

**PROPOSED ORDER OF THE STATE OF WISCONSIN
DEPARTMENT OF NATURAL REOSURCES
AMENDING, REPEALING AND RECREATING AND CREATING RULES**

The Wisconsin Natural Resources Board proposes an order to repeal NR 114.03(6)(b), (8), and (9), NR 114.03(14), (a), (b), (c), and (16), NR 114.05(8), NR 114.07(5)(b)1., and (b)2., NR 114.08, NR 114.09, NR 114.12(1)(a), (b), (c), and (d), NR 114.14(1)(c), and (d) NR 114.14(1)(c), and (d); to amend subch. I NR 114 (title), NR 114.01, NR 114.02, NR 114.03 (2), (3), (5), and (6), NR 114.03(10), (11), (12), and (13), NR 114.04, NR 114.05(1), NR 114.06(1)(b), NR 114.07(5)(c), NR 114.10(title), NR 114.12 (title), NR 114.14(1)(h); to create subch. IV of ch. NR 114 relating to certification of waterworks and wastewater treatment plant operators by the Department of Natural Resources.

WT-29-09

Analysis Prepared by Department of Natural Resources

1. Statutory authority: Section 227.11, Stats.

2. Statutes interpreted: Section 281.17 (3), Stats.

3. Explanation of agency authority:

Chapter 281, Stats. – Water and Sewage, grants authority to the Department to serve, to protect, maintain and improve the quality and management of the waters of the state, ground and surface, public and private. To the end that these vital purposes may be accomplished, all rules and orders promulgated under chapter 281, Stats., are to be liberally construed in favor of the policy objectives set forth in the chapter. Section 281.17 (3), Stats., specifically directs the department to promulgate rules establishing an examining program for certifying wastewater treatment system and plant operators.

4. Related statute or rule:

Chapter NR 114, Wis. Adm. Code, relates to regulation of wastewater discharges in the chapter NR 200, Wis. Adm. Code, series of rules. The quality of the discharge from wastewater treatment plants directly relates to the design and construction of the facility, as well the knowledge and competency of the operators, who run and manage the state’s wastewater treatment plants. A well operated and managed wastewater treatment plant produces a high quality effluent thus protecting and maintaining water quality in the state.

5. Plain language analysis:

Operator certification requirements in Wisconsin originated with Chapter 614, Wisconsin laws of 1965. After passage of the Clean Water Act of 1972, the operator certification program became more solidified with the establishment of wastewater treatment plant classifications (1,2,3,4) and numerous subclasses. Study guides and exams were developed for operators of the

different classes and subclasses of treatment plants. The Bureau of Science Services administers the certification program, while the Bureau of Water Quality provides the technical base and support. Examinations are given in each of the regions twice a year in May and November.

The program underwent code revisions in the 1990's and currently has a critical need of revisions with the advent of changes and innovation in computer and wastewater technologies over the past two decades. Wisconsin permits over 1000 industrial and municipal wastewater treatment works and has 2400 certified operators operating these wastewater facilities. In the past 25 years, most treatment plants have received more stringent effluent limitations, and have become more complex and technologically advanced through upgrading and new construction. Well operated and maintained wastewater treatment works (sewer systems and treatment plants) by knowledgeable and skilled operators directly translates into protections of public health and the environment. Increased competency of operators also results in more consistent and improved compliance with Wisconsin Pollutant Discharge Elimination System (WPDES) permit requirements. This then leads to fewer instances of noncompliance and a lowered potential for costs due to enforcement of permit violations by the Department.

Chapter NR 114, Subchapter I – Certification of Waterworks and Wastewater Treatment Plant Operators, Wis. Adm. Code, is being repealed and recreated to achieve five objectives: (1) update and revise treatment plant classifications and subclasses to reflect new and changed technologies; (2) eliminate advanced certification examinations and replace them with an advanced certification point system to allow operators more flexibility and educational options towards advancement; (3) expand certification to include sanitary sewer collection systems; (4) provide more options for a new generation of operators to gain knowledge and competency through on-line classes and apprenticeship opportunities; and (5) separate the certification requirements for waterworks and wastewater works operators for improved readability and understanding.

