

Chapter NR 114

CERTIFICATION REQUIREMENTS FOR WATERWORKS, WASTEWATER TREATMENT PLANT, SEPTAGE SERVICING AND WATER SYSTEM OPERATORS.

Subchapter I — Certification of Waterworks and Wastewater Treatment Plant Operators

- NR 114.01 Purpose.
- NR 114.02 Applicability.
- NR 114.03 Definitions.
- NR 114.04 General requirements.
- NR 114.05 Examinations and applications.
- NR 114.06 Fees.
- NR 114.07 Issuance of certificates.
- NR 114.08 Classification of wastewater treatment plants.
- NR 114.09 Qualifications of wastewater treatment plant operators.
- NR 114.10 Classification of waterworks.
- NR 114.11 Qualification of waterworks operators.
- NR 114.12 Required grades for the operation of waterworks and wastewater treatment plants.
- NR 114.13 Operator-in-charge designation.
- NR 114.14 Sanctions.

Subchapter II — Certification of Septage Servicing Operators

- NR 114.151 Purpose.
- NR 114.152 Applicability.
- NR 114.153 Definitions.
- NR 114.16 General requirements.

- NR 114.17 Certification grades.
- NR 114.18 Operator-in-charge.
- NR 114.19 Examinations and applications.
- NR 114.20 Fees.
- NR 114.21 Issuance of certificates.
- NR 114.22 Certificate renewals.
- NR 114.23 Continuing education and training requirements.
- NR 114.24 Sanctions.
- NR 114.25 Variances.

Subchapter III — Certification of Water System Operators.

- NR 114.26 Purpose.
- NR 114.27 Applicability.
- NR 114.28 Definitions.
- NR 114.29 Classification of water systems.
- NR 114.30 General requirements.
- NR 114.31 Requirements for water system owners.
- NR 114.32 Requirements for water system operators.
- NR 114.33 Applications and examinations.
- NR 114.34 Fees.
- NR 114.35 Issuance of certificates.
- NR 114.36 Renewal of certification.
- NR 114.37 Sanctions.

Note: Pursuant to s. 281.98, Stats., any person who violates this chapter shall forfeit not less than \$10 nor more than \$5,000 for each violation. Each day of continued violation is a separate offense.

Subchapter I — Certification of Waterworks and Wastewater Treatment Plant Operators

NR 114.01 Purpose. The purpose of this subchapter is to establish rules for the certification of waterworks and wastewater treatment plant operators pursuant to s. 281.17 (3), Stats.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95; correction made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540; am., Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.02 Applicability. The provisions of this subchapter are applicable to all owners and operators of waterworks and wastewater treatment plants as defined in this subchapter.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95.

NR 114.03 Definitions. In this subchapter:

(1) "Certificate" means a printed document issued by the department, pursuant to this subchapter, stating that the operator named therein has met the competency requirements for one or more operator grades and subclasses.

(2) "Certified operator" means a person who has met the requirements of this subchapter and has been issued a certificate by the department to work at one or more of the classifications of waterworks or wastewater treatment plants.

(3) "Classification" or "class" means a number assigned to a waterworks or wastewater treatment plant based on a rating system.

(3m) "Community water system" has the meaning given in s. NR 809.04 (4).

Note: Section NR 809.04 (4) defines "community water system" to mean "a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Any public water system serving 7 or more homes, 10 or more mobile homes, 10 or more apartment units, or 10 or more condominium units shall be considered a community water system unless information is available to indicate that 25 year-round residents will not be served."

(4) "Department" means the department of natural resources.

(5) "Direct responsible charge" means to provide detailed on-site technical direction of the operation of a waterworks or wastewater treatment plant.

(6) "Experience in the operation of a waterworks or a wastewater treatment plant" means either:

(a) In the first year of experience, to have performed the basic duties involved with the operation of a specific treatment subclass for 12 months, or to have provided daily on-site technical supervision of the operator or operators performing those duties.

(b) In the additional years of experience, to have performed general duties of operating a wastewater treatment plant for the stated number of years, or to have provided daily on-site technical supervision of the operator or operators performing those duties.

(7) "Grade" means a number indicating the classification assigned to a person based on successful completion of an examination and experience, except that the operator-in-training grade is denoted by the letter "T".

(8) "Industrial wastewater treatment facility" means a privately owned wastewater treatment plant for treating liquid wastes resulting from any process of industry, manufacture, trade or business or the development of any natural resources.

(9) "Major contributing industry" means an industrial or commercial facility that is a user of a publicly owned wastewater treatment plant, and has a waste which the department determines has, or may have, a significant impact, either singly or in combination with other wastes, on the publicly owned wastewater treatment plant or on the quality of effluent from such plants.

(9m) "Non-transient non-community water system" means a non-community water system that regularly serves at least 25 of the same persons over 6 months per year and is not a waterworks as defined in sub. (15). Examples of non-transient non-community water systems include but are not limited to those serving schools, day care centers and factories.

(10) "Operate" means to be in direct responsible charge of a subclass or subclasses of operations at a waterworks or a wastewater treatment plant.

(11) "Operator-in-charge" means the person designated by the owner of a waterworks or wastewater treatment plant to be in direct responsible charge of a subclass of operations of the waterworks or wastewater treatment plant. Not included in this definition are utility managers, city engineers, directors of public works or the equivalent, who are not actually involved in day-to-day operations.

(11m) "Other than municipal community water system" means a community water system that is not a municipal water system and is not a waterworks as defined in sub. (15). Examples of other than municipal community water systems include but are not limited to those serving mobile home parks, apartments and condominiums.

