the operation of sewage treatment works.

(c) *Grade III.* (1) Two years of college training, with major emphasis in chemistry or biological sciences, with one year of satisfactory experience in operation of sewage treatment works.

(2) High school graduation and completion of a special course of training in sewage treatment with a minimum of 2 years satisfactory experience in the operation of sewage treatment works and demonstration of mechanical aptitude.

(3) Satisfactory completion of a special course of training in sewage treatment with a minimum of 3 years satisfactory experience in the operation of sewage treatment works.

(d) *Grade IV.* Completion of special course of training in sewage treatment and demonstration of aptitude in operation of sewage treatment works.

(e) *Grade V.* Demonstration of aptitude in operation of the waste treatment facility or facilities for which the individual will be certified.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.09 to be NR 114.09, Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.10 Classification of waterworks. (1) A list of waterworks systems shall be prepared by the department and updated each year to show the classification of all waterworks systems in the state. The classification of waterworks systems shall be based upon a system of rating values. Items to be rated and their assigned values are listed in the following table:

Rating Values for Classification of Water Supply Works			
	Unit	Rating Value	
Source.....	Ground Water.....	3	
	Surface Water.....	100	
Treatment.....	Aeration.....	2	
	Coagulation (Surface Water Only).....	25	
	Sedimentation (Surface Water Only).....	30	
	Filtration (Gravity).....	10	
	Filtration (Pressure).....	30	
	Disinfection (Pre).....	5	
	Disinfection (Post).....	5	
	Ion Exchange.....	20	
	Chemical Addition.....	5	
	Chemical Precipitation (Softening or Iron Removal).....	50	
	Taste and Odor Control.....	5	
	Distribution.....	Raw Water Pumping.....	5
		Finished Water Pumping.....	5
Finished Water Storage at Plant.....		2	
Storage on System.....		2	
Pumpage or Usage Control.....	Average Pumpage—M.G.D.	Rating Value per M.G.	
	2 or less.....	10	
	Next 5.....	2	
	Next 20.....	0.5	
	Next 40.....	0.25	
	Maximum value that can be applied is 50.		
	Chemistry Laboratory.....	5	
	Bacteriological Laboratory.....	5	
CLASSIFICATION			
Class S1.....	161 or more		
Class G1.....	91-160		
Class P1.....	66-90		
Class M1.....	Up to and including 65		

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.10 to be NR 114.10, Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.11 Qualifications of waterworks operators. (1) Four grades of waterworks operators are hereby established. To qualify for certification in a given grade an individual must pass the appropriate examination and meet one of the combinations of educational and experience requirements, or their equivalent as determined by the board, for that particular grade.

(a) *Grade S1.* (1) Registration as a professional engineer with satisfactory experience in operation of a waterworks.

(2) A master of science degree in engineering with major emphasis in sanitary sciences with one year of satisfactory experience in operation of a waterworks.

(3) A bachelor of science degree in engineering with 2 years of satisfactory experience in operation of a waterworks.

(4) Four years of college training with major emphasis in chemistry or biological sciences, with 3 years of satisfactory experience in operation of a waterworks.

(5) High school graduation, completion of a special course of training in waterworks, a minimum of 4 years satisfactory experience in operation of a waterworks.

(b) *Grade G1.* (1) A bachelor of science degree in engineering with one year of satisfactory experience in operation of a waterworks.

(2) Two years of college training, with major emphasis in chemistry or biological sciences, with 2 years of satisfactory experience in operation of a waterworks.

(3) High school graduation and completion of a special course of training in waterworks with a minimum of 3 years satisfactory experience in the operation of a waterworks.

(4) Satisfactory completion of a special course of training in waterworks with a minimum of 4 years of satisfactory experience in operation of a waterworks.

(c) *Grade P1.* (1) Two years of college training, with major emphasis in chemistry or biological sciences, with one year of satisfactory experience in operation of a waterworks.

(2) High school graduation and completion of a special course of training in waterworks with a minimum of 2 years satisfactory experience in the operation of a waterworks.

(3) Satisfactory completion of a special course of training in waterworks with a minimum of 3 years satisfactory experience in the operation of a waterworks.

(d) *Grade M1.* Completion of a special course of training in waterworks and demonstration of aptitude in the operation of a waterworks.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.11 to be NR 114.11, Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.12 Grades and classifications. (1) **SEWAGE TREATMENT PLANT OPERATORS.** Individuals holding a valid grade I certificate may operate class I, II, III and IV sewage treatment plants. Individuals holding a valid grade II certificate may operate class II, III and IV sewage treatment plants. Individuals holding a valid grade III certificate may operate class III and IV sewage treatment plants. Individuals holding a valid grade IV certificate may operate class IV sewage treatment plants. Individuals holding a valid grade V certificate may operate class V waste treatment facilities in accordance with Wis. Adm. Code section NR 114.07 (7).

(2) **WATERWORKS OPERATORS.** Individuals holding a valid S1 certificate may operate class S1, G1, P1 and M1 waterworks. Individuals holding a valid G1 certificate may operate class G1, P1 and M1 waterworks. Individuals holding a valid P1 certificate may operate class P1 and M1 waterworks. Individuals holding a valid grade M1 certificate may operate class M1 waterworks.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.12 to be NR 114.12, and am. (1), Register, May, 1971, No. 185, eff. 6-1-71.

NR 114.13 Special operating conditions. Certified operators may be retained on a service contract basis for class P1 and M1 waterworks and class III and IV sewage treatment plants. Class S1 and G1 waterworks and class I and II sewage treatment plants may use the service contract basis only for the period necessary to engage or replace a certified operator employee. Such service contracts shall be approved by the secretary.

History: Cr. Register, August, 1968, No. 152, eff. 9-1-68; renum. from RD 14.13 to be NR 114.13, Register, May, 1971, No. 185, eff. 6-1-71.