Chapter NR 114, Wis. Adm. Code, establishes revised plant classification levels (basic or advanced) and subclasses; an advanced certification point system; future certification requirements for sanitary sewer collection systems and a fair conversion (grandfathering) process of transferring existing operators into the new certification system.

6. Summary and comparison with existing and proposed federal regulations:

While 33 USC 1251, federal Clean Water Act, does not mandate operator certification for wastewater treatment plants, the need for operating and maintaining wastewater treatment plants properly by knowledgeable and highly skilled operators is recognized by all states. All fifty states have wastewater treatment plant operator certification programs.

7. Comparison of similar rules in adjacent states:

All U.S. Environmental Protection Agency (EPA) Region 5 states (Illinois, Indiana, Michigan, Minnesota, and Ohio) have wastewater treatment plant operator certification programs. These certification programs are based on examination and experience.

Of the EPA Region 5 states, Ohio is the only state that requires a certified operator in charge for wastewater collection systems. Minnesota requires a collection system certificate for operation of wastewater collection, pumping, and conveyance facilities that are managed separately from the wastewater treatment facility. Illinois offers a voluntary wastewater collection system operator certificate while, Indiana and Michigan do not offer state certification.

ILLINOIS: In Illinois, a voluntary collection system operator certification is available for wastewater operators. The certification is administered by the Illinois State Environmental Protection Agency's Bureau of Water. Prerequisites for certification include a high school diploma (or equivalent), 6 months collection system operating experience and the equivalent of 6 months substitution experience. There is only one level of voluntary certification offered.

INDIANA: The Indiana Department of Environmental Management, who oversees certification of Wastewater Operators, does not offer collection system certification. The professional member association, Indiana Water Environment Association has a Collection System Committee (30+ members) who administer a voluntary collection system operation certification at 4 levels for wastewater operators.

MICHIGAN: The State of Michigan's Department of Environmental Quality, who certifies Wastewater Operators, does not offer certification for collection systems.

MINNESOTA: The Minnesota Pollution Control Agency (MPCA) , who certifies wastewater operators, requires at least one certified collection system operator for a system of collection, pumping, and conveyance facilities that is operated separately from the facility that treats, stabilizes and disposes of wastewater. The MPCA classifies these facilities as type-S facilities with four subclasses (A, B, C, & D), based upon the size of the population served. If the collection facility is not operated separately from the treatment facility, the designated operator of the treatment facility is responsible and does not need a type S certificate.

OHIO: The Ohio Environmental Protection Agency's Division of Drinking and Groundwater certifies the person responsible and in charge of a collection system. Sewerage systems, a.k.a. collection systems, are classified. Sewerage systems may be classified at one of two levels (I and II) based upon design flow (< or > 0.15 MGD respectively).

8. Summary of factual data and analytical methodologies used in the rules and how any related findings support the regulatory approach chosen:

Given the increase in on-line training courses and programs for wastewater treatment plant operators, especially in the last ten years, it became apparent and imperative that the Department revise and modernize its certification program to allow operators more flexibility and choices in achieving advanced certification beyond only examinations. During the revisions of ch. NR 114, Wis. Adm. Code, the Department of Workforce Development, Bureau of Apprenticeship Standards received federal grant monies to develop an Apprenticeship Program for Wastewater Treatment plant operators. The Apprenticeship Program has since been developed and now available for wastewater treatment plant operators. Operators earn 6 of 10 points towards advanced certification by completing this program.

The concept of an advanced certification point system came from the Kansas wastewater operator certification program. Kansas uses a point system to determine what level exam an operator is eligible to take. The Department adapted the point system concept by developing one for advanced certification. Advanced certification allows operators to gain a deeper insight and knowledge about a particular aspect of wastewater treatment. A deeper and stronger knowledge through advanced certification is critical in operating more complex wastewater treatment plants or require greater operational skills because of various factors.