(12) "Owner" means the state, county, town, town sanitary district, city, village, metropolitan sewerage district, corporation, firm, company, institution, association, utility district, school district, joint sewerage commission or individual owning or operating any water or wastewater treatment plant.

(13) "Subclass" means a letter assigned a plant or system based upon a particular type of process at the plant and the letter assigned to a person based on passing an examination for a specific operational process.

(14) "Wastewater treatment plant" means any facility provided for the treatment of sanitary or industrial wastewater or both. The following types of facilities are excluded:

(a) Facilities defined as private sewage systems in s. 145.01 (12), Stats.

(b) Pretreatment facilities from which effluent is directed to a public sewer system for treatment.

(c) Industrial wastewater treatment facilities which consist solely of a land disposal system.

(14m) "Water system" means an other than municipal community or a non-transient non-community water system as defined in subs. (11m) and (9m) respectively.

(15) "Waterworks" means a community water system owned by, or a private utility serving, a county, city, village, town, town sanitary district, utility district or a county-owned or state-owned public institution for congregate care or correction, which includes but is not limited to correctional institutions, correctional camp systems, county jails or houses of correction, mental health institutes, schools for the handicapped, hospitals, infirmaries and asylums.

(16) "WPDES permit" means a Wisconsin pollution elimination system permit issued under ch. 283, Stats.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95; correction in (16) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540; cr. (3m), (9m), (11m) and (14m), am. (16), Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.04 General requirements. No person may be an operator-in-charge of a subclass of a waterworks or wastewater treatment plant unless that person holds a valid certificate issued pursuant to this subchapter. Every subclass at a waterworks or wastewater plant shall have a designated operator-in-charge.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95.

NR 114.05 Examinations and applications.

(1) Examinations and on-the-job experience shall be used to determine knowledge, skill and ability of the applicant to perform duties at a waterworks or wastewater treatment plant. A score of 75% or higher shall be a passing score on each written examination. An applicant desiring to be certified to perform duties at a waterworks or wastewater treatment plant shall submit a completed application to the department at least 28 days prior to the established date of a written examination on an application form provided by the department. Fees as outlined in s. NR 114.06 shall accompany the application. Applicants shall be notified of their eligibility for examination.

(2) Written examinations shall be conducted week days at least 2 times annually in 6 locations specified by the department, except as provided in sub. (3).

(3) Surface water examinations may be given upon written request if the examination is needed to meet the requirements in s. NR 114.12 (2) (d).

(4) Written examinations may not be issued to applicants who have not properly registered 28 days prior to the examination date, or who fail to identify themselves on request.

(5) Examination papers may not be returned to an applicant. Examination results will be mailed to applicant within 60 days of the examination date.

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

(7) The department shall provide a list of reference materials and study guides pertaining to each subclass.

(8) A wastewater treatment plant operator shall take the general and subclass examinations at the introductory or advanced level to become a grade T operator and meet the experience requirements established in s. NR 114.09 to become grade 1 or 2. In order to become certified as a grade 3 or 4 wastewater treatment plant operator, a person shall take the general and subclass examinations at the advanced level and meet the experience requirements established in s. NR 114.09.

(9) An applicant who holds a valid water system certification under subch. III in subclasses Z, I, L or V may apply for and be granted certification in the same waterworks subclasses as listed in s. NR 114.10 without repeating the subclass examination.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95; am. (1) and (2), cr. (9), Register, December, 2000, No. 540, eff. 1-1-01.

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

- (a) Each written examination \$25.00
- (b) Three year renewal-waterworks or wastewater . \$45.00
- (c) Late renewal penalty (per certificate) \$25.00
- (d) Comparable certification (per certificate) \$100.00

(2) Fees shall accompany the completed application form.

(3) The renewal fee is due on the expiration date of the certificate. Any renewal application postmarked after the expiration date shall also include a \$25.00 late renewal penalty.

(4) Fees will not be refunded to an applicant who fails to pass a written certification examination, who fails to appear to take the examination, or who fails to identify himself or herself on request.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95.

NR 114.07 Issuance of certificates. (1) Upon satisfactory fulfillment of the qualifications required by this subchapter, the department shall issue a certificate to a person indicating the grades and subclasses for which the person has qualified.

(2) Certificates may be issued for comparable certification, without examination, in a comparable grade and subclass to any person who holds a current certificate in any state, territory or possession of the United States, or any country, if in the judgment of the department, the person requesting comparable certification has met the equivalent of the provisions of this subchapter in examinations and operational experience.

(3) All certificates shall expire 3 years from the date of issuance. Certificates may be updated to show experience credit granted, additional exams passed or class and grade level changes, but the expiration date will not change. Updating a certificate will not extend or change the expiration date. Certificates shall only be renewed subject to the requirements of sub. (5).

(4) A person whose certificate has expired may, within one year after expiration, be reinstated by paying the renewal fee, the late penalty fee and fulfilling the continuing education requirements. A person not renewing within the one year period after expiration will have to apply to take the necessary examinations for a new certificate.

(5) (a) A person who desires to renew a certificate shall submit evidence of having met the continuing education requirements of par. (b) on forms approved or provided by the department for approved training courses or other credit that they have successfully completed during the 3-year period. These may include, but are not limited to, courses sponsored by the department, or any university, or technical school, technical sessions at meetings of

professional organizations, in-house training and correspondence courses. Failure to successfully complete and document the appropriate number of hours of continuing education training within the 3-year period shall result in rejection of a certificate renewal application.

(b) Applicants shall meet the following continuing education requirements:

1. Wastewater certified operators at Grades T, 1 and 2 require 18 hours per 3 year renewal period.
2. Wastewater certified operators at Grades 3 and 4 require 24 hours per 3 year renewal period.
3. Waterworks certified operators at Grades T and 1 require 18 hours per 3 year renewal period, except the operator-in-charge of a surface water treatment plant will be required to submit 24 hours per 3 year renewal period.

(c) For both waterworks and wastewater treatment certified operators, not more than 6 hours of health and safety training may be used per 3 year renewal period.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95; r. and recr. (5), Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.08 Classification of wastewater treatment plants. (1) Each wastewater treatment plant shall be assigned a class based upon a system of rating values, and shall be assigned one or more subclasses based upon the operations performed at that plant.

(2) Items to be rated and their assigned values are:

- | | | |
|-----|---|----------|
| (a) | Average wet weather design flow is greater than 1.5 MGD | 1 Point |
| (b) | Plant uses 4 to 7 of the processes listed in sub. (4) (a) through (i) | 1 Point |
| (c) | Plant uses more than 7 of the processes listed in sub. (4) (a) to (i) | 2 Points |
| (d) | Treatment required is based on water quality limits for an industrial wastewater treatment facility | 1 Point |
| (e) | Treatment, including seasonal effluent limits, required for biochemical oxygen demand and suspended solids is more stringent than specified in s. NR 210.05 (1) (a) to (d) for a non-industrial wastewater treatment plant. | 1 Point |
| (f) | Plant receives wastewater from a major contributing industry | 1 Point |

(3) Each wastewater treatment plant shall be assigned a plant class based upon the sum of rating values in sub. (2) that apply to the plant. The following classes are established:

Class 1	0 Points
Class 2	1 Point
Class 3	2 Points
Class 4	3 Points or more

(4) The following subclasses are established:

- (a) *Subclass A.* Primary treatment
- (b) *Subclass B.* Trickling filters and rotating biological contactors
- (c) *Subclass C.* Activated sludge
- (d) *Subclass D.* Stabilization ponds and aerated lagoons
- (e) *Subclass E.* Disinfection
- (f) *Subclass F.* Anaerobic digestion
- (g) *Subclass G.* Mechanical sludge dewatering and treatment
- (h) *Subclass H.* Filtration
- (i) *Subclass I.* Phosphorus removal
- (j) *Subclass J.* On-site laboratory testing

(k) *Subclass K.* Special – generally for treatment plants using chemical or physical treatment, or both.

(L) *Subclass L.* Electroplating and metal finishing

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95.

NR 114.09 Qualifications of wastewater treatment plant operators. (1) Five grades and 12 subclasses of wastewater treatment plant operators are established. Operator subclasses are the same as plant subclasses listed in s. NR 114.08 (4).

To qualify for certification in a given grade and subclass, a person shall meet the appropriate experience and examination requirements for that subclass and grade.

(a) *Grade T.* Pass the written introductory or advanced examination for a given plant subclass and the written introductory or advanced general examination.

(b) *Grade 1.* Completion of grade T requirements, plus have one year of satisfactory subclass specific experience.

(c) *Grade 2.* Completion of grade 1 requirements plus one additional year of satisfactory experience in the general operation of a wastewater treatment plant. A person certified at Grade 1 on October 1, 1995 shall pass the written introductory or advanced general and written introductory or advanced examination for each subclass to be certified at the Grade 2 level, in addition to gaining the appropriate experience.

(d) *Grade 3.* Completion of grade 2 requirements, plus one additional year of satisfactory experience in the general operation of a wastewater treatment plant, plus pass a written advanced level examination for a given wastewater treatment plant subclass and pass the written advanced general examination.

(e) *Grade 4.* Completion of grade 3 requirements, plus one additional year of satisfactory experience in the general operations of a wastewater treatment plant. A person certified at Grade 3 on October 1, 1995 shall pass the written advanced general and written advanced examination for each subclass to be certified at the Grade 4 level, in addition to gaining the appropriate experience.

(2) A person may have a different grade for each subclass in which the person has received certification.

(3) A general examination is not required for subclasses K and L and one subclass examination will cover all grade levels for these 2 subclasses.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95.

NR 114.10 Classification of waterworks. The classification of each waterworks shall be class 1 and assigned one or more of the applicable subclasses based on the operations performed at that plant.

(1) **SUBCLASS G – GROUNDWATER SOURCE.** All waterworks utilizing a groundwater source.

(2) **SUBCLASS Z – ZEOLITE AND RESIN TREATMENT.** All waterworks providing zeolite softening or specific contaminant removal by resins.

(3) **SUBCLASS I – OXIDATION AND FILTRATION TREATMENT.** All waterworks providing iron removal by oxidation and filtration.

(4) **SUBCLASS L – LIME-SODA ASH TREATMENT.** All waterworks providing treatment by the lime-soda ash process for iron removal or softening, or both.

(5) **SUBCLASS S – SURFACE WATER SOURCE.** All waterworks utilizing a surface water source.

(6) **SUBCLASS D – DISTRIBUTION SYSTEM.** All waterworks containing a distribution system.

(7) **SUBCLASS V – SPECIALIZED TREATMENT.** All waterworks providing special treatment such as, but not limited to, air stripping, granular activated carbon or others.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95; am. (1) to (7), Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.11 Qualification of waterworks operators.

(1) Two grades and 7 subclasses of waterworks operators are

established. To qualify for certification in a given grade and subclass, a person shall meet the appropriate experience and examination requirements for that subclass and grade:

(a) *Grade T*. Pass the written examination for the given waterworks subclass.

(b) *Grade 1*. Completion of grade T requirements, plus have one year of satisfactory subclass specific experience.

(2) A person may have a different grade for each subclass in which the person has received certification.

(3) Operator subclasses are the same as waterworks subclasses listed in s. NR 114.10.