Concurrent to these ch. NR 114, Wis. Adm. Code revisions, the Department has also drafted revisions to various rules for collection systems, more commonly referred to as the “Sanitary Sewer Overflow (SSO) Rules” (WT-23-11). These rule revisions are primarily intended to prevent, to the extent possible, the overflow of untreated sewage to state waters and land surfaces and/or the backup of sewage into basements and buildings where such discharges present a risk to public health and may cause environmental harm. The SSO rules require that all sewage collection system owners implement defined programs to assure the long-term viability of those systems. Effective programs for the proper operation and maintenance of the systems will be less costly in the long-term by reducing and preventing infiltration and inflow that lead to SSOs and building backups, assuring treatment facility capacity is not exceeded, and proactively dealing with potential failures of the system components. The SSO rules will require that all collection system owners develop and implement a Capacity, Management, Operation and Maintenance (CMOM) program within three years to assure proper long-term operation of sewage collection systems. The SSO Rules will also specify what components must be included in a CMOM and the documentation and reporting requirements associated with such a program.

With CMOM requirements and implementation of the SSO Rules, certification requirements for collection system operators will complement those rule revisions. It will provide the needed knowledge and skills for operators to develop and implement successful CMOM Programs and better operate and maintain their collection systems. Improved operational knowledge of sanitary sewer systems directly translates into protecting public health and water quality from basement back-ups and sanitary sewer overflows. Knowledgeable collection system operators also help protect and maintain the large investment of government funding of infrastructure. The Department evaluated collection system certification programs for every state in the nation. Approximately 46% of the states require some level of collection system certification.

In March 2010, the Department established a wastewater operators trainers stakeholders workgroup to assist and advise the Department in revising the certification program for wastewater treatment plant operators. The workgroup consisted of representatives from the Wisconsin Wastewater Operators Association (WWOA), Wisconsin Rural Water Association (WRWA), private trainers, consultants, technical colleges, UW-Stevens Point, and EPA. Several workgroup meetings were held during 2010-2012 in crafting the revisions. Comments and ideas for revisions from the workgroup members contributed significantly to the changes and modernization of the certification program.

9. Analysis and supporting documentation used to support the small business analysis:

No small businesses, as defined in s. NR 227.114 (1), Wis. Adm. Code will be affected by changes in wastewater treatment plant operator certification requirements. Small businesses, as defined, do not generally own and operate treatment plants, or at least mechanical treatment plants with surface water discharges, that require certified operators under ch. NR 114, Wis. Adm. Code. Any fiscal impacts that would occur from these rule changes would affect municipalities and larger industries, that have treatment plants or municipal sanitary sewer collection systems.

For example, in the small businesses analysis prepared for the phosphorus water quality criteria, Board Order WT-25-08, that could also potentially apply to treatment plant operator certification, 11 dairy operations were identified that met the small business definition. Small cheese factories may be the best example of a small business. Of those 11, 6 apply wastes to the land through a variety of methods and are exempt from certification requirements. The other 5 discharge their wastes to municipal wastewater treatment plants, also exempt from certification requirements.

Based on this analysis, the Department concluded there are few, if any, small businesses that will be affected by changes in wastewater treatment plant or sanitary sewer system operator certification requirements.

10. Effect on small business, including how this rule will be enforced:

Based on the above analysis, the Department determined that few, if any, small businesses would be affected by the proposed changes in wastewater treatment plant operator certification requirements. Small cheese factories may be the best example of a small business that would have wastewater treatment and management needs. Many of these small dairies land apply their wastewater and thus are excluded from operator certification requirements.

A positive effect on small business will be additional training opportunities for consultants and private trainers to provide advanced training (on-line or classroom) to operators, especially those seeking advanced certification through education. The requirement for municipal collection systems to have a certified operator will result in the development of sanitary sewer collection system classes by wastewater education based businesses and technical colleges for municipal operators who will need this certification in the next 5-10 years.

11. Agency Contact:

Jack Saltes
Bureau of Water Quality
P.O. Box 7921
101 South Webster Street
Madison, WI 53707
jack.saltes@wisconsin.gov

12. Place where comments are to be submitted and deadline for submittal:

Jack Saltes
Bureau of Water Quality
P.O. Box 7921
101 South Webster Street
Madison, WI 53707
jack.saltes@wisconsin.gov

SECTION 1. subch. I of NR 114 (title) is amended to read:

SUBCHAPTER I — CERTIFICATION OF WATERWORKS ~~AND WASTEWATER~~
~~TREATMENT PLANT OPERATORS~~

SECTION 2. NR 114.01, NR 114.02, NR 114.03 (2), (3), (5), and (6) are amended to read:

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.