(4) To qualify for certification in any of the subclasses established in s. NR 114.10, the person shall meet the requirements of either par. (a) or (b).

(a) The person shall possess a high school diploma or a general equivalency diploma.

(b) The person shall have a minimum of 2 years experience operating a waterworks prior to December 1, 2000.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95; cr. (4), Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.12 Required grades for the operation of waterworks and wastewater treatment plants.

(1) **WASTEWATER TREATMENT PLANTS.** (a) The operator-in-charge of a subclass of operations at a wastewater treatment plant listed in s. NR 114.08 (4) shall hold a valid certificate for the corresponding subclass at a grade the same as, or higher than, the plant class, except as provided in pars. (b) to (d).

(b) A person certified as a wastewater treatment plant operator may be the operator-in-charge of a subclass of a plant that is one class level higher than their certification grade for a period not to exceed one year, provided that the department is satisfied with the person's progress towards full certification and that the facility is in compliance with all terms and conditions of its WPDES permit.

(c) The total time allowed under par. (b) at a facility may not exceed one year.

(d) Upon a change in a wastewater treatment plant's classification caused by the addition of a subclass listed in s. NR 114.08, the operator-in-charge shall have 12 months to pass necessary examinations and will be allowed time to obtain the required experience.

(2) **WATERWORKS.** (a) The operator-in-charge of the operation of a subclass of waterworks listed in s. NR 114.10 shall hold a valid certification for the corresponding subclass at the grade 1 level, except as provided in pars. (b) and (c).

(b) A person certified as a waterworks operator-in-training may be designated the operator-in-charge of that subclass of waterworks for a period not to exceed one year.

(c) Upon a change in a waterworks' classification, the operator-in-charge shall have 12 months to pass the necessary examinations and will be allowed time to obtain the required experience.

(d) At subclass S waterworks, the system shall have a person certified at Grade T or 1 in Subclass S on duty at all times of operation. If the designated operator-in-charge of a subclass S waterworks is not on duty during the operation of the system, the waterworks shall have another operator certified at Grade T or 1 in subclass S on duty during the operation of the system. If an operator position becomes vacant at a subclass S waterworks, the department may allow a system to operate a shift without a certified operator on duty as long as the non-certified operator on duty is working under the general supervision of a certified operator and the waterworks is making a good faith effort to fill the vacant position. On duty for subclass S waterworks means having a certified operator onsite except where the department has approved an automated treatment plant surveillance system and an operation plan for offsite control as a reliable substitute for having a certified operator on-site. In the review of automated systems, the department shall consider applicable factors, such as history of plant

operations, response time to alarms, offsite treatment adjustment capability, plant shutdown ability and demonstration of satisfactory operation and reliability of the automation system.

Note: For all facilities it is recommended that a second person hold a valid certificate at the grade level required by the plant classification.

(e) The operator-in-charge of the operation of a subclass of waterworks shall be available during each operating shift. The operator-in-charge may designate, on a temporary basis, such as vacation or short term illness, an operator of appropriate subclass, to be available during each operating shift.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95; am. (2) (d) and cr. (2) (e), Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.13 Operator-in-charge designation. The owner shall designate to the department the operator-in-charge of each subclass as required in s. NR 114.12 (1) and (2). A person may be designated as the operator-in-charge for more than one subclass. Owners shall notify the department of changes within 30 days.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95.

NR 114.14 Sanctions. (1) The department may, on its own motion, make investigations and conduct hearings and may, on its own motion or on a signed and verified written complaint, revoke, suspend or refuse to renew as provided in this section any operator's certificate, or reprimand the operator if the department finds that the holder of the certificate has done any of the following:

(a) Made a material misstatement in the application for certification or any application for a renewal of certification.

(b) Demonstrated incompetence to operate the type of facility or subclass for which the certificate was issued.

(c) Bypassed a discharge at a wastewater treatment plant in violation of the plant's WPDES permit without notifying the department.

(d) Failed to comply with any other provision requiring department notification in the facility's WPDES permit.

(e) Failed to notify the department of a violation of a maximum contaminant level as required in ch. NR 809 and the construction requirements of ch. NR 811 by the operator-in-charge of a waterworks operation.

(f) Failed to provide public notification of a violation of ch. NR 809.

(g) Falsified any monitoring, operating or other records submitted to the department, or provided by the department.

(h) By intentional or negligent action, caused or significantly contributed to a violation of any provision of ch. 281 or 283, Stats., or any administrative codes, permits or orders adopted or issued under those chapters.

(i) Used deception or any form of dishonesty when writing examinations, or removing examination materials from the examination site.

(2) Notice of revocation of, suspension of or refusal to renew a certificate shall be served on the certified operator and shall state the reasons for revocation, suspension or refusal to renew.

(3) Revocation of, suspension of or refusal to renew a certificate shall take effect on the 10th day after the notice is served, unless the certified operator files a written answer with the department prior to the 10th day. If an answer is filed, the revocation, suspension of or refusal to renew is stayed and the department shall conduct a hearing on the matter within 30 days after receipt of the answer. At least 10 days prior to the date of the hearing, the department shall send a written notice to the operator indicating the date, time and location of the hearing. The final determination of the department, including the basis for the decision, shall be provided in writing to the operator. A suspended operator may not be the operator-in-charge of a facility for the duration of the suspension.

(4) Application may be made for taking the necessary examinations for a new certificate one year after the date of revocation or refusal to renew.

(5) Any order revoking or suspending a certificate is subject to judicial review as provided in ch. 227, Stats.

History: Cr. Register, September, 1995, No. 477, eff. 10-1-95; corrections in (1) (h) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540; am. (1) (h), Register, December, 2000, No. 540, eff. 1-1-01.

Subchapter II — Certification of Septage Servicing Operators

NR 114.15 Purpose. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; correction made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.16 Applicability. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.17 Definitions. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.18 General requirements. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.19 Certification grades. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.20 Examinations and applications. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.21 Fees. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.22 Issuance of certificates. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.23 Certificate renewals. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; correction in (4) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.24 Continuing education. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.25 Sanctions. **History:** Cr. Register, September, 1995, No. 477, eff. 10-1-95; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540; **CR 04-047: r. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.151 Purpose. The purpose of this subchapter is to establish rules for the certification of septage servicing operators pursuant to s. 281.17 (3), Stats.

History: **CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.152 Applicability. The provisions of this subchapter are applicable to all owners of septage servicing businesses and all operators performing septage servicing.

History: **CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.153 Definitions. In the subchapter:

(1) “Business” means a business licensed under s. NR 113.05 that does septage servicing.

(2) “Certificate” means a certificate issued under s. NR 114.21.

(3) “Certified operator” means a person who has been issued a certificate by the department to do septage servicing.

(4) “Grade” means the classification assigned to a person under s. NR 114.17.

(5) “Operator-in-charge” means the certified operator who has been designated by the owner to be in direct responsible charge of the septage servicing business.

(6) “Operator-in-training” means a person who has been properly registered as an operator-in-training with the department by the operator-in-charge.

(7) “Owner” means the holder of a septage service business license issued under s. NR 113.05.

(8) “Portable restroom servicing assistant” means a person who maintains, services or transports portable restrooms under the supervision of an operator-in-charge.

(9) “Septage” means the wastewater or contents of septic or holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies or portable restrooms.

(10) “Septage servicing” means removing septage from a system and disposing of or recycling the septage.

(11) “Service shop” means a shop from which work is dispatched.

History: **CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.16 General requirements. (1) Only a certified operator, operator-in-training or a portable restroom servicing assistant, may engage in septage servicing.

(2) An operator-in-training may engage in septage servicing for up to 12 months without being certified. The operator-in-training shall be considered to be doing septage servicing under the certificate of the designated operator-in-charge. The operator-in-charge shall notify the department, in writing, of the starting date, name and address of the operator-in-training and pay the operator-in-training fee before the person begins septage servicing. The operator-in-charge is responsible for the actions of the operator-in-training.

(3) A portable restroom servicing assistant may service portable restrooms, including the maintenance of portable restrooms and the transportation of the restrooms and the septage from them without being certified. However, a portable restroom servicing assistant may not land apply any septage removed from portable restrooms. Portable restroom servicing assistants will be considered to be working under the certificate of the designated operator-in-charge and the operator-in-charge is responsible for their actions.

(4) Each owner shall have a unique business license issued under s. NR 113.05, for any service shop that is more than 25 miles from another service shop.

(5) A vehicle used by different businesses, under a single owner, or separate owners, shall be registered under each business license and each business license number shall be displayed on the vehicle.

(6) A business license is not transferable.

History: **CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.17 Certification grades. (1) Two general certification grades of septage servicing operators are established.

(a) A grade T operator is certified to conduct all aspects of septage servicing except the land application of septage. To qualify for certification as a grade T operator, a person shall pass the grade T examination.

(b) A grade L operator is certified to conduct all aspects of septage servicing including the land application of septage. To qualify for certification as a grade L operator, a person shall pass the grade L examination.

(2) Any operator certified as a grade 1R on December 1, 2004, will automatically become certified as a grade T operator on that date.

(3) Any operator certified as either a grade 1 or a grade 2 operator on December 1, 2004, will automatically become certified as a grade L operator on that date.

History: **CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.**

NR 114.18 Operator-in-charge. (1) The owner of a licensed business shall designate to the department the operator-in-charge of the business based upon their type of business and method of septage disposal as follows:

(a) If a septage servicing business does not conduct any land application of septage, the operator-in-charge shall be a grade T or a grade L operator.

(b) If a septage servicing business does conduct any land application, the operator-in-charge shall be a grade L operator.

(2) A person designated as an operator-in-charge on December 1, 2004, with a Grade 1R certification shall automatically become designated as a grade T operator-in-charge and a person designated as a grade 2 operator-in-charge shall automatically become designated as a grade L operator-in-charge.

(3) Any person not designated as an operator-in-charge in sub. (2) or not exempted in sub. (4) or (5) shall accrue at least 1600 hours of experience working in their designated grade over at least one calendar year, participate in a mandatory training class sponsored by the department and pass an examination associated with that class in order to become designated an operator-in-charge in the future. The class and examination may be taken prior to obtaining the required experience. The time and experience requirements shall be documented by the applicant through submittal of a notarized certification statement. The department may verify information submitted on a case-by-case basis.

(4) Any person certified as a Grade 1R or a Grade 1, and not already designated as an operator-in-charge under sub. (2), who completes 9 years of continuous certification with no violations or citations within 3 years of December 1, 2004, is exempt from the training class, examination, and experience requirements in sub. (3).

(5) Any person certified as a Grade 2 is exempt from the training class, examination, and experience requirements in sub. (3).

(6) Owners shall notify the department of any change of the designated operator-in-charge within 15 days of the change.

History: CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.

NR 114.19 Examinations and applications. (1) The department shall use examinations to determine the knowledge and ability of an applicant to do septage servicing. A score of 75% or higher shall be a passing score on each written examination. The department may give oral examinations in lieu of the written examination upon a showing that the applicant has difficulty reading the written examination and if the applicant can demonstrate the ability to properly perform septage servicing without a better reading ability. A score of 75% or higher shall be a passing score on each oral examination. Electronic examinations will be acceptable as administered by the department should that technology become available at a future date.