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.

NR 114.03 (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~~.

NR 114.03(3) "Classification" or "class" means a number assigned to a waterworks ~~or wastewater treatment plant~~ based on a rating system.

NR 114.03(5) "Direct responsible charge" means to provide detailed on-site technical direction of the operation of a waterworks ~~or wastewater treatment plant~~.

NR 114.03(6) "Experience in the operation of a waterworks ~~or a wastewater treatment plant~~" means ~~either~~:

SECTION 3. NR 114.03(6)(b), (8), and (9) are repealed.

SECTION 4. NR 114.03(10), (11), (12), and (13) are amended to read:

NR 114.03(10) "Operate" means to be in direct responsible charge of a subclass or subclasses of operations at a waterworks ~~or a wastewater treatment plant~~.

NR 114.03(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.

NR 114.03(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 ~~waterworks or wastewater treatment plant~~.

NR 114.03(13) "Subclass" means a letter assigned to 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.

SECTION 5. NR 114.03(14), (a), (b), (c), and (16) are repealed.

SECTION 6. NR 114.04 and NR 114.05(1) are amended to read:

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.

NR 114.05(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.

SECTION 7. NR 114.05(8) is repealed.

SECTION 8. NR 114.06(1)(b) is amended to read:

NR 114.06(1)(b) Three year renewal-~~waterworks or wastewater~~.....\$45.00

SECTION 9. NR 114.07(5)(b)1. and (b)2. are repealed.

SECTION 10. NR 114.07(5)(c) is amended to read:

NR 114.07(5)(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.

SECTION 11. NR 114.08 and NR 114.09 are repealed.

SECTION 12. NR 114.10 is amended to read:

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 ~~the plant~~ that waterworks.

SECTION 13. NR 114.12 (title) is amended to read:

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

SECTION 14. NR 114.12(1)(a), (b), (c), (d), NR 114.14(1)(c), and (d) are repealed.

SECTION 15. NR 114.14(1)(h) is amended to read:

NR 114.14(1)(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.

SECTION 16. Subchapter IV of NR 114 is created to read:

SUBCHAPTER 4 - CERTIFICATION OF WASTEWATER TREATMENT WORKS
OPERATORS

NR 114.38 Purpose. The purpose of this subchapter is to establish rules for the certification of wastewater treatment works operators pursuant to s. 281.17 (3), Stats.

NR 114.39 Applicability. The provisions of this subchapter are applicable to all owners and operators of wastewater treatment works as defined in this subchapter and under the coverage of a WPDES permit.

NR 114.40 Definitions. In this subchapter:

(1) “Advanced coursework” means education that allows students to gain deeper insight and knowledge into a particular aspect of wastewater treatment. It concentrates wastewater studies in only a few subjects in blocks of a minimum of 20, 40, 60 or 80 hours. Technical talks or presentations at meetings, single or part day classes or training sessions, seminars or conferences are not included in this definition.

(2) “Associates degree” means a wastewater treatment related degree earned at a 2 year technical college.

(3) “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 levels and subclasses.

(4) “Certified operator” means a person who has meet the requirements of this subchapter and has been issued a certificate by the department to work at a given level and subclasses of wastewater treatment works.

(5) “Department” means the department of natural resources.

(6) “Direct responsible charge” means to provide detailed on-site technical direction in the operations of a wastewater treatment works.

(7) “Experience” means either:

(a) In the first year of experience, to have performed the basic duties 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 works for the stated number of months, or to have provided daily on-site technical supervision of the operator or operators performing those tasks.

(c) One year of experience is equivalent to twelve months of wastewater experience with a minimum of at least 1000 hours in the hands-on operation and maintenance of a wastewater treatment plant or collection system.

(8) “Graduate degree” means an advanced degree, M.S. or Ph.D, from an accredited college or university with graduate studies and emphasis in wastewater treatment or water pollution control engineering.

(9) “Health and safety training” means classes relating to wastewater treatment plant operations and maintenance and includes but not limited to confined space, excavation, hearing conservation, water safety, blood-borne pathogens, CPR- First Aid, mechanical and electrical safety, fall protection, hazardous plant chemicals as well as others.