(2) The department shall conduct written examinations on weekdays at least 2 times annually in all 5 department regions.

(3) A person desiring to be certified shall file an application with the department at least 28 days prior to the established date of a written examination on an application form provided by the department. Fees shall accompany the completed application.

(4) Written examinations may not be issued to applicants who have not properly registered 28 days prior to the examination date, or who fail to identify themselves on request.

(5) Examination papers may not be returned to an applicant. Examination results shall be mailed to the applicant within 30 days of the examination date.

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

(7) Notwithstanding subs. (2) to (4), the department may allow for the examinations to be given at more frequent intervals and at locations to be determined, in addition to the twice annual examinations specified in sub. (2), and may waive the 28 day application requirement specified in sub. (3). Fees shall be submitted no later than the date of the examination in those cases.

(8) The requirements of sub. (6) notwithstanding, applicants who fail the examination associated with the mandatory class required in s. NR 114.18 (3) may retake the examination at a regional office whenever a mutually agreed time can be scheduled.

History: CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.

NR 114.20 Fees. (1) Fees for certification shall be as follows:

- (a) Each written or oral examination --- \$100.00
- (b) Certificate renewal --- \$65.00
- (c) Late renewal penalty per certificate --- \$100.00
- (d) Septage operator-in-training registration --- \$25.00

(2) The department may not refund fees to an applicant who fails to pass an examination, who fails to appear to take an examination, or who fails to identify themselves on request.

(3) All fees collected under this section shall be used by the department for the purposes of implementing this subchapter and ch. NR 113.

Note: It is the department's intent to work with the legislature to amend s. 281.48(4s), Stats., to allow an increase in vehicle licensing fees to further aid in implementing this subchapter and ch. NR 113.

History: CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.

NR 114.21 Issuance of certificates. Upon satisfactory fulfillment of the qualifications required by this subchapter and receipt of the certification fee, the department shall issue a certificate to an applicant indicating the operator grade for which the applicant has qualified.

History: CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.

NR 114.22 Certificate renewals. (1) All certificates shall expire 3 years from the date of issuance. The renewal fee is due on the expiration date of the certificate. Any renewal application postmarked after the expiration date shall also include the late renewal penalty fee.

(2) A person who desires to renew a certificate shall submit evidence of having met the continuing education requirements in s. NR 114.23 for approved training courses or other credit which they have successfully completed during the 3 year period. Failure to successfully complete and document the appropriate number of hours of approved training within the 3 year period shall result in rejection of a certificate renewal application.

(3) A person whose certificate has expired may within one year be reinstated by paying the renewal fee, the late penalty fee and fulfilling the continuing education requirements. Operators may not renew their certificates by taking certification examinations in lieu of obtaining continuing education credits unless their certificate has been expired for at least one year. Operators may not continue to work with an expired certificate.

History: CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.

NR 114.23 Continuing education and training requirements. (1) Grade T and grade L certified septage operators shall obtain 3 hours of continuing education credits every 3 years.

(2) All grade T and grade L operators-in-charge shall obtain 18 hours of continuing education every 3 years.

(3) The department shall develop or approve training relevant to the septage servicing profession sufficient to fulfill the continuing education requirements of this subchapter. The training shall be offered at frequencies and at diverse enough locations around the state so as to facilitate fulfillment of these requirements.

(4) The mandatory training class for designation as an operator-in-charge shall be offered at least twice a year and will cover topics relevant to the septage servicing business and will cover both land application and disposition of septage at wastewater treatment facilities.

(5) Any certified operator may voluntarily participate in the mandatory training class required under s. NR 114.18 (3), even if not required to, and may receive the associated continuing education credit.

History: CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.

NR 114.24 Sanctions. (1) The department shall revoke an operator's certification and may not issue or renew a certificate for septage servicing for a period of 2 years if an operator has accumulated 6 or more violations of ch. NR 113 or s. 29.601, Stats., in any 3 year certification period. Enforcement may be taken against the operator, the operator-in-charge responsible for the operator, or both. Each violation shall count against the business for purposes of license renewal as specified in s. NR 113.05 (3).

(2) The department may, on its own motion, make investigations and conduct hearings and may, on its own motion or on a signed and verified written complaint, revoke, suspend, refuse to issue, or refuse to renew any operator's certificate if the department finds that the holder of or applicant for a certificate does any of the following:

(a) Uses deception or any form of dishonesty when writing examinations, or removes examination material from an examination site.

(b) Demonstrates incompetence to perform septage servicing as required by this chapter.

(c) Falsifies any required applications, operating records or any other records submitted to the department.

History: CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.

NR 114.25 Variances. (1) **GENERAL.** A certified septage operator may request a variance from any non-statutory requirement of this chapter. The department may approve a variance from requirements of this chapter when special circumstances show that a variance will not negatively impact the environment or pose a threat to public health.

(2) **REQUEST FOR VARIANCE.** An applicant for a variance shall submit a written request for a variance to the department, as far in advance as possible. Each request for a variance shall contain all of the following:

(a) The name, address, phone number and operator certification number of the applicant.

(b) The section or sections of this chapter from which a variance is sought and a statement explaining why it is requested.

(c) A full description of the variance and the circumstances in which it will be used, including any pertinent background information which is relevant to making a determination on the justification for granting the variance.

(d) A statement as to whether the same or similar variance has been requested previously, and if so, outcome of the previous request.

(3) **APPROVAL OF VARIANCE.** The department shall approve or deny the variance in writing. A copy of each variance request and the department's decision shall be retained by the operator.