(10) “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.

(11) “Level” means the basic or advanced classification assigned to a wastewater treatment plant operator pursuant to this subchapter.

(12) “Major contributing industry” means an industrial or commercial facility that is a user of a publically owned treatment works, 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 treatment works or on the quality of effluent from a wastewater treatment plant.

(13) “Mechanical plant” means a plant that is designed and constructed with a series of steel or concrete basins using pumps, pipes and other equipment to actively convey and treat wastewater. Pond, lagoon or natural systems are not part of this definition.

(14) “Operate” means to be in direct responsible charge of a subclass or subclasses of operations at a wastewater treatment plant and a sanitary sewer collection system.

(15) “Operator-in-charge” means the person designated by the owner of the wastewater treatment works to be in direct responsible charge of a subclass of operations of a treatment plant or of a sanitary sewer collection system and are involved in hands-on day-to-day operations. Utility managers, city engineers, director of public works or the equivalent are not included in this definition.

(16) “Operator-in-training” means a person who has passed the basic wastewater examination and one basic subclass examination but does not have the one year of specific subclass experience.

(17) “Owner” means the state, county, town, sanitary district, city, village, metropolitan sewerage district, corporation, firm, company, institution, association, utility district, school district, sewerage commission or individual owning or operating a WPDES permitted wastewater treatment works.

(18) “Satellite sewage collection system” means a municipally owned or private sewage collection system that conveys wastewater to another sewerage system which provides the wastewater treatment.

(19) “Sanitary sewage collection system” means the common sanitary sewers, interceptor sewers, pump stations and supporting equipment in a community that receive wastewater from buildings and conveys it to a wastewater treatment plant.

(20) “Subclass” means a letter assigned a treatment works based upon a particular type of treatment process at the plant and to the letter assigned to a person based on passing a subclass examination for a specific operational process.

(21) “Tertiary phosphorus removal” means the advanced physical and chemical removal of phosphorus to achieve meeting very low phosphorus levels not achievable by conventional methods.

(22) “Treatment works” has the meaning in s. 283.01 (18), Stats., and includes wastewater treatment plants and sanitary sewer collection systems.

(23) “Undergraduate degree” means a Bachelor’s degree earned at a 4 year accredited college or university in which at least 240 hours were wastewater treatment related.

(24) “Wastewater treatment plant” means a facility that provides for the treatment of sanitary or industrial wastewater or both. The following types of facilities are excluded from operator certification:

- (a) facilities defined as private sewage systems in s. 145.01 (12), Stats.
- (b) pretreatment facilities which discharge to a public sewer system for treatment.
- (c) industrial wastewater treatment facilities which consist solely of a land disposal system.
- (d) digesters at agricultural operations that reuse, recycle or landspread the treated wastes.
- (e) concentrated aquatic production facilities (fish hatcheries) in which no biological treatment process is utilized.

(25) “WPDES permit” means a permit issued to a publicly owned treatment works under s. 283.31, Stats., for the purposes of controlling pollutant discharge.

NR 114.41 General requirements. (1) Every WPDES permitted treatment works shall have a designated operator-in-charge holding a current and valid certificate pursuant to this subchapter. The designated operator-in-charge shall be certified at the level and in all subclasses of the treatment plant, except laboratory. Treatment plant owners shall notify the department of any changes within 30 days.

(2) Owners of treatment works, which includes both the treatment plant and sanitary sewer collection system to it, shall have a designated collection system operator-in-charge for sanitary sewer collection systems. The designated operator-in-charge shall have passed and be certified in the sanitary sewer collection system subclass. For owners of satellite sewerage collections systems, collection system operator certification is voluntary.

(3) All wastewater treatment works covered by a WPDES permit that have a registered or certified laboratory shall have at least one operator that works in the laboratory certified at the basic level in the laboratory subclass.

(4) Upon a change in a wastewater treatment work’s classifications caused by the addition of a new subclass listed in s. NR 114.44 (3), the operator-in-charge shall have 12 months to pass the necessary subclass examinations and to gain the one year of subclass specific experience.