History: CR 04-047: cr. Register November 2004 No. 587, eff. 12-1-04.

Subchapter III — Certification of Water System Operators.

NR 114.26 Purpose. The purpose of this subchapter is to establish rules for the certification of water system operators pursuant to s. 281.17 (3), Stats.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.27 Applicability. The provisions of this subchapter are applicable to all owners and operators of water systems as defined in this subchapter.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.28 Definitions. In this subchapter:

(1) "Certificate" means a printed document issued by the department, pursuant to this subchapter, stating that the operator named therein has met the competency requirements for certification.

(2) "Certified operator" means a person who has met the requirements of this subchapter and has been issued a certificate by the department to work at a water system.

(3) "Classification" or "class" means a number assigned to a water system based on a rating system.

(4) "Community water system" has the meaning given in s. NR 809.04 (4).

Note: Section NR 809.04 (4) defines "community water system" to mean "a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Any public water system serving 7 or more homes, 10 or more mobile homes, 10 or more apartment units, or 10 or more condominium units shall be considered a community water system unless information is available to indicate that 25 year-round residents will not be served."

(5) "Department" means the department of natural resources.

(6) "Direct responsible charge" means the responsibility to provide detailed on-site technical direction of the operation of a water system.

(7) "Operate" means to be in direct responsible charge of a subclass of operations at a water system.

(8) "Operator-in-charge" means the person designated by the owner of a water system to be in direct responsible charge of a subclass of operations of the water system. Not included in this definition are managers, engineers, directors or the equivalent, who are not actually involved in day-to-day operations of the system.

(9) "Owner" means the state, county, town, town sanitary district, city, village, metropolitan sewerage district, corporation, firm, company, institution, association, utility district, school district, joint sewerage commission or individual owning or operating any water system.

(10) "Subclass" means a letter assigned a plant or system based upon a particular type of process at the plant and the letter assigned to a person based on passing an examination for a specific operational process.

(11) "Water system" means an other than municipal community or a non-transient non-community public water system as defined in pars. (a) and (b):

(a) "Other than municipal community water system" means a community water system that is not a municipal water system and is not a waterworks as defined in sub. (11). Examples of other than municipal community water systems include, but are not limited to, those serving mobile home parks, apartments and condominiums.

(b) "Non-transient non-community water system" means a non-community water system that regularly serves at least 25 of the same persons over 6 months per year and is not a waterworks as defined in sub. (11). Examples of non-transient non-community water systems include, but are not limited to, those serving schools, day care centers and factories.

(12) "Waterworks" means a community water system owned by, or a private utility serving, a county, city, village, town, town sanitary district, utility district or a county-owned or state-owned public institution for congregated care or correction, which includes but is not limited to correctional institutions, correctional camp systems, county jails or houses of correction, mental health institutes, schools for the handicapped, hospitals, infirmaries and asylums.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.29 Classification of water systems. (1) The classification of each water system shall be class 1 and assigned one or more of the applicable subclasses listed in sub. (3) based on the operations performed at the system.

(2) Each water system shall be assigned a minimum of subclass O and additional subclasses for each treatment or process utilized and listed in sub. (3).

(3) The following subclasses are established for both water system classifications and operator certification:

(a) *Subclass O – General water system operation.* All water systems utilizing a groundwater source, surface water source, or purchased water from a waterworks. Any operator who holds a valid waterworks certification under subch. I in subclasses G, D or S may also operate this water system subclass.

(b) *Subclass Z – Zeolite and resin treatment.* All water systems providing zeolite softening or specific contaminant removal by resins. Any operator who holds a valid waterworks certification under subch. I in subclass Z may operate this water system subclass.

(c) *Subclass I – Oxidation and filtration treatment.* All water systems providing iron removal by oxidation and filtration. Any operator who holds a valid waterworks certification under subch. I in subclass I may also operate this water system subclass.

(d) *Subclass L – Lime-soda ash treatment.* All water systems providing treatment by the lime-soda ash process for iron removal or softening, or both. Any operator who holds a valid waterworks certification under subch. I in subclass L may operate this water system subclass.

(e) *Subclass V – Specialized treatment.* All water systems providing special treatment such as, but not limited to, air stripping, granular activated carbon or others. Any operator who holds a valid waterworks certification under subch. I in subclass V may also operate this water system subclass.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.30 General requirements. Every water system shall have a designated operator-in-charge. No person may be an operator-in-charge of a water system subclass unless that person holds a valid certificate for that subclass issued pursuant to this chapter.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.31 Requirements for water system owners.

The owner of a water system shall designate to the department the operator-in-charge of the water system. The designated operator-in-charge shall meet the requirements stated in s. NR 114.32. A person may be designated as the operator-in-charge for more than one subclass. Owners shall notify the department of changes within 30 days.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.32 Requirements for water system operators. (1) To qualify for certification in any of the subclasses established in s. NR 114.29, the person shall meet the requirements of either par. (a) or (b).

(a) The person shall possess a high school diploma or a general equivalency diploma.

(b) The person shall have a minimum of 2 years experience operating a water system prior to December 1, 2000.

(2) To qualify for certification in any of the subclasses established in s. NR 114.29, a person shall submit a completed application and successfully pass the examination for that subclass as stated in s. NR 114.33.

(3) The operator-in-charge of the operation of a water system subclass listed in s. NR 114.29 shall hold a valid certification for that subclass, except as noted in sub. (4).

(4) Upon the addition of a subclass treatment process to a water system, the operator-in-charge of the system shall have 12 months to pass the necessary examinations and meet the requirements specified under this section.

(5) The operator-in-charge of a water system shall be available during each operating shift.