(5) Upon a change in a wastewater treatment works level of operations from basic to advanced, the operator-in-charge shall have 36 months to obtain advanced certification, provided the person is making earnest efforts towards advanced certification and that the treatment plant is in compliance with all terms and conditions of its WPDES permit.

(6) Owners of wastewater treatment plants, in the event of the unexpected loss of the designated operator-in-charge, shall ensure the continued proper operation & maintenance of the treatment plant by another certified operator in all subclasses of the plant. The new designated operator-in-charge has the timelines established in sub. (5) in meeting the operator-in-charge requirements of sub. (1).

NR 114.42 Examinations and applications. (1) Examinations, education and on-the-job experience shall be used to determine knowledge, skill and the ability of the applicant to perform duties at a wastewater treatment works. A score of 75% or higher shall be a passing score on each examination. An applicant desiring to be certified to perform duties at a wastewater treatment works shall submit a completed exam application to the department at least 28 days prior to the established date of the written examination. The applicant shall submit the completed application on an application form provided by the department. Fees as listed in s. NR 114.43 shall accompany the application.

(2) Written examinations shall be conducted on week days at least 2 times annually in locations specified by the department.

(3) Basic examinations shall consist of 25 to 50 questions specific to the subclass. The wastewater treatment plant advanced examination shall consist of 100 questions with content from all subclasses.

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

(5) Examinations will not be returned to an examinee. Examination results will be mailed to the examinee 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 study guides pertaining to each subclass.

(8) A wastewater treatment plant operator shall take and successfully complete the general wastewater examination and subclass examinations to become an operator-in-training in each subclass.

(9) A wastewater treatment plant operator shall take and successfully complete the requirements of sub. (8) and meet one-year subclass-specific experience to become a basic level operator in a subclass.

(10) A wastewater treatment works operator may take the advanced certification examination in wastewater treatment plants to earn four points towards advanced certification according to the table in s. NR 114.45 (1) (c).

NR 114.43 Fees. (1) Fees for certification shall be as follows:

(a) basic examinations.....	\$25.00
(b) advanced examination.....	\$50.00
(c) advanced certification application.....	\$100.00
(d) certification renewal.....	\$45.00

- (e) late renewal penalty..... \$25.00
- (f) reciprocity application..... \$100.00

(2) Fees shall accompany completed application forms. Fees are non-refundable.

(3) Certifications shall be renewed every 3 years. The renewal fee is due no later than the expiration date of the certificate. A late renewal penalty fee will be assessed for any renewal application postmarked after the expiration date.

NR 114.44 Classification of wastewater treatment plants. (1) Each wastewater treatment plant shall be assigned a basic or advanced rating. An advanced facility is one that meets any one of the following criteria:

- (a) is a mechanical plant with an annual average design flow greater than 1.0 MGD; or
- (b) has a biochemical oxygen demand (BOD) limit of 10 mg/L or less; or
- (c) has surface water limits for total phosphorus or total nitrogen and utilizes a biological nutrient removal process in their removal; or
- (d) uses a tertiary phosphorus removal process to achieve ultralow phosphorus limits; or
- (e) is a municipal treatment plant that receives wastewater from a major contributing industry; or
- (f) is a municipal treatment plant that produces Class A biosolids.

Wastewater treatment plants that do not meet any of these criteria shall be classified as a basic facility.

(2) Wastewater treatment systems that utilize special or unique biological, physical, chemical, or other unique treatment methods shall be required to have an operator certified in subclass U.

(3) Thirteen wastewater treatment works subclasses are established in Table 1.

**Table 1
Wastewater Treatment Works Categories and Subclasses**

CATEGORY	SUBCLASS	SUBCLASS NAME	DESCRIPTION
<i>Biological treatment</i>	A1	Suspended Growth Processes	Activated sludge and variants
	A2	Attached Growth Processes	Trickling filters, RBCs and biotowers
	A3	Recirculating Media Filters	
	A4	Ponds, Lagoons and Natural Systems	
	A5	Anaerobic Treatment of Liquid Waste	High strength liquid waste treatment system

<i>Solids separation</i>	B	Solids Separation	Clarifiers, membranes, filters, tertiary phosphorus removal, etc
<i>Solids treatment</i>	C	Biological Solids/Sludge – Handling, Processing and Reuse	Aerobic and anaerobic digestion, thickening, dewatering, land application
<i>Nutrient removal</i>	P	Total Phosphorus	
	N	Total Nitrogen	
<i>Disinfection</i>	D	Disinfection	Chlorination, ultraviolet radiation, ozone
<i>Laboratory</i>	L	Laboratory	Registered or certified on-site laboratories
<i>Special</i>	U	Unique Treatment Systems	Unique, special treatment plants that use biological, chemical or physical methods
<i>Collection System</i>	SS	Sanitary Sewer Collection System	

NR 114.45 Qualifications and level of wastewater treatment works operators. (1)

Two levels and 13 subclasses of wastewater treatment works operators are established. Operator subclasses are the same as plant subclasses listed in s. NR 114.44 (3). To qualify for certification at a given level and subclass, a person shall meet the appropriate examination, education and experience requirements.

(a) *Operator-in-training.* Pass the basic general wastewater examination and a basic subclass examination.

(b) *Basic level.* To qualify for basic certification in a specific subclass, a person shall pass the basic general wastewater examination, the specific subclass exam and have one year of satisfactory experience in that subclass.

(c) *Advanced Level.* An advanced certification point system is established in Table 2. To qualify for advanced certification in a given grade and subclass, a person shall have earned a total of 10 points and met the requirements of s. NR 114.45 (1) (b). Of the 10 points, 4 to 6 years of experience accounts for 4 to 6 points. A minimum of 4 points of experience is required. Six points is the maximum number of points that may be given for experience.

**Table 2
Advanced Certification Point System**

TYPE	POINT METHOD	POINTS	MINIMUM HOURS
Experience	48 Months Work Experience, Minimum	4	
	60 Months Work Experience	5	

	72 Months Work Experience, Maximum	6	
Degree	4 Yr Undergraduate or Graduate Degree	6	
	2 Yr Water/Wastewater Associates Degree	6	
Apprenticeship	State Approved Apprenticeship Program	6	
Exam	100 Multiple Choice Q&A Exam	4	
Advanced course		2	80
		1.5	60
		1	40
		0.5	20

NOTE: An advanced course of 18 -19 hours may be eligible for 0.5 points if listed by the department under sub. (3)

(2) A person shall submit an advanced certification application provided by the department documenting education, experience and the advanced certification points earned. Diplomas or certificates showing successful education completion shall be attached to the application. Transcripts highlighting wastewater related classwork shall also be attached. Applicants shall be notified of status of their advanced certification with 90 days of receipt of a complete application.

(3) The department will establish and update a list of eligible advanced course offerings by September 1 of each year. Trainers shall submit an application provided by the department for approval of advanced courses by no later than June 1 of each year. Trainers of listed courses shall annually renew their course application by June 1 each year and notify the department of any changes in course content.

(4) A general wastewater examination is not required for unique treatment processes (subclass U) or sanitary sewer collection systems (subclass SS) basic certifications.

(5) Upon development and availability of the sanitary sewer collection system, subclass SS study guide and examination, and at the time of permit reissuance, collection system operators will have a permit term of 5 years to obtain collection system certification.

NR 114.46 Certificate issuance, renewal and continuing education. (1) Upon satisfactory fulfillment of the qualifications required by this subchapter, the department shall issue a certificate to a person indicating the certification level and subclasses for which the person has qualified.

(2) All certificates shall expire 3 years from the date of issuance. Certificates may be updated to show additional examinations passed, additional experience gained and changes in certification level and classifications, but the expiration date will not change. Updating a

certificate will not extend nor change the expiration date. Certificates shall only be renewed subject to the requirements of sub. (3).

(3) A person who desires to renew a certificate shall submit evidence of having met the continuing education requirements on forms provided by the department. Training or courses must be approved by the department. These may include, but are not limited to courses sponsored by the department, university, technical college, technical sessions at meetings of professional organizations, in-house training and on-line training classes that are wastewater related. Failure to successfully complete and document the required number of hours of continuing education training within the 3 year period shall result in rejection of a certificate renewal application.

(4) Renewal applications shall meet the following continuing education requirements:

(a) Basic wastewater treatment works certified operators require 18 hours per 3 year renewal period.