(6) To continue certification under this subchapter, each certified water system operator shall renew his or her certificate every 3 years as specified in s. NR 114.36.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.33 Applications and examinations. (1) A person desiring to be certified to perform duties at a water system shall submit a completed application form to the department at least 28 days prior to the established date of a written examination. Fees as outlined in s. NR 114.34 shall accompany the application form. Applicants shall be notified of their eligibility for examination.

(2) Examinations shall be used to determine knowledge, skill and ability of the applicant to perform duties at a water system. A score of 75% or higher shall be a passing score on each written examination.

(3) Written examinations shall be conducted at least 2 times annually in 6 locations specified by the department.

(4) Examinations for water system operations may not be issued to applicants who have not properly registered or who fail to identify themselves on request.

(5) Examination papers may not be returned to an applicant. Examination results will be mailed to applicant within 60 days of the examination date.

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

(7) The department shall provide a list of reference materials and study guides pertaining to each water system subclass.

(8) An applicant who holds a valid waterworks certification under subch. I in subclasses Z, I, L or V may apply for and be granted certification in the same water system subclasses as listed in s. NR 114.29 without repeating the subclass examination.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.34 Fees. (1) Fees for certification shall be as follows:

- (a) Each written examination \$25.00
- (b) Three year renewal (per certificate) \$45.00
- (c) Late renewal penalty (per certificate) \$25.00
- (d) Reciprocal certification (per certificate) 100.00

(2) Fees shall accompany a completed application form.

(3) The renewal fee is due on the expiration date of the certificate. Any renewal application postmarked after the expiration date shall also include a \$25.00 late renewal penalty.

(4) Fees may not be refunded to an applicant who fails to pass a written certification examination, who fails to appear to take the examination or who fails to identify himself or herself on request.

(5) The department shall collect these fees pursuant to s. 281.17 (3), Stats., for uses including the administration of this chapter.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.35 Issuance of certificates. (1) Upon satisfactory fulfillment of the qualifications required by this subchapter, the department shall issue a certificate to a person indicating the water system subclasses for which the person has been certified.

(2) Certificates may be issued for reciprocal certification, without examination, in a comparable subclass to any person who holds a current certificate in any state, territory or possession of the United States, or any country, if in the judgment of the department, the person requesting reciprocal certification has met the equivalent of the provisions of this subchapter in examinations.

(3) All certificates shall expire 3 years from the date of issuance. Certificates may be updated to show additional subclasses after passing an examination, but the original expiration date shall remain on the certificate. Updating a certificate for any

reason, except renewal of certification as described in s. NR 114.36 does not extend or change the expiration date. Certificates shall only be renewed subject to the requirements of s. NR 114.36.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.36 Renewal of certification. (1) A person who desires to renew a certificate shall submit a renewal application, the renewal fee and evidence of fulfilling the continuing education requirements of sub. (2).

(2) Certified water system operators require 6 hours of continuing education per 3-year renewal period. Evidence of these hours shall be submitted on forms approved or provided by the department for department required or approved training courses that they have successfully completed during the 3 year period. These may include, but are not limited to courses sponsored by the department, courses at any university or technical school, technical sessions at meetings of professional organizations, in-house training and correspondence courses.

(3) Failure to successfully complete and document the appropriate number of hours of continuing education training within the 3-year period shall result in rejection of a certificate renewal application.

(4) A person whose certification has expired may, within one year after expiration, be reinstated by submitting a renewal application, the renewal fee, the late penalty fee and evidence of the continuing education requirements of sub. (2). A person not renewing within the one-year period after expiration will have to apply to take the necessary examinations for a new certificate.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.

NR 114.37 Sanctions. (1) The department may, on its own motion, make investigations and conduct hearings and may, on its own motion or on a signed and verified written complaint, revoke, suspend or refuse to renew as provided in this section any operators certificate, or reprimand the operator if the department finds that the holder of the certificate has done any of the following:

(a) Made a material misstatement in the application for certification or any application for a renewal of certification.

(b) Demonstrated incompetence to operate the system.

(c) Failed to notify the department of a violation of a maximum contaminant level as required in ch. NR 809 or the construction requirements of ch. NR 811 by the operator-in-charge of a water system operation.

(d) Failed to provide public notification of a violation of ch. NR 809.

(e) Falsified any monitoring, operating or other records submitted to the department, or provided by the department.

(f) By intentional or negligent action, caused or significantly contributed to a violation of any provision of ch. 281 or 283, Stats., or any administrative codes, permits or orders adopted or issued under those chapters.

(g) Used deception or any form of dishonesty when writing examinations, or removing examination materials from the examination site.

(2) Notice of revocation of, suspension of or refusal to renew a certificate shall be served on the certified operator and shall state the reasons for revocation, suspension or refusal to renew.

(3) Revocation of, suspension of or refusal to renew a certificate shall take effect on the 10th day after the notice is served, unless the certified operator files a written answer with the department prior to the 10th day. If an answer is filed, the revocation, suspension of or refusal to renew is stayed and the department shall conduct a hearing on the matter within 30 days after receipt of the answer. At least 10 days prior to the date of the hearing, the department shall send a written notice to the operator indicating the date, time and location of the hearing. The final determination of the department, including the basis for the decision, shall be provided in writing to the operator. A suspended operator may not be the operator-in-charge of a facility for the duration of the suspension.

(4) Application may be made for taking the necessary examinations for a new certificate one year after the date of revocation or refusal to renew.

(5) Any order revoking or suspending a certificate is subject to judicial review as provided in ch. 227, Stats.

History: Cr. Register, December, 2000, No. 540, eff. 1-1-01.