(b) Advanced wastewater treatment works operators require 24 hours per 3 year renewal period.

(c) Wastewater treatment works operators may use up to 6 hours of health and safety training per 3 year renewal period.

(d) Basic wastewater treatment works operators may use up to 3 hours of supervisor or management training per 3 year renewal period. Advanced wastewater treatment works operators may use up to 6 hours of supervisor or management training per 3 year renewal period.

(5) A person whose certificate has expired may within one year of 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 will have to re-take the basic subclass examinations. To regain advanced certification, the basic examinations must be passed and the person will have to reapply for advanced level certification.

(6) Certificates may be issued through reciprocity, without examination, to a comparable level and subclass to any person who holds a current wastewater treatment works operator 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 meets the equivalent requirements of this subchapter in examinations, education and experience.

NR 114.47 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 sewage from a treatment works without notifying the department as required by the WPDES permit.

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

(e) Tampered with or manipulated any samples to misrepresent the actual sample results.

(f) Falsified any monitoring, operating or other records submitted to the department.

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

(h) Used deception or any form of dishonesty when writing examinations, or removed 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.

NR 114.48 Subclass Conversions. (1) Operator wastewater certifications in the subclasses on the effective date of the code shall be converted as outlined in Table 3. An operator holding advanced certification at the effective date of this code will maintain all advanced certifications under the new system. An operator at Grade 3 or Grade 4 certification in a subclass prior to the effective date of the code shall have earned 10 points towards advanced certification except subclasses K and L. Having 10 points, operators will become advanced in any subclasses that they are grade 1 or higher.

(2) Operators that have passed the former advanced general wastewater examination and at least 4 advanced subclass examinations will be granted 4 points towards advanced certification, equivalent to the 4 points for passing the new advanced examination.

(3) Subclass L – Electroplating and Metal Finishing is eliminated as a subclass and there is no conversion.

**Table 3
Certification Subclass Conversion Table**

FORMER SUBCLASS NAME	FORMER SUBCLASS		NEW SUBCLASS NAME	NEW SUBCLASS
<i>Primary settling</i>	<i>A</i>	→	Solids Separation	<i>B</i>
<i>Trickling filters and RBCs</i>	<i>B</i>	→	Biological Treatment - Attached Growth	<i>A2</i>
		→	Solids Separation	<i>B</i>
		→	Biological Solids/Sludge Handling and Processing	<i>C</i>
<i>Activated Sludge</i>	<i>C</i>	→	Biological Treatment - Suspended Growth	<i>A1</i>
		→	Solids Separation	<i>B</i>
		→	Biological Solids/Sludge Handling and Processing	<i>C</i>
<i>Stabilization ponds and aerated lagoons</i>	<i>D</i>	→	Ponds, Lagoons and Natural Systems	<i>A4</i>
<i>Disinfection</i>	<i>E</i>	→	Disinfection	<i>D</i>
<i>Anaerobic digestion</i>	<i>F</i>	→	Biological Solids/Sludge Handling and Processing	<i>C</i>
<i>Mechanical sludge dewatering</i>	<i>G</i>	→	Biological Solids/Sludge Handling, Processing and Reuse	<i>C</i>
<i>Filtration</i>	<i>H</i>	→	Solids Separation	<i>B</i>
<i>Phosphorus removal</i>	<i>I</i>	→	Nutrient Removal – Total Phosphorus	<i>P</i>
<i>Laboratory</i>	<i>J</i>	→	Laboratory	<i>L</i>
<i>Special K</i>	<i>K</i>	→	Unique Treatment Process	<i>U</i>

NOTE: The department will use its discretion converting Special K subclasses that are specific to the newly created subclasses.

SECTION 17. EFFECTIVE DATE. This rule, except for SECTION 16 s. NR114.45(3), shall take effect one year following publication in the Wisconsin Administrative Register as provided in s. 227.22 (2) (intro.), Stats. or January 1, 2015, whichever is later. SECTION 16 s.

NR114.45(3) shall take effect on the first day of the month following publication in the Wisconsin Administrative Register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 18. BOARD ADOPTION. The forgoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

Dated at Madison, Wisconsin _____

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Cathy Stepp, Secretary